ECONOMIC RECOVERY & LIVELIHOODS PROGRAM (ERLP) - YEMEN

QUARTERLY REPORT

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USAID/Yemen - Economic Recovery & Livelihoods Program (ERLP)

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List of Acronyms

A2F	Access to Finance
ACAPS	The Assessment Capacities Project
ACH	Automated Clearing House
ACT	Aden Container Terminal
AEO	Authorized Economic Operator
AGT	Aden Gulf Terminal
AIS	Automated Identification System
AMELP	Activity Monitoring, Evaluation, and Learning Plan
AML	Anti-Money Laundering
AR	Advance Ruling
ATM	Automated Teller Machine
BCP	Border Crossing Points
BIS	Bank for International Settlement
BOD	Board of Directors
BoE	Bank of England
BOP	Balance of Payments
BSD	Bank Supervision Department
CAMELS	Capital Adequacy, Asset Quality, Management, Earnings, Liquidity, and Sensitivity
CAP	Credit Application Package
CB	Central Bank
CBY	Central Bank of Yemen
CCRT	Catastrophe Containment and Relief Trust
CD	Compact Disc
CDMRS	Commonwealth Debt Management & Reporting System
CFT	Counter Financing of Terrorism
CIT	Corporate Income tax
CNY	Chinese Yuan
COBIT	Control Objectives for Information Technology
CPI	Consumer Price Index
CRO	Chief Risk Officer
CY	Calendar Year

DFID	United Kingdom's Department for Foreign and International Development
DMFAS	Debt Management and Financial Analysis System
DSSI	Debt Service Suspension Initiative
DVD	Digital Video Disc
DWH	Data Warehouse System
ERLP	USAID's Economic Recovery and Livelihoods Program
ETL	Extraction Transformation and Loading
EU	European Union
EUR	Euro
FAL	Convention on Facilitation of International Maritime Traffic
FATF	Financial Action Task Force
FBRNY	Federal Reserve Bank of New York
FCDO	Foreign, Commonwealth & Development Office
FFS	Farmer Field Schools
FI	Financial Institution
FIU	Financial Intelligence Unit
FRM	Foreign Reserve Management
FTE	Full-time Equivalent
FUT	Factoring Underwriting Tool
FX	Foreign Exchange
FXRM	Foreign Exchange and Reserve Management
FY	Fiscal Year
GAC	Gulf Agency Company
GBP	British Pound
GDP	Gross Domestic Product
GOY	Government of Yemen
GRC	Governance, Risk Management, and Compliance
GST	Goods and Services Tax
HCCCEB	Higher Council of Community Colleges Executive Board
HDD	Hard Disk Drive
HR	Human Resources
HRM	Human Resource Management

IBM	Integrated Border Management
IBY	International Bank of Yemen
ICT	Information Communications Technology
ICU	Intensive Care Unit
IDA	International Development Association
IFI	International Financial Institution
IMF	International Monetary Fund
IMO	International Maritime Organization
IT	Information Technology
JC	Job Creation
KSA	Kingdom of Saudi Arabia
LOC	Letters of Credit
LOFF	List of Foreign Fisheries
LOP	Life of Project
LPG	Liquified Petroleum Gas
M2	Broad Money
MEG	USAID's Middle East Economic Growth Best Practices Program
MEL	Monitoring, Evaluation, and Learning
MENA	Middle East and North Africa
MFI	Monetary Financial Institution
MFS	Mobile Financial Services
MFW	Ministry of Fish Wealth
ML	Market Linkage
MMPA	Marine Mammal Protection Act
MoC	Ministry of Culture
MOCS	Ministry of Civil Service
MOF	Ministry of Finance
MOH	Ministry of Health
Moinfo	Ministry of Information
MOIT	Ministry of Industry and Trade
MOP	Ministry of Petroleum
MOPIC	Ministry of Planning and International Cooperation

MOU	Memorandum of Understanding
MOVET	Ministry of Vocation Education and Training
MSME	Micro, Small and Medium Enterprises
MSW	Maritime Single Window
MT	Metric Ton
MTC	Maritime Training Center
MTM	Mark-to-Market
NAF	National Fish Canning and Packing Factory
NCB	National Commercial Bank
NOA	Notification of Arrival
NOAA	US National Oceanic and Atmospheric Administration
NPC	National Payments Council
NPL	Non-Performing Loan
NTFC	National Trade Facilitation Committee
OMO	Open-Market Operation
OPEC	Organization of the Petroleum Exporting Countries
OTJ	On-the-job
P&L	Profit and Loss
PA	Partnership Agreement
PCA	Post-Clearance Audit
PCS	Port Community System
PERSGA	Regional Organization for Conservation of Environment of the Red Sea and Gulf of Aden
PFI	Partner Financial Institution
PITT	Performance Indicator Tracking Table
PIU	Project Implementation Unit
PM	Prime Minister
PPD	Plant Protection Department
PSA	Proft-Sharing Agreements
PSD	Payment System Department
PSP	Payment Service Provider
RBA	Risk Based Approach
RKC	WCO Revised Kyoto Convention

RM	Risk Management
ROYG	Republic of Yemen Government
RTGS	Real-Time Gross Settlement
SAFE	Safety Analysis and Functional Evaluation
SAR	Saudi Riyal
SDR	Special Drawing Rights
SL	Sustainable Livelihood
SME	Small and Medium Enterprises
SOP	Standard Operating Procedure
STP	Straight Through Processing
STR	Suspicious Transaction Report
SWIFT	Society for Worldwide Interbank Financial Telecommunication
TA	Technical Assistance
TANA	Technical Assistance Needs Assessment
TBT	Technical Barriers to Trade
TDW	Tons Deadweight
TEU	Twenty-foot Equivalent Unit
TF	Trade Facilitation
TFA	Trade Facilitation Agreement
TOR	Terms of Reference
TOS	Terminal Operating System
TOT	Training-of-Trainers
TP	Yemen Trade Portal
TPM	Third-Party Monitoring
TT	AEO Trusted Trader
TVET	Technical and Vocation Education and Training
UAE	United Arab Emirates
UK	United Kingdom
UKHO	United Kingdom Hydrographic Office
UKMTO	United Kingdom Marine Trade Operations
UNCTAD	United Nations Conference on Trade and Development
UNDP	United Nations Development Program

UNVIM	United Nations Verification and Inspection Mechanism for Yemen
U.S.	United States
USAID	United States Agency for International Development
USB	Universal Serial Bus
USD	United States Dollar
USG	United States Government
VAR	Value at Risk
VAT	Value-Added Tax
VC	Value Chain
VMT	Vehicle Mounted Terminal
VTMIS	Vessel Traffic Management Information System
VTS	Vessel Traffic Services
WB	World Bank
WCO	World Customs Organization
WFD	Workforce Development
WTO	World Trade Organization
YASPC	Yemen Arabian Sea Ports Corporation
YCA	Yemen Customs Authority
YCB	Yemen Commercial Bank
YCLE	Yemen Continuous Learning Evaluation
YER	Yemeni Rial
YESS	USAID's Yemen Economic Success and Stabilization Program
YKB	Yemen-Kuwait Bank
YSMO	Yemen Standardization and Metrology Organization

EXECUTIVE SUMMARY

The Economic Recovery and Livelihoods Program (ERLP) supports Yemen's journey to self-reliance by focusing on improving critically important macroeconomic stabilization and private-sector competitiveness enhancement conditions and outcomes. ERLP advances best practices to lay the institutional groundwork for sound macro-financial policy, addresses trade barriers that limit the flow of commercial and humanitarian assistance, promotes sustainable livelihoods, and raises the competitiveness of and generate employment opportunities in key high potential sectors of the economy. The technical assistance/training support provided through ERLP is tightly tailored to socio-economic and institutional conditions in Yemen, a low-income, in-conflict country, in the midst of an ongoing economic and humanitarian crisis. Additionally, Yemen now faces the challenge of dealing with the global COVID-19 pandemic without an adequate, well-functioning healthcare system or sufficient resources.

ERLP Component I seeks to improve macroeconomic management by strengthening the capacity of key Republic of Yemen Government (ROYG) institutions, including the Central Bank of Yemen (CBY), the Ministry of Finance (MOF), the Customs Authority, and the Port Authorities. It aims to restore macroeconomic stability, enhance fiscal management efficiency, and increase international trade flows. Specific focus is paid to developing and implementing cutting-edge reforms in monetary policy, fiscal policy, and trade facilitation.

Component II seeks to improve microeconomic conditions. It focuses on strengthening private sector performance, enhancing the competitiveness of small and medium-sized enterprises (SMEs) and smallholder farmers to create jobs, increase household incomes and improve living conditions. A thriving SME sector is crucial to Yemen's economic recovery as it holds the potential to create jobs and bring sustainable income to a significant portion of the population. Agriculture and fisheries also constitute a primary source of livelihoods employing over 50 percent of the rural workforce and accounting for more than 20 percent of GDP.

Gender-responsive analyses and approaches are integrated across ERLP components. The project prioritizes outreach to female producers, job seekers, and entrepreneurs, successfully leveraging greater economic opportunities through training, TA, and market linkages that work within cultural norms and push to create shifts in attitudes and practice based on win/wins for livelihoods and economic advancement. We will also create marketing strategies to promote women-led or owned businesses and work with Partner Financial Institutions to provide access to finance for women-owned businesses.

COMPONENT I: IMPROVING MACRO-ECONOMIC FUNCTIONS OF KEY INSTITUTIONS

MONETARY POLICY DEVELOPMENT AND IMPLEMENTATION

ERLP provides effective macroeconomic management advisory services within the current crisis environment. It undertakes coordinated action with the CBY to control monetary growth, stabilize price and exchange-rate expectations, enhance the functioning of the payments system, and improve financial sector regulatory oversight to help gradually restore confidence in the financial system.

In this regard, ERLP focuses on upgrading CBY's institutional capacity and provides technical assistance and training designed to promote critical policy, regulatory and institutional reform in the following areas: (i) Monetary Policy And Cash Currency Management, (ii) Foreign Exchange and Reserve Management, (iii) Domestic Payments and Settlement Systems, (iv) Monetary Statistics and reporting; (v) COVID-19 Response Options; (Vi) Anti-Money Laundering and Countering Terrorist Financing; and; (vii) Banking Supervision And Risk Management. This myriad of strategic central bank regulatory and institutional reform and related capacity-building interventions is reinforced through the project's support of the CBY Action Plan, which contains macro-financial regulatory and institutional reform actions the CBY needs to achieve to carry out core central banking functions.

In the *Monetary Policy and Management reform* area, ERLP has focused on implementing a sound rudimentary monetary control framework to promote further improvement in core macro-stability conditions and gradually restore trust in the national currency. The project assisted the CBY in drafting clear and transparent guidelines for cash management as part of a revision of cash management policies and procedures. This is intended to ensure the integrity and availability of currency across the country. ERLP also performed a detailed liquidity forecast and a sectoral decomposition of cash currency needs for CY 2020. This exercise enabled the CBY to control monetary emission and cash distribution in accordance with the transactional needs and the absorptive capacity of the economy.

The results of the ERLP assessment of the CY 2020 Monetary Plan demonstrated the impact of the project's multifaceted reform program. A significant decline was recorded in the growth of the rates of all money supply metrics. Broad money and base money grew by 15 percent and 13.3 percent in 2020, respectively. In the same manner, the monetary emission growth rate was reduced in a range of 12-15 percent over the period 2019-2020 (15.1 percent in 2020 and 12.4 percent in 2019) compared to 35.8 percent in 2018 and 37.6 percent in 2017.

The project also trained and assisted the CBY Research Department in compiling and issuing quarterly bulletins that illustrate key macro-financial statistics. The publication will serve as a core reference in an effective and well-informed monetary policy decision-making process. The first *Quarterly Bulletin* was published in December 2020, and the second issue on March 31, 2021.

ERLP *Foreign Reserve & Exchange Management* experts helped the CBY lay the groundwork for a stable, efficient, and transparent FX management regime. This quarter, ERLP undertook strategic technical assistance and training activities to facilitate enhanced FX management policies and procedures at the CBY. In this regard, substantial progress was made on fulfilling the requirements for regaining access to the over $400 million currently held in frozen FX accounts.

ERLP is also helping the CBY develop a foreign reserves investment and utilization strategy, including a comprehensive set of policy guidelines on the efficient use and investment of the unfrozen and new foreign reserves; as well as establishing a transparent and efficient procedural framework for allocating foreign exchange resources to the market n a competitive basis. This, in turn, will help the CBY both manage foreign reserves in a stable and efficient manner; and facilitate the transition to a market-based FX allocation system, which promotes efficient price discovery signals and can lay the groundwork for the establishment of a flexible exchange rate determination system in Yemen.

The Payments and Settlement Systems subcomponent is focused on further enhancing the organizational capacity and functionality of the newly established CBY Payments System Department (PSD). It is undertaking targeted support activities designed to facilitate progress towards the establishment of a more efficient electronic interbank payments and check-clearance system. The project also is continuing its focus on helping establish a sound regulatory and operational framework for Mobile Financial Services (MFS) operations in Yemen.

This quarter, critical progress was made with the unification of all licensed bank accounts and the centralization of the national check clearing process. Checks will be made electronically readable, and the current manual entry of physical checks is being replaced by a new digitalized process in a central clearinghouse, greatly expediting the process. The CBY should, when this system is implemented, be able to monitor and track bank accounts almost instantly.

ERLP also ran a pilot program with the CBY and a network of commercial banks to facilitate the near-same-day electronic settlement of major transactions, using SWIFT FIN and the existing core banking system. This represents a major step closer toward full implementation of near-same-day settlement of payment obligations in Yemen - an essential element in developing a modernized national payment system.

ERLP submitted a White Paper to the CBY on the establishment of a National Payments Council, which is expected to be approved next quarter. The Council is designed to facilitate inter-agency stakeholder coordination and outreach to advance the reform of the national payments system. The project also finalized plans for a pilot program to use MFS to provide government salary payments. The pilot will prioritize the initiative as it will be considered as part of a larger wage reform bill planned by the ROYG later this year.

ERLP worked with CBY on the preparation of a comprehensive economic policy note assessing the effects of the COVID-19 pandemic on the Yemeni economy. It examines the impact on the financial market in terms of its activities, operations, and overall performance. It also looks at the monetary and fiscal policy decisions that the ROYG took to address the consequences of the crisis with the full support of and collaboration with ERLP.

To address identified deficiencies in Yemen's *Anti-money Laundering/Counter-Terrorist Financing* (AML/CFT) framework, ERLP cooperates closely with CBY Banking Supervision Department (BSD) and the Financial Intelligence Unit (FIU) on achieving critical regulatory and institutional reforms needed to strengthen AML/CTF financial reporting and compliance processes. Together with key stakeholders, the project is implementing fundamental organizational, training, and operational recommendations to jumpstart the process of transforming the BSD and the FIU into effective core AML/CFT compliance monitoring and enforcement institutions. With ERLP support last quarter, the BSD and FIU approved a Memorandum of Understanding governing their cooperation on AML/CFT matters, which clarifies the roles of each agency to maximize synergies in their efforts to combat money laundering and terrorist financing.

During Q2, ERLP was, in this regard, requested by the CBY to draft amendments under consideration to the AMF/CTF regulations, which the CBY will submit to Yemen's National Committee on AML/CFT. This is a significant step forward, as these amendments are designed to help bring Yemen into substantive conformity with MENA/FATF (the Middle East and North Africa Financial Action Task Force) standards. Prior to the enactment of the amendment later this year, ERLP assisted the CBY in developing and issuing official circulars, one combatting cybercrime and the other human trafficking and sexual harassment, exploitation, and abuse. The circulars provide FATF-compliant directives that banks are required to follow and will have a rapid ameliorative impact on critical deficiencies in the AML/CFT regime.

In the critical area of *Bank Supervision and Risk Management*, ERLP is focused on improving the safety and soundness of the financial regulatory framework and monitoring/compliance system. The importance of rapid progress in this area is further underscored by the impact of the COVID-19 crisis on financial stability and liquidity conditions across the financial system. This effort also includes a targeted focus on improving the governance framework for IT risk management in the banking and finance sphere and supporting a broader effort to enhance the CBY's overall capacity to measure and control risks across major functional areas of CBY activity.

During Q2, substantial progress was made on establishing the Bank Supervision Department's BSD's role in enhancing the safety and soundness of the financial regulatory framework and monitoring/compliance system. CAMELS-compliant off-site banking supervision and on-site inspection manuals developed by ERLP were approved for use by the CBY and will be put into operation in Q3 during pilot inspections. The release of the manuals was accompanied by intensive training on supervisory oversight techniques for BSD staff compliant with best-practice standards.

ERLP has, in addition, been working intensively toward the establishment of a state-of-the-art risk management framework within the CBY. ERLP also drafted comprehensive guidelines for bank crisis management and risk parameter analysis, risk-management regulatory and procedural guidelines, and IT-related regulatory guidelines/procedures. The project submitted an action plan for establishing a Risk Management Department and a Risk Management Committee in CBY, currently pending approval.

During the quarter, CBY senior management provided renewed expressions of commitment for cooperation across key technical engagement areas; and ERLP deployed multiple expatriate experts to the CBY for the first time since the onset of the pandemic. This was greatly appreciated by CBY management and further built collaborative institutional momentum for reform across a range of key with CBY engagement areas.

FISCAL POLICY DEVELOPMENT AND IMPLEMENTATION

ERLP's fiscal policy reform strategy incorporates a strong focus on enhancing the MOF's institutional capacity through enhanced revenue forecasting and tax policy & administration, budget planning/execution, and debt management support**.** ERLP is in this regard strengthening the ROYG's revenue estimation capacity and its ability to develop options for strategic revenue policy reform, incorporating in-depth knowledge of best-practice experience in post-conflict settings. This includes a focused analytical review and effort with MOF and other relevant government institutions to develop core elements of a sound, better practice compliant revenue policy framework.

During the reporting period, in consultation with the MOF, the Ministry of Planning and International Cooperation (MOPIC), the Ministry of Health (MOH), and the Ministry of Education (MOE) ERLP finalized detailed CY 2021 budget projections, which were presented to MOF senior staff during face-to-face meetings conducted in Cairo in early April.

ERLP experts completed a further diagnostic of the tax policy framework in Yemen during Q-2. The project focused on evaluating Yemen's overall revenue policy structure, identifying key gaps in the existing regime in both the oil and non-oil revenue policy areas, and examining related reform priorities.

In this regard, ERLP developed an initial game plan to transition from the existing GST system to a full-fledged VAT structure; and conducted a detailed review of the natural resources extraction-based revenue regime (and developing related targeted policy adjustment recommendations from a revenue mobilization and fiscal transparency perspective).

Under the *Tax Administration* subcomponent, ERLP developed a detailed set of recommendations with targeted regulatory reform measures designed to improve the basic functional efficiency and transparency features of the tax administration system in Yemen. These recommendations are primarily focused on the re-design of the Tax Administration Authority structure along functional lines. This, in turn, was based on a careful review of the existing organizational structure of the Tax Authority and a detailed related assessment of best practice standards internationally and from the MENA region.

ERLP *Budget Planning* experts developed a core set of regulatory/operational guidelines for establishing a better-practice-compliant budgetary policy and procedural framework, which will be used to prepare the CY2022 national budget. In addition, the project drafted an IMF Government Finance Statistics (GFS)-compliant budget coding manual and assessed the budget expenditures for activities initiated by the government in response to COVID-19,

In the *Budget Execution* area, the project focused intensively on initiating operations of the Joint Committee for the Management of the Treasury (JCMT), which is a core and fundamental target in the Budget Execution Action Plan the project developed in Q1. ERLP presented to the CBY the technical requirements for linking the current central bank treasury operations to the General Administration for the Management of the Public Account (GAMPA) at the MOF. In addition, initial regulatory/operational guidelines to improve budgetary allotment, commitment control, and payment authorization processes in Yemen were also developed.

ERLP *Debt Management* experts developed a comprehensive structure for the Joint-Committee on Debt Management, which was designed and initiated by ERLP during the previous quarter. The structure was jointly approved by MOF, MOPIC, and CBY senior management. The project also resumed discussions with UNCTAD on reactivating DMFAS and expeditiously assessed the possibility of acquiring an alternative (somewhat lower-priced) debt management database (Crown Agents system) as well.

TRADE FACILITATION POLICY DEVELOPMENT AND IMPLEMENTATION

ERLP is focused on facilitating trade reform and significantly improving sea and land transport and related logistical operations by advancing reforms in line with international standards, such as the World Trade Organization Trade Facilitation Agreement (WTO TFA). Before joining the global trading environment, Yemen will need to introduce modern trade facilitation measures, digitize trading procedures, reduce the number of documents required for import/export and reduce non-tariff barriers to trade. These core TF-targeted actions are fundamentally needed in order to (i) facilitate the flow of essential goods into Yemen, particularly humanitarian aid, food products, and critical medical supplies for countering COVID-19; (ii) enhance the competitiveness of Yemeni producers, particularly SMEs; and (iii) promote Yemeni exports.

During the quarter, with strong ERLP support, the Ministry of Industry and Trade formally established the National Trade Facilitation Committee (NTFC), a breakthrough step forward towards effective implementation of critical trade facilitation reforms in line with WTO. Also, in Q2, the Yemen Customs

Authority established a Post Clearance Audit unit, which will be headed by a female Customs Officer trained with USAID support by ERLP.

Other major trade facilitation areas in which ERLP made significant progress during Q-1 included the following: (i) expanding the Authorized Economic Operator (AEO) Program; (ii) further developing risk management, post-clearance audit, and valuation capabilities, (iii) facilitating further cross-border cooperation, (iv) developing the capabilities and capacity of Customs Training Center, and (v) facilitating exports to target markets in cooperation with the Component II Market Linkages team.

COMPONENT 2: IMPROVED MICROECONOMIC CONDITIONS

SUPPORT TO SMALL AND MEDIUM ENTERPRISES (SMES)

ERLP support under Component II is focused centrifugally on sustainably enhancing the competitiveness of the SME sector and expanding employment opportunities. It fundamentally follows Pragma's successful buyer-led model to boost the competitiveness and business performance of high-potential small/medium-sized businesses; in a manner that drives employment growth, raises incomes, and stimulates greater private-sector self-reliance. This approach has been appropriately adapted to the fragile conflict-prone institutional conditions found in Yemen. The project works directly with SMEs identified as having significant growth potential. It then provides targeted technical assistance to enhance their management, operations, administration, and/or marketing capacity, so they can expeditiously and sustainably expand output, increase revenue and create new jobs.

During Q2, ERLP *Workforce Development* experts worked intensively to upskill recent graduates and other job seekers in key skill-gap areas, emphasizing expanding opportunities for traditionally disadvantaged women and youth segments of the workforce. In this regard, ERLP began a groundbreaking intervention in which three new market-relevant vocational-education curricula are being developed, rolled out, and transformed into official degree programs at a prominent vocational training college in Hadramout.

The *Access to Finance (A2F)* sub-component focused during the quarter on innovative approaches to help address the endemic difficulties faced by SMEs in securing the financing needed to achieve sustainable growth. Key constraints that are being addressed through outreach efforts with progressive commercial banking and micro-lending institutions include the lack of adequate credit products, inadequate risk analysis methods and assessment/mitigation techniques, weak credit management practices, excessive collateral requirements, and the lack of focus on the SME sector as a viable target market.

ERLP A2F advisors provided targeted technical and training assistance during this quarter to develop, test, and roll out cutting-edge lending and risk management practices to a network of core partner institutions. The program focused on demonstrating effectively to partner commercial finance institutions – through institutional outreach/dialogue and provision of targeted technical analysis and capacity-building services - that lending to high-potential SMEs, including women-owned and youth-oriented businesses, can, in fact, be a highly profitable business proposition.

During this quarter, ERLP supported additional firm-level competitiveness enhancement engagements in the Education, Textile & Garment, Healthcare, Light-Manufacturing, Fisheries, and ICT, sectors, generating 446 new full-time jobs. Incremental sales for SME partner-enterprises exceeded US$16 million. Eleven Workforce Development events matched 314 job seekers with new jobs. The SME loans from ERLP Partner financial institutions being processed this quarter are projected to exceed US$2.1 Million.

SUSTAINABLE LIVELIHOODS

*Agriculture and Agribusiness***.** More than half of Yemen's rural workforce is employed in agriculture, nearly all as small-scale farmers. The sector is labor-intensive and largely underdeveloped, characterized by low productivity levels and outdated farming practices. The situation results in muted output and productivity levels that increase rural poverty. Inefficiencies often result from water scarcity and lack of access to improved technologies; inadequate cultivation and harvesting techniques; poor storage, marketing, and packaging practices; lack of credit access; and/or inadequate integration into supply chains.

To improve rural livelihoods, ERLP has focused on the introduction of market-led farming practices and new technologies to its partner households operating in the coffee, honey, horticultural crops, and livestock value chains. Targeted interventions are designed to deliver positive impacts on its partner households in terms of increased productivity, quality, and incomes, as well as address specific end-buyer needs and relieve key constraints impeding growth. The project has incorporated a major focus on improving market access and expanding the linkages between Yemeni producers and a range of international buyers. This assistance is also being supported by ERLP's A2F component, which works in coordination with ERLP/Sustainable Livelihoods specialists to increase producer access to finance.

During the quarter, ERLP delivered 21 agriculture technical training activities benefiting 688 farmers, and partners signed 124 new sales agreements valued at $1.7 million. The skills training significantly enhanced farmer productivity, reduced postharvest losses, and added value to farm products by significantly improving product quality and marketing.

Fisheries. Small-scale fisheries are central to the livelihoods of millions in Yemen's coastal areas and play a critical food security and employment generation role in these regions. Fisheries represent Yemen's second-largest export commodity after oil, significantly contributing to foreign exchange earnings. However, the international marketplace for fisheries exports is highly competitive, with rapid demand shifts related to fish quality and safety issues.

Despite the sector's significant economic potential, numerous challenges have traditionally constrained its further growth. ERLP technical assistance and training support has in this regard been strategically focused on strengthening stakeholder technical and quality management capacity; helping promote stronger fishing sector compliance with basic international quality and safety standards, and enhancing international market linkages in a manner that can directly increase the export of value-added seafood products, and create related employment expansion opportunities.

During the quarter, ERLP Sustainable Livelihoods Fisheries interventions resulted in 80 fisherfolk receiving training; 106 previously unskilled coastal women received better employment as a result of USAID-funded capacity building, and five companies in the fisheries value chain benefited from targeted technical assistance.

COMPONENT 1: IMPROVED MACROECONOMIC FUNCTIONS OF KEY INSTITUTIONS

1.1 IMPROVED MONETARY POLICY DEVELOPMENT AND IMPLEMENTATION

ERLP is providing targeted technical and training support designed to promote critical macro-financial policy, regulatory and institutional reform in the following core areas:

1. Monetary Management Reform
2. Foreign Exchange and Reserve Management
3. Payment Systems Reform
4. Collection and Reporting of Monetary Statistics
5. COVID-19 Response Options
6. Banking Supervision and Risk Management.
7. Anti-Money Laundering and Counter-terrorism Financing

The Monetary Policy and Management Reform sub-component has focused on implementing a sound basic monetary control framework to promote further improvement in core macro-stability conditions, and gradually restore trust in the national currency.. The project is also assisting the CBY Research Department to compile and issue quarterly bulletins illustrating key macro-financial statistics. This will serve as a core reference in an effective and well-informed monetary policy decision-making process. The first *Quarterly Bulletin – Economic and Monetary Developments* was published in December 2020, and the second issue on March 31, 2021.

In Foreign Reserve & Exchange Management, ERLP supports the full functionalization of a modern Foreign Reserve Management (FRM) Department in the CBY. This includes assisting the CBY FRM team in releasing frozen CBY deposits in foreign banks, developing a comprehensive regulatory and operational framework for FX auctioning mechanisms based on market-clearing practices, and systematically tracking and managing FX investment allocation processes. It also includes monitoring and executing FX payment processes (including foreign debt repayments under a reactivated DMFAS debt tracking/payment system), adopting best practice guidelines for FX reserves portfolio management, and restructuring the FRM Department.

The Payments and Settlement Systems subcomponent focuses on further enhancing the organizational capacity of the CBY Payments System Department (PSD). This entails the robust elaboration and implementation of job description and workflow requirements, and related staffing and training activities. It will also involve establishing the related IT infrastructure required for the efficient and time-effective management of payment system informational flows. In addition, the project has made substantial progress towards establishing a more efficient electronic interbank payments and check-clearance system. ERLP is also building a sound regulatory and operational framework for Mobile Financial Services (MFS) operations in Yemen and advocating the piloting of an MFS-based public-sector salary payment program.

To address identified deficiencies in Yemen's Anti-Money Laundering/Counter-Terrorist Financing (AML/CFT) framework, ERLP cooperates closely with CBY Banking Supervision Department (BSD) and the Financial Intelligence Unit (FIU) on achieving the required regulatory and institutional reforms needed. Together with key stakeholders, the project is implementing fundamental organizational, training, and operational recommendations to jumpstart the process of transforming the BSD and the FIU into Yemen's core AML/CFT compliance monitoring and enforcement institutions.

In the critical area of Bank Supervision and Risk Management, ERLP is focused on improving the safety and soundness of the financial regulatory framework and monitoring/compliance system. The importance of rapid progress in this area is further underscored by the impact of the COVID-19 crisis on financial stability and liquidity conditions across the financial system. The project is conducting a comprehensive reorganization and upgraded staffing & training program with the BSD.

In this regard substantial progress has been made on the robust implementation of CAMELS on-site examination and off-site financial reporting/performance requirements, designed to ensure sound financial performance on the part of commercial finance institutions. This effort also includes a targeted focus on improving the governance framework for IT risk management in the banking & finance sphere and supporting a broader effort to enhance CBY's overall capacity to measure and control risks across major functional areas of CBY activity.

1.1.1 MONETARY MANAGEMENT REFORM

BACKGROUND

Establishing robust and effective macroeconomic management within the current unstable environment in Yemen requires prompt and well-coordinated action by the CBY to control monetary growth, and stabilize price and exchange rate expectations. ERLP has been providing targeted technical support to the CBY that focuses on restoring basic macro-financial stability. Appropriately prioritized and time-framed reform actions are laying the groundwork for a stable and well-regulated macroeconomic and financial system, and should help rebuild public confidence in the stability and legitimacy of financial markets in Yemen.

QUARTERLY WORK ACTIVITIES AND DELIVERABLES

ERLP continued to take critical next steps to improve monetary control and better manage inflation. Key focus areas moving forward include (i) strengthening analytical capacities of the CBY to conduct an appropriate monetary policy based on realistic quantitative targets and (ii) developing and phasing in more flexible and market-based monetary policy instruments, such as operational tools for liquidity management. To this end, ERLP is already articulating the transition toward an effective conventional monetary management policy framework.

In this regard, ERLP experts conducted a final assessment of implementation of the annual CY2020 monetary plan and the related cash currency management and circulation program. Moreover intensive efforts were directed toward designing and implementing a sound monetary plan for CY2021 and finalizing the related cash currency management and circulation program as a core document to guide the CBY in performing effective monetary control. The project also developed initial recommendations and a related time-framed action plan to establish an appropriate and realistic regulatory framework and guidelines for implementing basic indirect instruments of monetary policy. In addition, ERLP provided targeted training to CBY staff in monetary programming, money demand estimation, and monetary policy formulation.

Monetary management activities and deliverables for Q2 are summarized in the following table.

Table 1: Q2 Monetary Management Activities and Deliverables

<table>
<tr><th>Activity</th><th>Deliverables</th></tr>
<tr><td>Finalize systemic review of the implementation of the annual CY2020 monetary plan</td><td rowspan="6">1. A final report on the implementation of the annual CY2020 monetary plan submitted.
2. A robust annual monetary plan for 2021 finalized.
3. A sound, related cash currency management/circulation program for CY2021 finalized.
4. A report including a set of actionable recommendations regarding the indirect instruments of monetary control. This report will include a related time-framed action plan to establish an appropriate/realistic regulatory framework and guidelines.
5. At least 6 targeted training sessions to CBY staff provided in monetary programming, money demand estimation, and monetary policy formulation.</td></tr>
<tr><td>Coordinate on an ongoing basis with ERLP macro-fiscal team on monetary emission implications of deficit financing needs associated with CY2020 budget deficit and with proposed CY2021 budget proposal</td></tr>
<tr><td>Prepare/revise the annual monetary plan for 2021</td></tr>
<tr><td>Provide sound macro-analytical guidance to CBY on the preparation of a sound, related cash currency management/circulation program for CY2021</td></tr>
<tr><td>Design initial recommendations and a related time-framed action plan for putting in place an appropriate/realistic regulatory framework and guidelines for the implementation of basic indirect instruments of monetary control</td></tr>
<tr><td>Provide targeted training to CBY staff in monetary programming, money demand estimation, and monetary policy formulation</td></tr>
</table>

I. FINAL REPORT ON THE IMPLEMENTATION OF THE ANNUAL CY2020 MONETARY PLAN

The monetary plan designed for the CBY in CY2020 uses targets and indicators to assist the Central Bank in conducting policy to achieve its macroeconomic goals.

Reserve Money

The assessment of the monetary program indicates that the CBY controlled the growth of base money (the sum of currency issued, and bank reserves held with the CBY) in CY2020, limiting its growth to 13.3 percent, well below the target of 20.6 percent. Currency issued rose by 15.1 percent and bank reserves by 4.4 percent.

This growth is mainly attributable to the net effect of the increase in credit to the government in the form of direct financing of the budget deficit, together with the decrease of foreign assets associated with the disbursement of the remaining balance of the Saudi deposit.

Net credit to the government increased by 18.3 percent (against a target of 22.8 percent), and foreign assets declined by 38.3 percent (against a target of 45.7 percent), largely due to the drawdown of the Saudi deposit.

Broad Money

To carry out the assessment in relation to broad money estimation, ERLP used the money multiplier of 2019 and the level of base money at the end of December 2020 to estimate the volume of broad money (M2) at the end of December 2020:

$$M2\ (2020) = \text{Base money}\ (2020) * \text{Money multiplier}$$

$$M2\ (2020) = 3{,}948.2 * 1.74 = 6{,}869.8 \text{ billion Rials}$$

Broad money is estimated to have grown by 15.0 percent in CY2020, below the target of 22.2 percent considered in the annual monetary plan. At the same time, realizing the medium-term inflation target of 15 percent will likely require the mobilization of external resources and expanding access to alternative non-inflationary sources of financing by the CBY.

(See "*Macro – Annex 01 - Final Report on the Implementation of the Annual CY2020 Monetary Plan*")

II. ROBUST ANNUAL MONETARY PLAN FOR 2021 FINALIZED

A sound programming framework starts with a forecast for GDP, an inflation objective, and estimates of money velocity and the money multiplier. It then forecasts the volume of broad and base money needed to achieve the inflation objective. Additional information about government finance and the balance of payments is used to make quarterly forecasts, which become policy targets.

The relationship between inflation and monetary aggregates is especially significant in Yemen. Given the stability of money demand, monetary policy formulation in Yemen can best be conducted by applying a monetary aggregate targeting framework. Within this framework, broad money is used as the intermediate target. Base money is selected as the operational target, which the CB influences through monetary policy instruments. While not a monetary policy-related objective in and of itself, more flexible management of the exchange rate regime will help smoothen money demand and facilitate effective implementation of stable monetary management policies.

Assumptions

Five assumptions underlie the design of the 2021 monetary plan:

- Real GDP will grow by 0.5%.
- The target inflation rate will be 15–20%
- The fiscal deficit will be about 750–800 billion rials (about 4.2% of GDP).
- Balance of payments support will not be significant (the Saudi deposit will not be renewed).
- The interest rate policy will remain unchanged.

Main Features and Quantitative Targets

Based on these core assumptions, the CY2021 monetary plan projects broad and base money growth of 18.3 percent and 19.1 percent, respectively (see table 2). Monetary emission is projected to grow by 22.7 percent. These values would be consistent with annual inflation in the 15–20 percent range. The table below summarizes the 2021 annual monetary plan's main indicators in terms of absolute values (outstanding) and annual growth rates.

Table 2: Main Features of the 2021's Annual Monetary Plan

Quantitative Target	2020 (Actual)	2021 (Projected)	Growth rate (Targeted)
Broad Money (M2)	6,960.9	8,232.0	18.3%
Base Money	3,948.2	4,704.0	19.1%
Currency Issued	3,327.5	4,083.3	22.7%

(Rial billion unless otherwise indicated)

III. SOUND RELATED CASH CURRENCY MANAGEMENT AND CIRCULATION PROGRAM FOR CY2021, FINALIZED

Yemen is projected to need 755.8 billion rials of additional monetary circulation resources in 2021. It can be created by currency deposits from the sale of foreign exchange, issuances of government bonds, increases in public revenue collection, and/or (as a last resort) the printing of new banknotes.

In relation to the implementation of the monetary program and based on liquidity forecasts, the Central Bank could use foreign exchange auctions to withdraw liquidity against the sale of foreign currencies (assuming adequate foreign reserve availability). Likewise, the issuance of government bonds would have an equivalent impact result (liquidity withdrawal); while also providing funds to finance the government's liquidity needs in a non-inflationary manner (although the liquidity and attractiveness of these securities need to be enhanced). If, however, the banking system is short of liquidity (for instance, because of the effects of the pandemic), the CBY could use discount window financing, which ERLP will work to help introduce, to provide an additional liquidity control channel (i.e., the adoption of indirect and/or market-based liquidity management instruments).

IV. ACTIONABLE RECOMMENDATIONS REGARDING THE INDIRECT INSTRUMENTS OF MONETARY CONTROL

The CBY lacks a conventional framework for implementing monetary policy, and it has very limited operational capacity. Because of persistent government cash flow management weaknesses, the Central Bank faces significant challenges in accurately forecasting liquidity. This makes it more difficult to manage liquidity conditions and conduct appropriate open-market operations (OMOs). The situation is compounded by the absence of standing lending and deposit facilities at the Central Bank, and the lack of an effective reserve requirement system with an adequate reserve maintenance period. Moreover, the CBY lacks a policy rate that could signal its monetary policy stance and influence commercial bank pricing of loans.

To achieve its primary objective of price stability, the CBY should establish a combination of effective monetary policy instruments over time. This will entail the gradual design of a comprehensive toolkit that comprises open market operations and standing facilities and a basic reserve requirement system. Consistent with this overarching objective, the following actionable recommendations have been presented to the CBY during Q2:

Open market operations

There is a significant need to introduce OMOs through well-designed conventional and Shariah-compliant monetary policy tools to help absorb or inject liquidity into the banking system. OMOs should include the purchase and sale of securities, as well as interventions in the exchange market. In this regard, the CBY intervention process in FX markets should be reformed by putting in place a fully-fledged auction system to enhance transparency and credibility and better reflect market forces. This will require a software network such as Reuters or Bloomberg, which links all participants under the control of the CBY. This will be done in close coordination with the FX management advisor during the next quarter (as discussed as well in the FX section of this report).

Guidelines related to the introduction of OMOs will be developed during the third and fourth quarters of 2021. This will include outlining detailed procedures and operations, specifying criteria for counterparty eligibility, and designing an appropriate collateral framework. Eligible counterparties will be required to comply with these guidelines.

Standing facilities

Putting standing facilities in place is essential for Yemen. In addition to allowing eligible counterparts to access Central Bank money through an overnight lending facility (i.e., discount window) and investing their liquidity surplus, standing facilities would support the eventual emergence of an interbank market in Yemen. The related regulatory framework for this important liquidity management mechanism will be developed over the next two quarters as well.

Reserve requirement system

In the absence of widespread application of conventional policy instruments such as OMOs and discount windows, reactivation of the CBY's legal reserve requirements is key to the efficient conduct of monetary policy. An increase in the reserve requirements can help restrict bank lending and control the growth of monetary aggregates, thus easing inflationary pressures in the economy. Currently, no interest is paid on banks' required reserves held at the central bank. Different reserve ratios are applied to local and foreign currency deposits.

Targeted amendments to the existing regulatory framework would allow the CBY to adopt a more flexible and effective reserve requirement system; based on averaging reserve maintenance requirements over a longer period of time. This, in turn, would encourage the development of liquidity exchange between banks in the interbank market. These adjustments to the regulatory framework will be developed and proposed to the CBY during the third and fourth quarters of 2021. More broadly, implementing these measures will require a firm commitment by CBY to measure and enforce basic reserve requirements, which the ERLP team will continue to emphasize to CBY technical officials and management.

(See "*Macro – Annex 02 - Work Plan for Developing Regulatory Framework and Guidelines for Adoption of Indirect Instruments of Monetary Control by CBY*")

IV. TARGETED TRAINING TO CBY STAFF

During the reporting period, ERLP continued a series of training workshops for CBY staff working in the Monetary Research and Statistics Department. The department's main goal is to provide a sound conceptual and empirical basis for practical policymaking purposes. Its specific primary objectives are to support compilation and analysis of economic and financial statistics, facilitating enhanced understanding of the economy functions. It provides practical analytical tools that can help the CBY achieve its goal of designing and implementing an effective monetary policy framework.

The targeted training sessions which have been provided have been conducted remotely via Zoom. They covered a broad range of relevant topics. These included the compilation and analysis of monetary statistics, monetary programming framework design and implementation, and analysis of the interlinkages between the monetary and other economic sectors (e.g., fiscal, external, and real). In addition, special attention was paid to key monetary policy topics such as money demand estimation, liquidity forecasting, price developments, and exchange rate pass-through. Materials prepared for the training included PowerPoint presentations and Excel spreadsheets for case studies.

The following is a recap of the core training sessions provided to the CBY Research and Statistics Department.

Table 3: Recap of Core Training Sessions for CBY Research and Statistics Department

Dates	Topics/Issues
January 21, 2021	Dedicated to basic economic concepts used in policy design and analysis, including national accounts, potential GDP, inflation, monetary aggregates, and fiscal and external sector key indicators and their interlinkages. Related PowerPoint (lecture) and Excel files (case studies) were shared with the Research and Statistics Department team.
January 28, 2021	An in-depth case study on methods used to calculate key economic growth indicators (real and nominal) and inflation (GDP deflator vs. CPI index), tailored to Yemen-specific data. The advisor also prepared and shared with CBY staff a PowerPoint presentation and Excel spreadsheets related to money demand estimation using the quantity theory of money approach, which will also be the subject of future follow-up applied training.
February 4, 2021	Money demand estimation using the quantity theory of money approach.
February 10, 2021	Presentation and discussion of the methodology of monetary programming and the assumptions required to design an effective monetary plan for CY2021. This included: Step 1- setting objectives for real GDP growth, the inflation rate, the fiscal deficit, and the balance of payments; Step 2 - projecting money demand using the estimated velocity of money and the target value of nominal GDP; and Step 3 - deriving base money using the money multiplier relationship.
February 18, 2021	This session focused on specific macro data. Coaching and hands-on learning helped the CBY begin designing the monetary plan for CY2021 using the Fisher equation and associated concepts such as the velocity of money, the money multiplication process, and economic absorptive capacity.
February 25, 2021	This session was dedicated to designing the preliminary draft of the annual monetary plan for 2021. The assumptions underlying this plan and the results obtained for the quantitative monetary targets were thoroughly discussed and agreed upon with the Research Team. These targets may be further refined and/or revised to consider future economic developments, particularly pandemic containment measures, the further evolution of oil prices, and the potential impact of these developments on Yemen.

CONCLUSION AND NEXT STEPS

ERLP will continue strengthening the analytical and operational framework for CBY monetary policy formulation and implementation, consistent with the core mission of permanently restoring macro-financial stability via the development of a sound monetary programming framework. The project will regularly monitor the implementation of the 2021 monetary plan and help establish a basic, early-stage regulatory framework for adopting indirect instruments and conducting open-market operations.

ERLP will also draft guidelines for the conduct of OMOs based on a comprehensive toolkit of indirect instruments and determine transparent, efficient, and uniform eligibility criteria for counterparty access to monetary policy operations. This process will be oriented towards promoting the participation of a broad range of commercial banks and other financial institutions. ERLP will also continue building institutional capacity by providing targeted training to relevant CBY staff (primarily in the Research and Statistics Department) on key monetary policy formulation and implementation topics.

1.1.2 FOREIGN RESERVE & EXCHANGE MANAGEMENT

BACKGROUND

In the foreign exchange and reserve management area (FXRM), ERLP support covers the full functionalization of the modern foreign reserve management (FRM) department at CBY. This includes assisting the CBY FRM team in releasing frozen deposits of the CBY in foreign banks, developing a comprehensive regulatory and operational framework for FX auctioning mechanisms based on market clearing practices, systematically tracking and managing FX investment allocation processes. It also includes monitoring/executing FX payment processes (including foreign debt repayments under a reactivated DMFAS debt tracking/payment system), adopting best practice guidelines for FX reserves portfolio management, and restructuring the FX reserves management department to enable the aforementioned targets. The program, therefore, is fully aligned with the holistic vision of the CBY team of a modernized FX Reserve Management function.

The CBY has been engaged in managing a precarious FX situation since the start of the political crisis. Typically, the sources of FX flows in Yemen are based on gross oil exports (the oil trade balance is on the whole negative and results in a significant outflow of FX from Yemen on a net basis, though). Some limited exports of other goods, including fisheries, coffee and honey, and remittance flows, are the primary source of foreign currency in the country. Official estimates of FX remittance flows amount to approx. 16% of GDP or up to USD 4.0 billion.

It is worth noting that the banking system in Yemen has a very low level of penetration (an estimated 5-10% only of the population have access to bank accounts), while an estimated two-thirds of FX market activity happens outside the banking sector. FX trading outside the banking sector happens via exchange houses and small Hawala's of which there are more than 400 listed entities in Yemen, and they have a much better geographical penetration compared to banks.

The demand-supply gap, with demand for FX much higher than supply, coupled with this FX market microstructure mentioned above, is the basis of the existing divergence between official rates and parallel market rates, which reached 40% at certain points in time between 2018 and 2020.

QUARTERLY WORK ACTIVITIES AND DELIVERABLES

Over the course of ERLP Q2 (January to March 2021), ERLP experts focused on achieving six main targets: (i) Easing access to major frozen FX accounts, (ii) Developing foreign reserves investment strategy and policy guidelines, (iii) Conducting FX allocation/placement simulation and developing the related regulatory guidelines, (iv) Providing training sessions to CBY staff on FX auction applications, (v) Updating the systemic foreign reserves allocations and status reporting framework, (vi) Achieving significant progress towards the adoption of FX management best practice guidelines. In the following section, these deliverables are discussed in detail.

Table 4: Q2 FXRM Deliverables

<table>
<tr><th>Activity</th><th>Deliverables</th></tr>
<tr><td>Continue/expand information-provision and follow-up outreach and documentation actions to regain access to additional/all frozen FX accounts.</td><td rowspan="7">1. BoE and BIS reserve accounts unfrozen (on a best-efforts basis).
2. Report on the status of the initial implementation of better practice compliant foreign reserve investment strategy by CBY.
3. Presentation/approval of regulatory/procedural guidelines that facilitate efficient and transparent rules-based FX allocation/placement activities by the CBY (on a best-efforts basis).
4. Presentation/approval of better practice compliant Business Continuity and Disaster Recovery Plan for foreign reserve management activities/systems. (On a best-efforts basis)
5. Report on further detailed electronic data warehouse applications adopted and publish required financial data on the CBY website.
6. Report describing job descriptions and staffing and provide at least six related structured training sessions on FX management and tracking policies/practices with department staff.
7. Support the information collation and related technical planning steps needed to facilitate reactivation of the DMFAS (or similar) external debt management system (in coordination with the fiscal advisory team)</td></tr>
<tr><td>Initiate implementation of better practice compliant foreign reserve investment strategy by CBY.</td></tr>
<tr><td>Develop, in collaboration with CBY, detailed regulatory/procedural guidelines that facilitate efficient and transparent rules-based FX allocation/placement activities by the CBY.</td></tr>
<tr><td>Facilitate review/dissemination of better practice compliant Business Continuity and Disaster Recovery Plan for foreign reserve management activities/systems.</td></tr>
<tr><td>Work with the IT team and the reserve management department on ensuring transparency through further building out electronic data warehouse applications and publishing required financial data on the CBY website.</td></tr>
<tr><td>Support finalization of job descriptions and staffing and provide additional structured training sessions on FX management and tracking policies/practices with department staff.</td></tr>
<tr><td>Support the information collation and related technical planning steps needed to facilitate reactivation of the DMFAS external debt management system (in coordination with the fiscal advisory team)</td></tr>
</table>

1. EASING ACCESS TO MAJOR FROZEN FX ACCOUNTS IN FOREIGN BANKS

CBY liquid reserves currently stand at about $300 million, representing around 1/3rd of a month of import financing requirements. If access were regained to all currently frozen accounts (about $450 million), that would essentially raise total liquid reserves to a little less than one month of basic import financing needs. Overall, FX reserves have fallen by around 90% from the highpoint of $2.2 billion in early 2019 (largely reflecting the rundown of KSA LOC funds to finance basic imports).

About $400 Million of the $450 million in frozen reserves (about 86%) is held in two major accounts – Bank of England and the Bank of international settlements. Table 5 presents the large active and frozen deposit accounts which exceed $5 million, and the figures are represented in $ millions.

"*Macro – Annex 03 - Detailed Analysis of Major Accounts (Active & Frozen) —updated through March 2021*" provides a detailed breakdown of all accounts, including very small exposures in their original currencies and the change in all accounts (active and frozen) from June 2018 to March 31, 2021.

A minimal rule of thumb for macro-stability purposes is for a central bank to maintain precautionary reserves of at least 3-4 months of annual import financing needs. This underscores how urgent is the need for releasing the frozen funds.

Table 5: Major and Active Frozen Accounts Breakdown ($ million equivalent)

Counterpart	Currency	USD Equivalent (Millions)	Status
Active Accounts			
Federal Reserve Bank of New York (FBRNY)	Gold	76	**Active**
National Commercial Bank - NCB (Riyadh - KSA)	SAR	148	**Active**
National Commercial Bank - NCB (Jeddah - KSA)*	USD	148	**Active**
National Commercial Bank - NCB (Jeddah - KSA)	SAR	15	**Active**
Sub-Total Active		**387**	
Frozen Accounts			
Bank for International Settlements (BIS)	USD	109	**Frozen**
	EUR	180	**Frozen**
Sub-Total BIS		**289**	**Frozen**
Bank of England	GBP	**115**	**Frozen**
Bank of China Hong Kong	USD	43	
	EUR	2	
	CNY	11	
Sub-Total Bank of China Hong Kong		**57**	**Frozen**
Sub-Total All Frozen Accounts		**461**	
Total Material Counterpart Exposures		**847**	

Source: CBY, exchange rates as of 31st March 2021

Notes:* *This represents the Saudi LOC which* has *been topped up modestly after being almost exhausted as of the end of December 2020. c. USD70 million of the Saudi LOC was used to cover LOCs for Yemeni banks with the Bank of Beirut as a counterpart. These funds are currently being claimed back from the Bank of Beirut with no expected recovery date, and CBY indicated they might need assistance in this respect.*

During Q2, ERLP experts have been working with CBY to move forward to finalize/transmit the required documentation and are currently directly engaging with CBY legal counsel in the UK, reviewing documentation in conjunction with them, and drafting responses jointly to BIS and BoE counterparts. Some of the documentation includes:

- Republican Decision on appointment of the new Governor (Completed).
- Republican Decision on appointment of a Deputy Minister of Finance to the BOD.
- The BOD decree (Completed).
- Providing a copy of the authorized signatories.
- Other legal requirements (In progress).

In February and March 2021, ERLP advisors organized a number of consultation meetings with the CBY FX Reserves Management team, set up a working group including CBY key staff from the FX department and ERLP FX advisors, and activated the working group with the legal representative of the CBY in the UK which resulted in significant progress in communication and documentation preparation towards unfreezing BoE and BIS accounts.

II. DEVELOP A FOREIGN RESERVES INVESTMENT & UTILIZATION STRATEGY & POLICY GUIDELINES

As highlighted earlier, the consolidation of foreign reserves in Yemen is direly needed to ensure that Yemen meets its external obligations, including sovereign and commercial debt, and also includes the ability to absorb any unexpected capital movements or economic shocks. The CBY could utilize unfrozen reserves to bolster the extraordinarily thin level of precautionary reserves. These resources, in turn, could be invested in investment tools that enjoy a high degree of liquidity, safety, and good investment grade.

ERLP FX experts over the course of Q2 continued developing the draft foreign reserves investment and utilization strategy, including a comprehensive set of policy guidelines on the efficient use and investment of foreign reserves. The revised policy for Q2 incorporates a harmonization with guidelines shared by the CBY FXRM counterparts, which had been developed under a different context by the WB for the CBY in Sanaa.

According to the strategy and its policy guidelines, foreign reserves must be used in a way that allows CBY to meet its following core objectives:

- Supporting and maintaining confidence in the Rial exchange rate policy;
- Helping Yemen service its external obligations in a timely and orderly manner;
- Providing foreign exchange for operational needs and trade finance;
- Investing FX balances efficiently in a manner that meets critical liquidity, intervention, and precautionary needs;
- Providing a buffer to absorb the balance of payments shocks during times of crisis; and
- Be flexible enough to allow the use of different tools and instruments available within the risk limits.

Within this overall context, foreign reserves are allocated across three core tranches:

1. **The Working Capital Tranche** (operational portfolio) is funded to meet operational, short-term liquidity obligations and potential interventions. This portfolio has a one-month investment horizon and is consequently invested in the most liquid and low-risk instruments. Prior to the beginning of each month, the size of the working capital is determined by estimating the level of liquidity needs for the month, including the scheduled repayment of external government debt and potential interventions in the foreign exchange market. If necessary, the size of the working capital can be adjusted during the month;
2. **The Liquidity Tranche** consists of funds that will replenish the Working Capital tranche (operational portfolio) as and when necessary and which receives excess cash from the Working Capital tranche (operational portfolio). The objective of this portfolio is to meet all contractual and potential drawdowns over the next 12 months. This portfolio is invested in liquid financial instruments, with a capital preservation objective over a one-year horizon; and
3. **The Investment Tranche**, which may have an investment horizon of more than one year and which is managed to enhance the return on foreign reserves and cover longer-term contingent liabilities, consistent with the country's macroeconomic and financial stability. This portfolio is deployed in higher-risk financial instruments in search of higher investment returns, consistent with acceptable risk tolerance parameters.

Additionally, the strategy provides specific policy guidelines for the investment of foreign reserves while taking into account some general criteria for determining the size of investment portfolios, the eligible asset classes, diversification, maximum maturity, and performance and risk benchmarks. However, it is worth noting that the size of the liquidity and investment portfolio needs to be periodically reviewed based on forecasted liquidity needs, the expected medium-term foreign exchange needs of the country, and the assessment of the vulnerability of the balance of payments.

The investment strategy also sets guidelines for assessing return objectives, portfolio segments, currencies, acceptable instruments & counterparts, risk tolerance, risk parameters, benchmarks, performance attribution, and management processes are all defined in the policy guidelines.

It is worth reminding that the rationale behind developing a sound FX reserve investment strategy is to enable the CBY to deliver its dual mandate of monetary stability and safeguarding financial stability. The minimal level of existing reserves should not be a prohibiting factor in developing an investment strategy and policy guidelines in line with best practice and within the bounds of the reality of the situation on the ground in Yemen and challenges faced by the CBY. On the contrary, because reserves are being built from a small base, this provides Yemen's CBY with a unique opportunity to finetune their investment strategy policy and guidelines during a period where they have the capacity to do so.

The full FX investment policy and utilization strategy are attached in "*Macro - Annex 04 - FX Reserves Investment Management Policy Prototype (English)*."

III. DEVELOPING AN FX PLACEMENT/ALLOCATION FRAMEWORK BASED ON AUCTIONING

Following on work done in QI, in Q2, ERLP experts further facilitated efficient and transparent rules-based FX allocation and placement activities by the CBY. In QI, The FX advisory team developed a comprehensive framework for the CBY to regulate market interventions and pursue FX placement/allocation activities. This is an FX auction regulatory framework that provides flexibility for the CBY to intervene as needed to defend the stability of the Yemeni Rial. This regulatory framework is based on country best practices while accommodating the monetary policy specifics in Yemen.

In Q2, the team focused on using advanced technologies, in this case, the Refinitiv platform, which is used by many central banks globally for FX auctioning. The set of eligibility criteria/requirements for banks and money exchange bureaus to participate in auction operations is the same set developed in Q1. The training that the team conducted in Q1 on how to enforce these legal aspects will now be used to upload the same requirements to the Refinitiv system through information sharing and transparency reinforcement. For example, the CBY should publish the eligibility criteria on its website and list them in its periodic reports.

The highlights of the eligibility criteria of auction participation for exchange bureaus are summarized hereafter:

- A minimum of a number of years of experience in market participation and in FX auctions.
- An assessment of the financial assets available for the money changers
- A risk assessment profile
- An assessment of the compliance prerequisites
- A commitment towards a strict financial reporting protocol

- A minimum number of branches available across the different governorates under legislative control
- A minimum requirement for technical/IT compatibility with the auctioning platform on Refinitiv. If either the bank or the exchange house does not have access to the Refinitiv platform, CBY can enter the bids on their behalf.
- A signed approval on the list of violation criteria

This list of criteria is reflected in the legal forms that bidders -whether banks or money change companies- should complete to be eligible to participate in the auction via the Refinitiv platform. For example, the bank/exchange bureau must provide proof of licensing and sign a commitment form with referenced reporting criteria that must be met. It is also mandatory for commercial banks to open separate bank accounts that are hosted by the CBY for settlement purposes. The CBY must be authorized in written to complete any settlement transaction through access to these accounts. The same rules apply; even if the bank or exchange bureau does not have access to the Refinitiv platform, the only difference is that bids will be entered on behalf of that entity by the CBY.

In the case of exchange bureaus, they must arrange for financial coverage/collateral by their representing bank, which acts as guarantor. Settlement of auctions will be pursued between the CBY and the representing bank. Then another settlement transaction will occur between the bank and the money change company to close the cycle.

The actual exchange of funds between the CBY and commercial banks should occur via electronic transfers, not in cash. This is a challenging requirement given that the Yemeni economy is mostly cash-based. However, this, arguably, is a crucial element to ensure transparency and comply with banking supervision best practices.

The settlement of auction transactions will likely occur on a T+2 basis if transfers are made from/to international accounts and/or foreign currency. The settlement of transactions will otherwise occur on a T+1 basis if the money is transferred to/from a domestic account in Yemeni Rial.

Auction Regulations

The auction regulations, which were drafted in Q1, will still be used. They consider the urgent need to move the FX allocation/trading framework in a more transparent and competitive direction, given the highly discretionary and opaque regulatory and operational framework currently in place for FX placement activities through CBY. However, execution is proposed on the Refinitiv platform. Before drafting the draft regulatory decree, the FX advisory team reviewed a wide set of relevant financial laws, including the CBY Law No. (14) 2000, Banks Law No. (38) 1998, Islamic Banks Law No. (21) 1996, as amended by Law No. (16) 2009, Money Changers Republican Decree No. (20)1995, as amended by legislation No. (15) 1996, and Anti-Money Laundry and Combatting Terrorism Law No. (1) for 2010, as amended by Law No. (17) for 2013.

The proposed draft lays out the main requirements for participation in FX auction activities and the eligibility criteria and related instructions. The draft also lays out the auction structure and allocation procedures following two modes: Multiple Price Auction and Fixed Price Auction (modified Dutch Auction), implemented using the Refinitiv platform. The basic guidelines provided ensure the following:

1. CBY interventions will be made through frequent FX auctions, whereby auctioning becomes the ultimate way of intervention by the CBY in the FX market.
2. The CBY determines the auction amount as a proportion of the aggregate daily demand of foreign currency (e.g., 25%).
3. The eligibility criteria for participation of exchange bureaus are defined in the list of instructions attached in Appendix (2). Money changers are only permitted to participate in bids after obtaining their bidding license by the CBY. Money changers need to fulfill their obligations under existing laws and comply with existing licensing and reporting requirements.
4. The CBY will assign a score to each exchange bureau based on their overall compliance with the eligibility criteria. The top ten highly scored companies will be allowed to participate in the bid. While eligible money changers can directly participate in the auction, the settlement of the auction operations must take place through a commercial bank. Eligible money changers need to obtain a covering letter from a licensed commercial bank to cover the auction settlement on their behalf. On the other hand, non-eligible exchange bureaus can only participate in auctions indirectly, through bank representation, based on a signed contractual agreement. In such a case, the bank will be allowed to submit additional bid offers exceeding its regular quota on behalf of the money changers.

The team provided technical recommendations on using the Refinitiv system used in many central banks globally to achieve the desired goals of the currency auction system. Refinitiv also allows the CBY to define, through the system user interface, the intended auction properties, such as frequency, announcements, and the properties of acceptable auction participation forms, including using an Arabic interface. The CBY should define automatic enforcement rules that can be executed by the software system, such as the maximum eligible amounts for participation, the deadline for participation, and the accepted limits for the exchange rates, and so forth.

FX Auction Simulation

FX auction simulation on the demo environment was conducted on the Refinitiv platform in two sessions. The first session with junior FXRM CBY staff and the second session was a demo that included the participation of FXRM senior CBY staff. For both sessions, a simulation using three participating banks was conducted. In Q3, a live simulation is envisaged, collaborating with Refinitiv, including banks and exchange houses. ERLP FX experts and Refinitiv used a single price technique to allow the CBY to sell U.S. dollars. During the simulation in the demo environment, the team described all the steps that would be conducted in a live auction, starting with the CBY announcing the bid in reference to banks and money changers (for those who have the Refinitiv platform and by e-mail or phone for those who do not), assessment of auction results and announcement of final findings was made.

IV. FX AUCTION TRAINING

In collaboration with the Refinitiv team, two training sessions and also demo simulations covering the FX auction applications during ERLP Q2 were conducted. This covers FX auction modules, auction price setting, among others. Refinitiv also extended an invitation to the CBY team for a free two-day workshop in Cairo, Egypt (date to be advised by the CBY team), to provide a hands-on workshop on the auctioning tool in addition to other advanced functionalities of the Refinitiv terminal for the benefit of the CBY team.

V. SYSTEMIC FOREIGN RESERVE ALLOCATION AND STATUS REPORTING FRAMEWORK

The data system at the CBY is quite outdated. An ad hoc reporting framework was used to monitor foreign reserves allocations and status reporting. While the system in place was minimally adequate for rudimentary FX management needs, modern data practices require a significant upgrade with updated products and processes in the Reserve Management Department and a new Data Warehouse System (DWH). The current system, for example, cannot easily retrieve necessary information or produce standard reports that include charts and graphics. A DWH provides the means to produce clean, accurate, timely, and integrated data. Specifically, it allows a central bank to:

- Build or mine historical data,
- Make timely decision making on risk management,
- Conduct market research and analysis, and generate routine reports,
- Allow the CBY reserve management users to quickly access critical data from some sources all in one place,
- Provide consistent information on various cross-functional activities,
- Conduct ad-hoc reporting and query,
- Integrate multiple sources of data to reduce stress and load on the core system,
- Reduce total turnaround time for analysis and reporting, and
- Store a large amount of historical data. Allowing the CBY reserve management team to analyze different periods and trends to make future predictions.

With the help of the ERLP team, a basic Excel spreadsheet for systemic foreign reserves allocations and status reporting framework was developed and finetuned in Q1 and updated in Q2. Also, the design of an FX data warehouse and requirements was completed. This is presented in detail in "*Macro – Annex 06 - FX Reserves Data Warehouse*". The design highlighted the need for several technological frameworks, including the necessity of having both Reuters and Bloomberg platforms. For the latter, the CBY requested the activation of the trial in Q2. These, in turn, can give real-time updates of the reserves portfolio, provide return and risk metrics also in real-time, and feed this data into the FX data warehouse system. The FX data warehouse will capture on a real-time basis the status of foreign reserve allocations and pricing based on market practices linked to the FX auctioning system described. In addition, the choice of the most appropriate portfolio management systems and information sources will all feed into the status reporting frameworks via the appropriate interfaces.

VI. PROGRESS TOWARDS ADOPTION OF MODERNIZED FOREIGN RESERVE DEPARTMENT UNIT/STRUCTURE

Building on initial FX management-related regulatory/operational reform and institutional upgrading analysis carried out previously, ERLP specialists focused on the further targeted analysis of best practice compliant workflow and institutional structures suitable for implementation in Yemen during QII on-site at the CBY. Workflow processes were developed mapped to best practice, including FX Exchange Management Protocols and a preliminary proposed organizational structure and set of job descriptions developed ("*Macro – Annex 07 - FX Management Protocols & Job Descriptions (English)*"). Workflow processes developed included best practice front office, middle office, and back-office processes. Key job descriptions were also developed to cover the job families for each function.

In addition, a granular holistic reserves management best practices program and workshop were designed over Q1 and modified in Q2 to cater to information gathered on-site in Yemen and gaps identified from interactions with CBY FXRM staff ("*Macro – Annex 08 - FX Reserves Management Best Practices Training Program (English)*"). The objective of this tailored program on FX Reserves Management Best Practices for the CBY is to provide capacity building on the pillars of modern portfolio management and enable the formulation of and pilot application of a CBY reserves management policy.

The program is structured in two parts: (i) Modern Portfolio Management & Global Capital Markets and (ii) FX Reserves Management CBY Applications, with the latter to be further modified based on Yemen-specific data inputs provided by the CBY. It is proposed to run for two days in May 2021 and two days in June 2022, distributed across nine sessions.

At the end of the program, participants are expected to understand, calculate, synthesize and apply modern portfolio management analytics, techniques, and policies to the practice of reserves management at the CBY. Applications will be both in line with international best practices and having a Yemeni-focused implementation strategy.

VII. SUPPORT THE INFORMATION COLLATION AND RELATED TECHNICAL PLANNING STEPS NEEDED TO FACILITATE REACTIVATION OF THE DMFAS EXTERNAL DEBT MANAGEMENT SYSTEM (IN COORDINATION WITH FISCAL ADVISORY TEAM)

On the reactivation of an international best practice sovereign debt management system, DMFAS's updated proposal for software and training, excluding hardware requirements, comes to USD 500K. DMFAS provided hardware specifications with cost estimates delegated to our IT expert based on the system specs shared by UNCTAD (provider of DMFAS). Also, contact was initiated with the main competitor for DMFAS, the Commonwealth Debt Management & Reporting System (CDMRS), which has the same features as DMFAS and is used by 60 countries globally. CDMRS's new release this year for their new debt management system software has some advantages to the DMFAS system, including Straight Through Processing (STP) of invoices. The automatic reporting to IMF and WB feature is also available on CDMRS. The new rebrand of CDMRS is 'Meridien.' Initial cost estimates for the competitor system are USD 250 to USD 300 K, or there is an annual payment plan, cloud-based option, which is the only GBP 38K of upfront cost and an annual fee of GBP 7,500. The cloud-based option would be good from a Disaster Recovery perspective and is also one of our workflow streams. The Commonwealth System, or Meridien as per the new rebrand counterparts, also shared hardware specification requirements shared with our IT expert for costing.

As in both cases, the CBY will be starting from scratch as DMFAS indicated they would not be able to restore old databases in Sanaa. There is no institutional knowledge of DMFAS at the CBY, and DMFAS is multiples more expensive than the Commonwealth new product option. The ERLP expert team strongly recommends adopting the latter and is happy to engage with the CBY team on this as such through to successful completion.

1.1.3 PAYMENTS SYSTEM REFORM

BACKGROUND

Through the end of 2020, ERLP finalized the Payment System Department's (PSD) organizational structure and job descriptions for all positions. A training program was prepared for the anticipated staff that would be recruited to fill these positions. The project also finalized and submitted a regulatory and operational framework for an automated check-clearance system in Yemen. In addition, detailed technical work on a regulatory and operational framework for a near-same day electronic interbank settlement system for the commercial banking sector was finalized.

QUARTERLY WORK ACTIVITIES AND DELIVERABLES

ERLP continued to work closely with the CBY during the second quarter to help jumpstart the critical process of transforming and modernizing basic payments system regulatory and technical infrastructure. In this regard, ERLP experts helped the PSD hire an additional five employees and provided them with intensive training to facilitate their quick integration. The project also provided essential training for existing CBY staff, including support related to the newly introduced regulatory guidelines and operational framework. Technical improvements to achieve the automated functionality of the check clearing system are underway and are expected to advance decisively during the next quarter. In addition, ERLP assisted the CBY in submitting the payment service provider (PSP) regulation to the Council of Ministers for approval and worked with the CBY to adopt the eMoney regulation, which is currently pending (both guidelines are expected to be approved post-Ramadan during Q3).

All necessary preparations for a near same-day settlement service have now been completed. The project will go live once the PSD staff responsible for this new function receive the required training, which is expected to occur next quarter as well. ERLP also prepared a detailed Budget Execution Action Plan, which includes a subsection on eSalary payments that will be implemented jointly by the Ministry of Finance (MOF) and the CBY. The action plan is discussed more extensively in the Fiscal Policy Development and Implementation section of this report.

ERLP payments experts also submitted a White Paper to establish the National Payments Council (NPC). This has been well received, with CBY approval anticipated toward the end of July 2021. ERLP will further intensify work with the CBY in this regard and provide support to establish the NPC. Overall significant progress has been achieved across all areas of engagement on payments system reform. In some areas, full implementation of targeted advancements has been moved back slightly to the immediate post-Ramadan period, reflecting the impact of the pandemic crisis and ongoing political economy uncertainties on CBY activities.

Table 6: Q2 Payments System Activities and Deliverables

Activity	Deliverables
Continue to provide training and outreach programs to the CBY payments system division, covering core payment system functional responsibilities	1. At least six targeted training sessions and/or outreach programs provided to the CBY payments system division, covering core payment system functional responsibilities 2. implementation of an automated check clearing system 3. Development of the subsidiary operational guidelines for MFS-based transactional activities in Yemen 4. "Go-live" implementation of near same-day electronic interbank settlement system across the commercial banking sector 5. Further, refine the MFS-based public sector salary payment program (in coordination with ERLP fiscal team) submitted
Initiate implementation of an automated check clearing system	
Develop subsidiary operational guidelines for MFS-based operations in Yemen.	
Initiate "go-live" implementation of the near same-day electronic interbank settlement system for the commercial banking sector.	
Further, refine and/or expand MFS-based public sector salary payment program (in coordination with ERLP fiscal team)	

Activity	Deliverables
Develop a White Paper for the establishment of a National Payments Council, designed to facilitate inter-agency stakeholder coordination and outreach on payment system reform implementation	6. A concise White Paper articulating the composition and oversight responsibilities of a National Payments Council developed

I. TRAINING AND CAPACITY BUILDING FOR PSD STAFF

The Central Bank launched the recruitment process for the PSD and began carrying out systematic formal, on-the-job training on the department's structure, operations, and near/medium/long-term goals. The development of practical training was also initiated, which will enable the existing staff to perform key department-related functions in the near term (e.g., SWIFT training).

A total of six initial training sessions were delivered on-site at the CBY premises for existing department staff and will continue for new hires who join the department during the next quarter. Training thus far has covered core payment system functional responsibilities, card payment security, IT Risk Management, eBanking services, ATM installation guidelines, and cybersecurity from an oversight perspective (as this is considered one of the department's principal functions).

The initial training sessions will help empower the new team members. Enhancing their capabilities will significantly impact the efficacy of the future payment system and ensure PSD staff have the basic technical and organizational skills to handle core department functions. ERLP will also assist the CBY staff in gaining an enhanced understanding of strategic options to improve the efficiency and transparency of the payments system.

II. AUTOMATION OF THE CHECK CLEARING PROCESS

The check clearing system is the medium through which checks are transferred from the paying bank to the collecting bank. As part of its initiative to develop the national payments infrastructure in Yemen, ERLP continued its work with the PSD to enhance and migrate check clearing from a manualized set of processes to a semi-automated system. This will improve and streamline this critically important payment clearance service and thereby:

1. pave the way toward further and more complete automation of the check clearing process
2. make the process more manageable, controlled, faster, traceable, and efficient
3. cut the number of days for clearing and settlement from t+4 to almost t+2 and then to t+1
4. give consumers the confidence and encouragement they need to increase their use of checks, which are the primary non-cash instrument being utilized in Yemen
5. help the CBY better analyze and report on the use of checks.

ERLP implemented critical steps significantly advancing core payment automation goals. Among these were check clearinghouse centralization, bank account consolidation, articulation of the necessary regulatory and operational frameworks, and finalizing the check printing and security features manual.

During the reporting period, the CBY, with project support, adopted the regulatory and operational framework for the automated check clearinghouse. They jointly presented and discussed the check printing manual with several banks to ensure the new check standards are applied as specified in the new manual.

Printing checks in line with the new standards will help generate check data in an electronic format that can be sent to the check clearinghouse ahead of each clearing session. This will reduce the need for banks to meet at the CBY and manually clear checks. After receiving the clearing data, CBY staff will upload the data to the system, and the final clearing statements will be produced automatically. The physical checks will be provided later by bank representatives for the final reconciliation. Using the enhanced system, the CBY will provide banks with the clearing results by electronic means and submit the clearing file automatically to the core banking system for settlement.

Using this process will result in faster check processing, regardless of the branch in which the checks are deposited. In addition, all checks deposited at banks before closing will be presented for clearance the following day. Once cleared, the funds will also be credited to the customer's account on the following business day before closing. In this case, the settlement will be t+1. In addition to shortening clearing times, the enhanced system will help the CBY create a data warehouse for all the checks cleared through the system. The data warehouse will provide the functionality to perform analysis, reports, tracks, and conduct dispute resolution, as needed, more efficiently.

The enhanced check clearing system and its supporting processes will allow funds to be credited significantly faster than possible with the current manual process and increase the efficiency of conducting business transactions across the country. The critical steps taken during this quarter have laid the groundwork for what is expected to be full and effective implementation of the automated check clearing system during Q3.

III. MOBILE FINANCIAL SERVICES SUBSIDIARY OPERATIONAL GUIDELINES

ERLP payments experts work closely with CBY leadership during the past quarter to expedite the approval and issuance of the Mobile Financial Services regulation. In response to CBY's concerns that there is an insufficient basis in the Yemeni legal framework to allow it to approve overarching regulatory reforms of this nature, ERLP undertook a targeted legal review focused on both the Yemen constitution and the Central Bank Law. In a detailed explanatory note based on this review, ERLP submitted to the CBY its conclusion that such a regulation would not conflict with existing Yemeni law.

The CBY subsequently indicated its wish to issue these instructions in such a way that will allow it to license and collect licensing fees for MFS, as it currently does with banks and exchange companies. ERLP experts developed a related legal and regulatory solution for the CBY: a decree from the Council of Ministers could authorize the CBY to issue these instructions and allow the CBY to license and collect associated fees from payment service providers in a - manner. ERLP provided a draft decree for this purpose that is currently undergoing final review.

To help expedite the process for jumpstarting eMoney service development, the project drafted a set of digital financial services interoperability rules that set out detailed operating procedures and conventions for national MFS. These rules can be issued as soon as the core MFS regulation is approved and published. By proactively developing operating rules, the CBY and ERLP aim to deliver Yemeni national MFS in the shortest possible time.

The day-to-day operation of MFS is expected to be responsible for a new management body owned and operated by the industry and overseen by the CBY. ERLP has therefore drafted a constitution and membership agreement for the proposed governing body. These documents are ready for CBY review, approval, and publication. They will be presented to the CBY during the next quarter upon MFS approval, with adoption anticipated no later than early in the fourth quarter of 2021.

IV. INITIATE "GO-LIVE" IMPLEMENTATION OF NEAR SAME-DAY ELECTRONIC INTERBANK SETTLEMENT SYSTEM FOR THE COMMERCIAL BANKING SECTOR

During the first quarter, ERLP performed multiple tests of the near same-day settlement service using CBY's current core banking system and the SWIFT network that revealed several defects and malfunctions. These were addressed, and further tests confirmed that the initial issues had been resolved.

During the quarter under review, ERLP provided the CBY with the necessary support to identify the transactions that can be migrated to more streamlined processes with shorter settlement cycles. ERLP undertook this work with CBY employees from several different departments, including the CBY IT Department and the Payment Systems Department Directors.

With the assistance of ERLP, the Central Bank has completed a large part of the PSD recruitment process. The newly hired PSD staff will start work officially during the next quarter. Once they are in place, ERLP will provide necessary additional training to ensure they are equipped with the knowledge and skills needed to efficiently deliver near same-day settlement services.

In parallel, ERLP conducted additional field visits to commercial and Islamic banks to assess their readiness, identify obstacles and issues that may hinder the project's implementation, and help the banks find the best solutions to their challenges.

The project assisted the CBY in consolidating all bank accounts and transferring the existing check clearinghouses to the central check clearinghouse, which had been fully established (with ERLP assistance) in January 2021. During this period, ERLP experts also worked closely with the Central Bank team to familiarize them with the new working mechanisms associated with the consolidated accounts and the central clearing system. They also ensured that the CBY core banking system did not suffer imbalances after the bank accounts were consolidated.

During the coming quarter, ERLP will provide CBY staff with training and capacity building and closely monitor the stability of the clearinghouse environment in close coordination with the banks. ERLP will support the CBY to draft banking circulars announcing the "go live" date early in the quarter. Interbank payments will be launched through the SWIFT network across all banks, starting with basic transactions. Gradually, more transactions will be added. At the same time, the project will continue to identify and define additional improvements. Other pilot testing programs related to liquidity management (lending and borrowing) will be launched as well, shortly after full implementation of interbank fund transfers and near-same-day settlement.

V. FURTHER REFINE AND EXPAND THE MFS-BASED PUBLIC SECTOR SALARY PAYMENT PROGRAM (IN COORDINATION WITH ERLP FISCAL TEAM)

During the previous quarter, ERLP had several discussions with the CBY, MOF, and Ministry of Civil Service (MOCS) to analyze the current public-sector salary payment process to propose a more advanced, transparent, and electronic method for processing payment transactions. At present, most salaries are disbursed via paper-based manual processes and as cash payments.

ERLP has worked in this regard with the CBY, MOF, and MOCS to prepare a detailed action plan for conducting a pilot program designed to pay salaries electronically to selected civil servants. The pilot will test Yemen's ability to pay salaries electronically and highlight any challenges in operating a new salary payments system. Such a program would serve as a starting point for more reforms in this area, allowing the electronic salary payment service to be expanded to more people.

The MOF and MOCS have underscored their interest and incorporated the salary automation initiative within a broader overall broader wage bill reform effort. ERLP experts will build on the current institutional momentum being created in this area by -- in addition to the action plan for budget execution – developing a strategic framework for broader wage-bill reform during Q3 as well (with pilot implementation of an automated payment mechanism during Q 3-4 serving as an ongoing centerpiece of the anticipated strategy)

VI. DEVELOP A WHITE PAPER FOR THE ESTABLISHMENT OF A NATIONAL PAYMENTS COUNCIL

ERLP experts dialogued intensively during the quarter with senior CBY officials on the importance of establishing a National Payments Council and the core functions it would carry out in helping drive the development of an efficient electronic payments system for Yemen. In fact, the Council would serve as a platform for stakeholders in the payment services industry to discuss, consult, cooperate, and promote the growth of the Yemeni payment services sector. The CBY would also be able to use the Council to collect vital data needed to effectively inform policymaking decisions on payment system development to spur the expansion of electronic payments system, while simultaneously protecting consumer interests.

A White Paper to establish a National Payments Council, drafted by ERLP, was presented to the leadership of the CBY and the PSD Director during Q2. During the presentation, the value of the proposed Council was explained as well as its key activities and objectives, its institutional framework and governance, and the steps the CBY would need to take to create it. The concept was discussed and welcomed by the CBY, and the White Paper was submitted to the CBY Governor and Board of Directors for approval.

ERLP will follow up with the CBY to secure approval of the White Paper, currently expected during the immediate post-Ramadan period in Q3. The team will then provide the needed targeted technical assistance to the Central Bank required to establish the Council rapidly.

(See "*Macro – Annex 09 - White paper to establish A National Payments Council in Yemen")*

VII. NEXT STEPS

During Q3, ERLP will provide follow-on training and capacity building for the Payment Systems Department team to enable them to fully implement and expand the near same-day settlement across all banks. A workshop is also planned for CBY staff covering financial risk management. ERLP will also continue to proactively engage with the CBY to help facilitate the adoption of the critically important overarching MFS regulation (which will also help establish the regulatory and operational basis for conducting electronic payment of public sector salaries).

In addition, ERLP experts will continue working with the CBY IT Department to launch the first phase of the improved check clearing system, starting with the automation of its basic functions. ERLP will also continue to provide the necessary technical and training support to the CBY and banks to achieve the targeted reduction in settlement times for bank clearance transactions. The enhanced system and associated processes will contribute significantly to the CBY's progress toward greater automation. By shortening the clearing cycle, these settlement system operational upgrades will also serve over time to boost public acceptance of using checks. In this regard, as users become familiar with the newly printed checks, they will also come to appreciate the important technical and security features that make it difficult for the checks to be forged or manipulated. Greater customer confidence in checks should thus translate into an increase in their use as an important non-cash payment instrument over the near to medium term.

Moreover, ERLP will work intensively with the CBY during the next quarter to facilitate approval of the White Paper recommendations on establishing a National Payments Council. The project will continue to provide the necessary support to CBY to fully establish and equip the Council to assume its envisaged role to promote rapid enhancement of the national payment system in the Republic of Yemen.

In addition to these activities, ERLP advisory specialists will develop comprehensive business and technical requirements for the automated real-time gross settlement (RTGS) and Automated Clearing House (ACH) tender documentation as well.

1.1.4 COLLECTION AND REPORTING OF MONETARY STATISTICS

BACKGROUND

ERLP assisted the CBY Monetary Research Department in preparing a Quarterly Bulletin to facilitate the efficient collation and regular publication of data presenting a snapshot of macro-financial performance in Yemen. This exercise also provided an opportunity to develop concise policy notes on key macro-financial policy issues of interest to financial sector stakeholders.

Accurate and comprehensive monetary statistics are critical for analyzing monetary conditions and formulating and implementing effective monetary policy. To improve the CBY's credibility and transparency, a number of monetary reports were compiled, including the Central Bank Balance Sheet, the Consolidated Balance Sheet of Commercial Banks, and the Monetary Survey. To this end, last quarter, the CBY approved an initiative to publish a regular Quarterly Bulletin presenting core monetary statistics. The Quarterly Bulletin will serve as a core part of the CBY's reporting, serving as a primary public source of economic data.

QUARTERLY WORK ACTIVITIES AND DELIVERABLES

Table 7: Q2 Collection and Reporting of Monetary Statistics Activities and Deliverables

<table>
<tr><th>Activity</th><th>Deliverables</th></tr>
<tr><td>Support ongoing preparation of a monthly CBY macro-financial statistical presentation and analysis bulletin</td><td rowspan="3">1. A monthly CBY macro-financial statistical presentation and analysis bulletin prepared (starting in December 2020).
2. At least two additional selected policy notes on priority macro-financial reform issues prepared.
3. A comprehensive final report on all related activities.</td></tr>
<tr><td>Support preparation of at least two additional selected policy notes on priority macro-financial reform issues</td></tr>
<tr><td>Provide a final report on all related activities</td></tr>
</table>

I. A MONTHLY CBY MACRO-FINANCIAL STATISTICAL PRESENTATION AND ANALYSIS BULLETIN PREPARED

ERLP supported the ongoing preparation of the CBY quarterly macro-financial statistical presentation and analysis bulletin. The Research Department and ERLP jointly drafted the first bulletin in English and Arabic with the approval of the CBY Vice Governor.

Quarterly Bulletin – Economic and Monetary Developments, Issue #1 covered data for the first nine months of 2020 and was finalized in Arabic in December 2020 and English in January 2021. The bulletin was distributed to all the Board Members as well as all CBY Senior Staff. As new data became available during this quarter, the staff began working on the next issue of the bulletin. This exercise helped enable the staff to become more self-reliant in preparing rigorous financial and statistical publications. As a result, *Issue # 2 is in process* and is expected to be finalized during April 2021. Work will also begin on *Issue #3*, which is expected to be available by the end of June 2021, covering the first quarter of CY2021.

(See "*Macro – Annex 10 - CBY Quarterly Bulletin Economic and Monetary Developments Issue #1*" and "*Macro – Annex 11 - CBY Quarterly Bulletin Economic and Monetary Developments Issue #2*")

II. AT LEAST 2 ADDITIONAL SELECTED POLICY NOTES ON PRIORITY MACRO-FINANCIAL REFORM ISSUES PREPARED

The collation and regularized publication of macro-financial data that goes into preparing the Bulletins has created an added opportunity to provide cogent policy analysis that can effectively inform the CBY's core macro-financial policy/regulatory formulation and oversight activities. This, in turn, can promote increased rigor and relevance in CBY's money demand estimation, inflation, annual monetary plan development, FX management activities, and banking regulatory oversight processes.

An additional macro-financial reform policy note was prepared during the quarter: *Modernizing the Cash Currency Management Framework at CBY.* (Followed by a comprehensive report on the "COVID-19 Macroeconomic, Fiscal, and Financial Impact Public Sector Response and Policy Recommendations", as discussed in the following section.)

(See "*Macro – Annex 12 - Policy Note #3 – Modernizing the Cash Currency Framework*")

CONCLUSION AND NEXT STEPS

CBY has established a sound analytical foundation for macro-statistical data collation and analysis and related macro-financial policy review and formulation processes. Looking ahead, it will be important to continue to advance the institutionalization of macro-financial data collation/analysis and related reporting efforts; in a manner that can both support sound macro-financial policy and regulatory decision-making and keep financial sector participants and broader institutional constituencies effectively informed of macro-financial developments in Yemen.

1.1.5 COVID-19 MACROECONOMIC, FISCAL, AND FINANCIAL IMPACT PUBLIC SECTOR RESPONSE AND POLICY RECOMMENDATIONS

INTRODUCTION

The spread of COVID-19 has caused a major shock to the global economy, and Yemen was not spared from its impact. Given the country's challenging political and economic situation, Yemen was already struggling with macroeconomic instability, food insecurity, disruption of public services, and mounting constraints to social and humanitarian aid before the crisis.

The dual shock of the pandemic crisis and the global oil price deterioration (oil is the primary source of government revenues in Yemen and a key source of foreign currency) further escalated the pressure on the exchange rate, leading to a significant depreciation of the Yemeni rial. This has, in turn, raised inflation levels because the economy mostly relies on imports.

Due to the global economic crisis, foreign remittances have dropped by about 20 percent, especially from the Gulf countries, where most Yemeni expats reside. That drop, along with a severe decline in foreign reserves, has led to a liquidity squeeze. The decrease in remittance inflows also worsened the current account and balance of payments (BOP) deficit, which reached $1 billion by the end of 2020.

The loss of oil revenues has increased the government deficit, which is mostly financed through monetization. Broad money (M2) witnessed an increase of about 15 percent during CY2020, compared with 11.5 percent in 2019. This increase in the money supply was consistent with requirements for maintaining a minimum level of economic buoyancy in the face of the contractionary pressure associated with the pandemic crisis. It was mostly driven by an increase in direct financing of the budget deficit, in a manner consistent with the 2020 annual monetary plan.

This paper assesses the impact of the COVID-19 pandemic on the Yemeni economy, including the financial market in terms of activities/operations and performance. It also assesses the monetary and fiscal policy responses initiated by the Yemeni government to address the consequences of the crisis in collaboration with the ERLP team.

The analysis presented in this paper is based on desk research, structured surveys, and direct interviews and consultations with senior government representatives from the Central Bank of Yemen (CBY) and the Ministry of Finance (MOF). The interviews were in part conducted face-to-face by ERLP Aden-based consultants and in part remotely.

THE IMPACT OF THE PANDEMIC CRISIS ON THE OVERALL ECONOMIC OUTLOOK IN YEMEN

Before the pandemic crisis, Yemen had witnessed a year of relative economic stability, which was reflected in a positive growth rate for 2019, and that was the second year of growth in a row. This growth was primarily driven by the recovery of oil production and exports, which reached its peak in 2019 at $1.1 billion, after a contraction of about 40 percent during 2014-2017.

The outbreak of the COVID-19 pandemic in early 2020 and the subsequent lockdowns and collapse of oil prices generated contractionary macroeconomic adjustment pressures worldwide. This included a significant reduction in export demand for oil and other primary commodities and a concurrent reduction in international commodity prices. In conjunction with the pandemic spread, the oil price drop has had significant adverse effects on Yemen's economy, as discussed in detail hereafter.

Table 8: Q2 COVID-19 Impact Activities and Deliverables

Activity	Deliverable
Disseminate a monthly "tracker" instrument that can be utilized by CBY to monitor COVID impact on the major macro-financial performance areas enumerated above	A comprehensive final report on all related activities. This report will include a targeted game-plan for establishing selected COVID-related policy/ regulatory/institutional response interventions; as well as the final version of the tracking toolkit to be utilized by CBY in monitoring COVID impact on the major macro-financial performance areas
Support preparation of at least two additional selected policy notes on priority macro-financial reform issues	
Finalize and support the initial implementation of selected COVID-related policy/ regulatory/institutional response options/interventions by CBY; designed to help buffer the impact of the pandemic on macro-financial stability and the level and efficiency of financial intermediation services	

I. IMPACT ON ECONOMIC GROWTH

Economic growth in Yemen contracted by 5-6 percent in CY2020. The reduction in government revenues, largely due to the global recession associated with the pandemic crisis and the collapse of global oil prices, led to significant reductions in public salaries and delays in pension reimbursements, thereby further slowing down aggregate demand.

CY2020 also witnessed exceptionally heavy rainfalls in Yemen, which caused intense flooding, infrastructure damage, and human casualties. It is worth noting that casual work and petty trades represent the main sources of income for most households in Yemen (about 45 percent of Yemeni households in the north and 35 percent in the south).

II. IMPACT ON INFLATION AND LIQUIDITY

Yemen saw a relative improvement in basic commodity prices during 2018-2019. However, by early CY2020, inflationary pressures had increased again owing to pandemic-related disruptions in distribution chains and the depreciation of the Yemeni rial. The inflation rate increased to an average of about 25 percent in CY2020, compared with 10-15 percent in CY2019.

The CBY pursued a moderately expansive monetary policy in response to the crisis, to ensure the smooth functioning of the payment system and support overall business requirements, and to cushion the contractionary impact of new domestic supply and demand constraints resulting from pandemic containment measures (market closures, bans on public gatherings, increase in transport costs, etc.). In this regard, ERLP assisted the CBY in designing a robust monetary program for 2020, the first since the bank's relocation to Aden, to help the CBY contain inflation within reasonable limits. Within this framework, broad money (M2) increased by 15 percent in 2020, significantly below the annual ceiling target of 22.2 percent. Base money grew by 13.3 percent, also significantly below the annual ceiling target of 20.6 percent. Currency issuance increased by 15.1 percent in 2020, far below the ceiling target of 25.5 percent.

The monetary program proved to be highly effective as it helped rationalize the money supply and limit the inflationary pressure caused by monetary emission. The effects of the pandemic could have been significantly worse without this accommodative but prudent monetary framework.

For CY2021, the annual monetary plan projected broad and base money to grow by 18.3 percent and 19.1 percent, respectively, consistent with the average inflation rate of approx. 20 percent. In the absence of a foreign reserve buffer, a strong commitment to the annual monetary plan targets remains the only tool at the CBY's disposal for containing inflationary pressures and stabilizing exchange rate movements.

III. IMPACT ON FOREIGN EXCHANGE

The pandemic crisis led to a significant depreciation of the rial in CY2020, based on multiple direct and indirect adverse effects of the crisis. These included the decline in oil prices and the significant drop in remittances, in addition to the depletion of the $2 billion that Saudi Arabia had deposited in the CBY in 2018 — all of these factors placed serious downward pressures on the exchange rate.

Accordingly, the Yemeni rial depreciated to 700 rials per USD at the end of CY2020, from 591 rials/USD at the end of CY2019. The exchange rate had crossed the threshold of 900 rials per dollar on several occasions during CY2020. These trends led to a substantial shortage of foreign currency in the local FX market, hindering the country's ability to finance its imports of essential goods.

Due to this shortage in foreign currency, the CBY has nearly depleted its foreign reserves, which are essential not only for financing imports but also for stabilizing the rial's value.

IV. IMPACT ON THE BANKING SECTOR

Yemen is a cash-based economy with limited intermediation capacity, including grossly inadequate payment instrumentalities. The institutional and commercial capacity of the banking system is very fragile, and the confidence of the public in the capacity of the financial system and financial service provision is limited. The low rate of bank deposits in Yemen — 2,565 billion rials, which is approximately $3.9 billion, for a population of 30-plus million — reflects the significant lack of public confidence in the Yemeni banking system.

Seventeen banks are operating in Yemen, all of which (except Al Ahli Bank) is headquartered in Sana'a. The banks provide various services to the public through their 400 branches and offices spread across the country. The conventional banks account for about two-thirds of the market share, while Islamic banks and microfinance institutions account for the remaining one-third. Banking services are concentrated mainly in the major cities. Secondary cities and rural areas lack most financial services, except for remittance transfers (handled through commercial bank branches, exchange bureaus, and post offices).

As discussed earlier, the liquidity squeeze had started in Yemen before the pandemic crisis erupted, and it escalated further subsequently. There is a huge concentration of bank assets in government securities (bills, bonds, and *Sukuk*), representing nearly 60 percent of the banking sector's total assets. Many banks are unable to liquidate their investments to meet the reserve requirements for withdrawals by depositors. As a result, many banks imposed a ceiling on cash withdrawals, further lowering public confidence in the overall financial system.

The decrease in public revenues, given the slowdown in oil production and the collapse in oil prices, restricted the overall liquidity position of the banking sector. Banks have also lost a significant portion of their assets, which had been deposited in Lebanese banks. This situation led to two significant challenges: The number of non-performing loans (NPLs) increased while the available lending resources were further contracted. It is worth noting that inadequate access to finance is one of Yemen's most severe impediments to sustainably expanding business activities.

In CY2019, preliminary figures indicate that the total amount of credit granted by banks to the private sector was 578.2 billion rials. The pandemic outbreak has adversely affected the NPL portfolio in the banking sector, especially in the segments that have been seriously hit by the economic downturn, such as oil and construction services. NPLs are likely to have been rising significantly in the banking sector in Yemen over the 2019-20 period and could further escalate in CY2021. Moving ahead, it will prove critically important that CBY gain a much more up-to-date and comprehensive picture of commercial bank financial performance trends and the related impact of the pandemic over the past year. In this regard, ERLP bank supervision support efforts have been focused on moving forward in this direction. They have initiated a process of working with the CBY Bank Supervision Dept. to systematically update financial performance data at least through 2020 and for early 2021).

V. IMPACT ON THE BUDGET DEFICIT

As mentioned earlier, Yemen was already struggling with an expansive budget deficit before the start of the pandemic crisis. In 2019, the government deficit represented 4.6 percent of gross domestic product (GDP), and the country had a total government debt of approx. 56.8 percent of GDP. Government resources were already strained due to the quasi-depletion of the US$2 billion Saudi deposit, of which only US$549 million remained at the start of 2020.

By early CY2020, the pandemic crisis, combined with the global crash in oil prices, further exacerbated the financial pressure on the annual budget. Oil revenues decreased by nearly 50 percent in CY2020, reaching US$339 million (YER 330 billion), compared with US$779 million (YER 458 billion) in 2019. The drop in oil revenues was primarily driven by the global collapse of oil prices, which fell from an average of US$65/barrel in CY2019 to an average of US$39.6 barrel in CY2020, combined with the overall recessionary impact on the economy and the disruption of supply chains.

Non-oil revenues, however, were not negatively impacted. The overall increase in price levels worked to help offset the slowdown in the overall economic activity and trade flows. As a result, sales tax receipts marginally increased by 0.2 percent in CY2020, while customs' receipts increased by approx. 18 percent.

The pandemic crisis also again led to an increase in public expenditures. Based on the recommendation of the Pandemic Ministerial Committee, the MOF increased the healthcare budget to YER 16.5 in CY2020 and YER 39.8 billion in CY2021. As a result, the budget deficit rose by 13 percent to YER 796.9 billion in CY2020, up from YER 703.24 billion in CY2019.

The CY2021 economic outlook looks more positive, with total oil revenues expected to increase by 170 percent, reaching US$1.06 billion by the end of the year. This increase is expected to be primarily driven by expanding the production capacity in four of the seven existing oil fields. As a result, total annual production is expected to reach an average of 29 million barrels in CY2021, compared with 22 million barrels in CY2020, marking an overall expected increase of 32 percent.

The adjustment in global oil prices should also contribute to the projected increase in oil revenues. In this regard, the average forecasted Brent price in CY2021 is projected at US$60.6/barrel, compared with US$40.2/barrel for CY2020 – an increase of about 50 percent.

MONETARY AND FINANCIAL-SECTOR RESPONSE POLICIES

I. MONETARY POLICY ADJUSTMENT STRATEGY

ERLP and the CBY have been working closely to ensure that the government's primary monetary policy objectives are being fully met, considering the mounting inflationary pressures aggravated by the pandemic. These monetary policy objectives aim to contain prices and achieve macroeconomic stability, with a higher growth rate, stabilized inflation, and lower unemployment rates.

The CBY places great importance on adherence to the monetary policy framework designed by ERLP. This was demonstrated in the bank's reconfirmation of the commitment made in CY2020 to meet the ROYG's quantitative targets for broad money and base money circulation. The CBY will continue using a monetary plan designed in collaboration with ERLP in CY2021.

The updated CY2021 monetary plan projects broad and base money growth at 18.3 and 19.1 percent, respectively, while monetary emission is estimated to grow by 22.7 percent. These values are consistent with a targeted inflation rate within the range of 15-20 percent. Adherence to these quantitative targets is necessary to rationalize money-supply prerequisites and limit high inflationary pressures stemming from monetary emission.

The CY2021 monetary framework should also help pave the way for foreign exchange adjustments and the gradual abolishment of multiple exchange rates. The CBY is also working with ERLP experts to develop a market-based toolkit that could facilitate a gradual transition towards a more diversified set of monetary control instruments, including open market operations, standing facilities, and (above all) a structured reserve requirement system. Progress in this direction should also help facilitate the effective implementation of the CY2021 monetary framework.

II. EXCHANGE RATE MANAGEMENT

The downward pressure on the exchange rate, which has escalated due to the pandemic crisis, is expected to persist through 2021, considering the lack of foreign reserves available to cover the widening balance of payments deficit. This will continue to affect the purchasing power of local Yemenis, placing further stress on consumers and businesses. Within this context, ERLP has developed a time-framed action plan to assist the CBY in establishing a competitive and transparent FX allocation system that can promote price discovery and improve market stability, thereby alleviating the ongoing pressure on the foreign exchange rate.

This allocation framework envisages a comprehensive FX auctioning model, which would allow the CBY to intervene as needed in a transparent and non-distortive manner to help stabilize the Yemeni Rial. This framework is consistent with best practice compliant FX management/allocation practices regionally. It defines a clear and transparent set of eligibility criteria for market participation, covering commercial banks and money exchange bureaus.

Effective exchange-rate management is particularly important in Yemen because of the role that enhanced currency stability can play in stabilizing domestic prices. This, in turn, reflects the heavy import-dependency of the Yemeni economy and the resulting high degree of pass-through from the exchange rate to inflation.

III. BANKING SECTOR POLICIES

ERLP is working closely with the CBY to i.) assess the impact of the pandemic crisis on liquidity and solvency in the banking sector, and ii.) review the loan forbearance policies conducted by commercial banks in view of the crisis and ensure that the CBY monitors these within the framework of a wider overarching financial forbearance strategy/game plan. ERLP is also working with the CBY to design adequate health and safety policies within the financial sector, to ensure the protection of banking sector employees, and prevent transmission of COVID-19 (See "*Macro – Annex 13 - Banking Sector Survey Questionnaire*")

To this end, ERLP designed and administered a survey that was addressed to selective commercial banks. The survey reviewed the preferential rates and policies applied to businesses and individuals. The survey also reviewed the health and safety policies followed by banks. It assessed the technological capacities of these banks and whether they were able to switch to electronic banking for some of their activities.

The survey demonstrated that some commercial banks had, in fact, taken the initiative to offer preferential policies to their corporate customers. For example, the Yemen-Kuwait Bank (YKB) has exempted 50 percent of loan repayments/installments across all economic sectors under the bank's crisis management plan. The survey also showed that all surveyed banks had reduced their person-to-person operations and relied increasingly on electronic banking facilities.

ERLP is working closely with the CBY to ensure that these policies are tracked and monitored closely as the CBY is expanding its capacity to enforce stronger financial reporting and oversight requirements within the banking system. It is crucially important moving forward that the CBY assesses the implications of these policies within an overarching debt forbearance framework that considers the overall financial stress imposed on the banking sector due to these policies.

At the same time, ERLP is also working closely with the CBY Bank Supervision Department (BSD) to facilitate the effective implementation of a phased regulatory and financial adjustment plan that could help commercial banks respond effectively to liquidity and solvency challenges of the pandemic. This plan will be developed in a manner that aims to protect core macro-financial stability parameters while limiting disruptions in financial-service provision. Efforts will also be directed towards improving the quality of data collection within the banking sector. This, in turn, will be utilized to facilitate the elaboration of reliable and consistent key macro-financial indicators/balance sheets and assessing with greater precision the impact of COVID-19 on financial sector stability in Yemen.

IV. HEALTH AND SAFETY MEASURES WITHIN THE BANKING SECTOR

In response to the pandemic crisis, the CBY issued a circular with strict precautionary and preventive health and safety measures to be applied within the CBY and for the financial sector at large, including:

- Reducing working hours, the number of employees, and the frequency and size of business events and gatherings.
- Granting employees with compromised immunity due to chronic diseases an exceptional paid leave.
- Setting up a special arrangement for salary disbursement for public servants according to a pre-defined schedule to limit large gatherings if a unified payday continues to be followed.

- Wearing face covering and using hand sanitizers within the different branches of commercial banks and during direct interfacing activities with the public/customers.
- Carrying out an awareness campaign through the media center to warn the public about the serious implications of the pandemic and the available tools to prevent the spread.

Following ERLP recommendations, the CBY also issued a circular to all commercial banks, Islamic banks, and foreign exchange bureaus, urging each financial institution to put in place an emergency precautionary plan to limit the risk of the outbreak of the Coronavirus. The circular lists detailed procedures on how to prevent the spread of the virus amongst financial sector employees.

FISCAL POLICY RESPONSE

I. NEAR-TERM STRATEGIES

ERLP has been working closely with MOF to develop a clear fiscal policy response strategy in view of the pandemic crisis. In this regard, the government has created a 'Pandemic Inter-Ministerial Committee' to address the consequences of COVID-19 on public health and the economy. Within this context, ERLP has worked closely with the MOF Budgeting Department to design a targeted pandemic response component within the annual budget.

This initiative aims to improve health care budget planning processes based on practical budget prioritization criteria while also focusing on keeping healthcare at/near the top of the MOF's overall budgeting priority list. ERLP has also helped the MOF take key planning steps needed to raise urgently needed external resources to effectively finance pressing immediate healthcare needs in response to the pandemic.

The Ministry of Health (MOH) provided medical equipment to quarantine centers in selected governorates through this joint effort. The MOH has also received technical assistance (mostly respirators and medical safety tools) from donor institutions, primarily the World Bank, in collaboration with the World Health Organization.

Table 9 presents a detailed summary of government expenditures and foreign aid allocated to the healthcare sector in response to the COVID-19 crisis. It presents a detailed breakdown of the allocation of COVID-related government expenditures and foreign aid in the healthcare sector for CY2020 and CY2021. Overall, total healthcare expenditure allocations for COVID-related policies reached YER 16.52 billion in CY2020 and increased to YER 39.8 billion in CY2021. Foreign aid in response to the crisis in CY2020 is estimated at YER 24 billion and YER 22 billion for CY2021. Overall, COVID-19-related allocations are expected to increase by almost 52 percent in CY2021.

In CY2020, MOF allocated YER 55 million to finance wages and other compensation for medical staff working at COVID-related medical sites. This was increased to YER 5.5 billion in CY2021. MOF also allocated YER 1 billion each for CY2020 and CY2021 to support spending on COVID healthcare-related goods and services. External donors provided additional funding of approximately YER 11 billion in each of CY2020 and CY2021, which were channeled to the procurement of medical supplies, including rapid Covid-19 tests.

In addition, the government secured YER 1.2 billion in CY2020 for the acquisition of non-financial assets (capital expenditures), which were mainly used to buy medical equipment for hospitals and quarantine centers. The government has allocated the same volume of resources for the acquisition of medical equipment in CY2021. External aid for acquiring COVID-related non-financial assets reached YER 13 billion in CY2020 and YER 11 billion in CY2021.

About half (52 percent) of COVID-19-related costs are slated to be allocated for social subsidies, grants to service entities, and social benefits. MOF allocated YER 14 billion in CY2020 and allocates YER 32 billion in CY2021, respectively, for social subsidies, grants and benefits in response to COVID-19 social stabilization needs.

Table 9: COVID-19-Related Government Healthcare Expenditures, CY2020 and CY2021

Year	CY2020		CY2021	
Budget Classification	COVID-19 Related Cost Factor (in YER million)			
	General Treasury	International Assistance	General Treasury	International Assistance
Section 1: Wages & Compensations	**55**	**0**	**5,500**	**0**
Wages of Medical Staff	35	0	3,500	0
Additional Financial Incentives for Medical Staff	20	0	2,000	0
Section 2: Expenditures on Goods and Services	**983**	**11,073**	**1,059**	**10,880**
Medical Supplies	943	10,350	1,000	10,000
Public Awareness Campaigns and Training Seminars	22	0	30	0
Quick COVID-19 Tests	0	63	0	80
Outsourced Medical Services	1	0	5	0
Subsidized Meals for Medical Staff & Volunteers	2	0	4	0
Transportation Expenses to Local Governorates	15	0	20	0
Logistical/Operation Medical Expenses	0	660	0	800
Section 3: Social Subsidies, Grants, & Benefits	**14,212**	**0**	**32,000**	**0**
Tax & Customs' Exemptions	11,567	0	11,567	0
Financial Subsidies to Yemeni Airlines	720	0	720	0
Financial Subsidies to Electricity Companies	0	0	12,000	0
Financial Transfers to Local Governorates	1,755	0	7,000	0
Financial Transfers to Al-Amal Medical Center	60	0	60	0
COVID-19 related social Benefits	110	0	653	0
Section 4: Non-Financial Asset Acquisition	**1,273**	**12,990**	**1,250**	**11,050**
Medical Equipment for Hospitals & Schools	750	12,990	750	11,050
Medical Equipment for Isolation & Quarantine Centers	500	0	500	0
Temperature Screening Devices	23	0	0	0
Total Expenditure	**16,522**	**24,063**	**39,809**	**21,930**
Grand Total in YER million	**40,585**		**61,739**	
Grand Total in USD million	**47**		**71**	

Table 10 presents total government expenditures on healthcare as a percentage of GDP for CY2020 and CY2021.

In CY2020, the government allocated YER16.5 billion (the equivalent of US$1.9 million, which represents just 0.11 percent of GDP) for healthcare spending. External donors provided additional foreign assistance resources of YER24 billion. Thus, total healthcare spending (out of the budget and foreign assistance combined) reached YER 41 billion (USD 47 million) for CY2020, representing 0.27 percent of GDP.

In CY2021, MOF raised its budget allocations for healthcare spending to YER 40 billion (equivalent to USD 47 million, representing 0.32% of GDP). Additional donor assistance received in response to the pandemic in CY2021 has so far reached YER22 billion (the equivalent of USD 22 million, which represents 0.16% of GDP). Thus, total healthcare expenditures have reached YER 62 billion so far in CY2021, the equivalent of USD 72 million, representing 0.40 percent of GDP.

Table 10: Total Public expenditures in Response to COVID-19

	CY2020			CY2021		
	In Billion rials	In USD million	% of GDP	In Billion rials	In USD million	% of GDP
Financed by the Treasury	17	19	0.1	40	47	0.32
Financed by Donors	24	28	0.16	22	25	0.16
Total Expenditures	41	47	0.3	62	72	0.4

DEBT FORBEARANCE

I. INTERNATIONAL MONETARY FUND (IMF)

Yemen has recently benefited from the first and second tranches of the COVID-19-related application of the IMF's Catastrophe Containment and Relief Trust (CCRT). The CCRT provided IMF debt service relief from April 2020 to October 2020 and from October 2020 to April 2021, at an amount equivalent to SDR 14.44 million (Special Drawing Rights) and SDR 10.96 million, respectively.

The CCRT may also enable Yemen to benefit from service debt relief for the next two years if there is fresh replenishment of the trust by international donors. This could further boost the initial debt relief envelope approved for Yemen from SDR 25.4 million to SDR 53.4 million.

II. THE PARIS CLUB

The Paris Club recognized that Yemen was eligible for benefits from the Debt Service Suspension Initiative (DSSI), which was endorsed by the G20. Thus, the Paris Club creditor countries agreed to provide the Yemeni government with a time-bound suspension of debt service from May 1 to December 31, 2020. Yemen is committed to devoting the resources freed up by this initiative to increase expenditures on COVID-19 mitigation in the health, economic, and social spheres. Yemen is also committed to seeking equal debt service treatment from all other bilateral creditors in line with the agreed-upon term sheet.

NEXT STEPS

The pandemic challenge has further aggravated Yemen's economic and social stabilization challenges through its impacts on public spending, public revenues, and inflation/exchange rate pressures. ERLP has worked closely with the CBY and MOF to develop a detailed list of programmatic monetary and fiscal response policies. These have prominently included (1) the development of a monetary plan with well-defined targets aimed at containing inflation below 20 percent; (2) the initiation of a comprehensive framework for the CBY to regulate market interventions and pursue FX placement/allocation activities using a competitive and transparent auctioning system, to control foreign exchange fluctuations and prevent further devaluation of the Yemeni rial; and (3) Consolidating data reporting practices within the financial sector.

It has also included a fiscal containment plan to design a meaningful pandemic-response component within the annual budget. ERLP is also helping to improve sectoral budget planning processes at MOF, based on optimal budget prioritization criteria, with an initial focus on the health care sector. This, in turn, includes a focus on more improving the magnitude and efficient targeting of public resources allocated to healthcare services, including for COVID treatment and prevention activities.

The plan also involves: (1) reforming the tax administration system to improve tax collection rates and non-oil-based revenues more generally; and (2) exploring new sources of public revenues in the natural resource sector, including the fisheries industry. The goal of these initiatives is to increase revenues to contain the budget deficit, which had escalated due to the pandemic crisis.

Looking ahead, it will be very important for both CBY and MOF to undertake the further needed policy analysis and policy/regulatory response measures required to elaborate fully and effectively implement a well-targeted and coordinated pandemic response strategy. This, in turn, will help promote enhanced macroeconomic stability and societal welfare; and demonstrate to the Yemeni public both the commitment and the capacity of key public sector institutions to effectively manage and mitigate the destabilizing consequences of the crisis.

1.1.6 ANTI-MONEY LAUNDERING/COUNTER FINANCING OF TERRORISM (AML/CFT)

BACKGROUND

In the five years immediately following its MENA FATF evaluation in 2008, Yemen took steps to improve its AML/CFT legal and regulatory regime. Nevertheless, there are still substantial deficiencies with that regime, as a number of elements remain inconsistent with FATF standards. As pointed out by the IMF in its 2018 CBY Diagnostic, there are serious weaknesses at the institutional-operational level with its implementation. The weaknesses arise from the under-developed institutional arrangements within the CBY and the Financial Intelligence Unit (FIU); the lack of trained AML/CFT personnel; the insufficient level of guidance, monitoring, and enforcement by the CBY and the FIU; and the resulting infrequent and perfunctory compliance by banks and financial institutions (FIs).

In addition, there is a general lack of understanding at the CBY and the FIU with respect to Yemen's AML/CFT legal/regulatory regime, the nature of AML/CFT risks, and the types of processes and interventions that should be applied to identify and mitigate those risks. Consequently, the required human capacity, operational policies, and processes are largely absent, causing significant deficiencies in implementing basic AML/CFT requirements. Moreover, there are no effective policies and mechanisms in place to facilitate cooperation among AML/CFT policymakers, the CBY, the FIU, and law enforcement.

QUARTERLY WORK ACTIVITIES AND DELIVERABLES

In response to the critical policy/regulatory and institutional deficiencies referenced above, ERLP's AML/CFT advisor has successfully worked with the CBY's Bank Supervision Department (BSD) and the FIU on achieving important reforms to Yemen's AML/CFT regime and institutions. The following summarizes ERLP's activities and achievements during the quarter.

Table 11: Q2 AML/CFT Activities and Deliverables

Activity	Deliverables
Assist BSD roll out model internal compliance procedures to banks/FIs.	1. Model internal compliance procedures rolled out to banks/FIs. 2. On-site AML/CFT Inspection Manual Developed, 3. BSD staff trained on circulars and on-site inspection manual. 4. STR processing manual for FIU developed. 5. FIU personnel trained on STR processing manual. 6. CBY and FIU adopt a protocol on AML/CFT cooperation. 7. BSD establishes a procedure for timely informing banks/FIs of updates to international sanctions.
Assist BSD in developing on-site AML/CFT Inspection Manual for field personnel.	
Train BSD personnel on the revised circulars and Onsite Inspection Manual.	
Develop FIU manual on procedures for processing STRs submitted by banks/FIs.	
Train FIU personnel on STR manual.	
Assist CBY and FIU in developing and adopting a protocol on AML/CFT cooperation.	
Assist BSD in establishing procedures for timely informing banks/FIs of updates to international sanctions.	

I. CBY AGREES TO SUBMIT REGULATORY AMENDMENTS TO THE NATIONAL AML/CFT COMMITTEE

ERLP's AML/CFT team and the CBY agreed on the text of the amendments needed to bring Yemen's AML/CFT regulations into greater conformity with MENA FATF standards. The CBY has asked ERLP to prepare a white paper on the amendments, which the CBY will submit to Yemen's National Committee on AML/CFT for adoption at its next meeting, which is expected in the next several months. The advisor will prepare the white paper early in the next quarter.

II. CBY ISSUES TWO AML/CFT CIRCULARS

While the regulatory amendments require the action of the National Committee, during the reporting quarter, the CBY, the Head of the FIU, and ERLP's AML/CFT team agreed that the CBY could implement other improvements to Yemen's AML/CFT regime via circular. With the assistance of ERLP's AML/CFT advisory specialists, the CBY developed and issued two circulars dealing with AML/CFT matters. The first circular requires banks and other financial institutions (FIs) to implement measures for adopting a risk-based approach consistent with international standards to classify clients according to three types of risks. The circular sets detailed standards for identifying and verifying the right beneficial owner of legal companies. Moreover, this circular also included instructions that limit the possibility of using the bearer shares in money laundering activities and financing terrorism. Finally, this circular requires concerned entities to carry out measures for mitigating the threat of cybercrimes that they or their customers may be exposed to.

The second circular specifies the indicators that banks and FI's must use to identify potential money laundering or terrorist financing operations related to the crimes of sexual exploitation, human trafficking, and migrant smuggling.

(See "*Macro – Annex 14 – AML Revised Circulars*")

III. BSD DEVELOPS AND ROLLS OUT MODEL INTERNAL COMPLIANCE PROCEDURES FOR BANKS/FIS

ERLP's AML/CFT advisory team assisted the BSD in developing model risk-based internal compliance procedures for banks and other FIs, which the BSD then issued. Each bank and FI must develop and adopt its own AML/CFT compliance manual and incorporate these procedures into that manual. This will ensure that banks and FIs comply with their obligations under the AML/CFT Law and regulations by establishing internal control measures to deter criminals from using a business for money laundering.

The Head of FIU noted that the model procedures are highly important for banks and FIs because they are required by the AML/CFT regulations to put in place an AML/CFT compliance program aimed at detecting and preventing money laundering and terrorist financing activities.

IV. BSD DEVELOPS ONSITE AML/CFT INSPECTION MANUAL FOR FIELD PERSONNEL

ERLP assisted the BSD in developing an Onsite AML/CFT Inspection Manual for its field inspectors. The onsite inspection manual is expected to be adopted early in the next quarter.

Onsite AML/CFT inspection aims to provide an in-depth analysis of the various AML/CFT-related risks, risk-based approach (RBA) internal control systems, business models, and governance of supervised entities. Such inspections are conducted within a predefined scope and timeframe at the premises of the supervised entity.

The manual aims to ensure that BSD's and FIU's field inspectors examine and assess the appropriateness and quality of each supervised entity's AML/CFT management processes, corporate governance, and internal control framework in the light of the nature of its business and risks, focusing - in particular - on detecting weaknesses and vulnerabilities.

(See "*Macro – Annex 15 - AML-CFT Inspection Manual*")

V. FIU DEVELOPS AND ADOPTS MANUAL ON PROCEDURES FOR PROCESSING STRS

Pursuant to the AML/CFT law, all reporting entities are required to file a Suspicious Transaction Report (STR) with the FIU on any complex, unusual, or large business transaction; any unusual pattern of transactions (whether completed or not); and any insignificant but periodic transactions that have no apparent economic or lawful purpose.

In this regard, ERLP assisted the FIU in developing an STR processing manual that provides the methodology to be used by FIU personnel when analyzing STRs. The manual was adopted by the FIU and included in its internal procedures. The ERLP AML/CFT advisory team then provided on-job training on the STR processing manual to FIU personnel.

VI. CBY AND FIU DEVELOP AND ADOPT PROTOCOL ON AML/CFT COOPERATION

The BSD and the FIU have joint powers and authorities to carry out supervision over-reporting entities and to combat money laundering and terrorist financing. Until recently, the cooperation between the BSD and the FIU on these matters was based on verbal understandings. There was no official written document specifying the terms governing their cooperation.

During the reporting quarter, the ERLP AML/CFT experts discussed the need for a more formal written understanding with the BSD and the FIU. ERLP then helped draft a Memorandum of Understanding (MOU) for review by the FIU and BSD. After several working meetings, the MoU was adopted by both the BSD and FIU.

The MOU clarifies the roles of each agency and lays out the terms of their cooperation in a manner that takes advantage of synergies in their efforts to combat money laundering and terrorist financing. It establishes mechanisms to facilitate the exchange of financial intelligence and information related to money laundering, terrorism financing, and related crimes. It also rationalizes the relationship between the BSD and the FIU, especially in terms of determining the powers and scope of work of each with respect to control, supervision, and inspection of the compliance of supervised entities with the AML/CFT Law and regulations.

(See "*Macro – Annex 16 - BSD-FIU MOU*")

VII. BSD ESTABLISHES PROCEDURES FOR TIMELY INFORMING BANKS/FIS OF UPDATES TO INTERNATIONAL SANCTIONS

To ensure international sanctions are enforced, supervised entities are required by law to consult and observe international sanctions lists when conducting business. Failure to do so exposes an institution to severe civil and criminal penalties. Therefore, every supervised entity should ensure that international sanctions lists are integrated with its internal systems and controls for detecting and reporting financial crimes.

ERLP supported BSD efforts to develop a set of instructions specifying the procedures that BSD staff must follow to ensure supervised entities are timely informed of all updates to international sanctions lists. After several meetings where the instructions were reviewed and adjusted, they were formally adopted by the BSD. ERLP then trained the unit's field inspectors on the instructions and the importance of ensuring that all supervised entities integrate up-to-date international sanctions lists into their internal systems.

(See "*Macro – Annex 17 - AML Procedures for International Sanctions*")

1.1.7 BANKING SUPERVISION AND RISK MANAGEMENT REFORM

BACKGROUND

With USAID support in 2020, Pragma delivered an in-depth gap analysis of on-site and off-site supervision and related risk-management, regulatory, procedural, and institutional shortfalls. Detailed, time-framed regulatory, procedural, and organizational restructuring recommendations were developed to facilitate best-practice policy, procedural, and related analytical framework reforms.

During the second quarter, ERLP targeted identified deficiencies by focusing on enhancing the safety and soundness of the financial regulatory framework and the monitoring and compliance system. In this regard, the project completed a comprehensive reorganization of the BSD to include a new organizational structure and upgraded staffing and training. CAMELS-compliant on and off-site examination and financial reporting requirements were instituted to promote the sound financial performance of commercial finance institutions. This approach emphasizes basic compliance with core capitalization, liquidity, asset balance/integrity, and earnings norms.

In risk management, targeted technical assistance was provided to further the adoption and initial implementation of targeted action plan recommendations. The action plan advocated establishing an internal control and risk management regulatory framework and oversight system within the BSD and at a CBY-wide level.

USAID-supported assistance has enhanced the governance framework for IT risk management in the banking and finance sphere and initiated improvements in CBY's overall capacity to measure and control risks across major functional areas of activity. This has helped effectively address the core regulatory and institutional constraints limiting improvements in the financial and management.

ERLP also drafted comprehensive guidelines for bank crisis management and risk parameter analysis, risk-management regulatory and procedural guidelines, and IT-related regulatory guidelines/procedures. It has, in addition, developed an action plan for establishing a risk management function in CBY and prepared training material covering IT risk supervision. The project also implemented action-plan recommendations for an internal control and risk management regulatory framework/oversight system both within the BSD and across the CBY.

QUARTERLY WORK ACTIVITIES AND DELIVERABLES

During the reporting period, ERLP achieved significant results in enhancing the safety and soundness of the financial regulatory framework and monitoring/compliance system. Better-practice-compliant on and off-site supervision manuals were developed, revised, and approved, while targeted training on CAMELS-compliant supervisory oversight techniques for bank supervision staff was delivered. There was also agreement with CBY on the structural reorganization approach needed to enhance the quality and integration of on- and off-site supervisory oversight functions.

Table 12: Banking and Supervision Q2 Activities and Deliverables

Activity	Deliverables
Support the conduct of 2 additional on-site inspections of commercial, financial institutions, and provide related on-the-job training to relevant bank supervision staff.	1. Two additional on-site inspections of commercial finance institutions were successfully conducted.
Develop a risk-based inspection plan, which establishes the prospective frequency of each bank inspection action, based on the results of prior inspections and cogent analysis of major risk factors.	2. A risk-based bank inspection plan drafted/circulated.
Provide structured online training course for relevant CBY staff on on-site supervision/inspection principles and procedures.	3. A structured online training course for relevant CBY staff on on-site supervision/inspection principles and procedures conducted (at least two sessions).
Develop a detailed action plan to establish a sound regulatory oversight system and sub-unit for Exchange House/Hawala institutions.	4. A detailed action plan for establishing a sound regulatory oversight system and sub-unit for Exchange House/Hawala

<table>
<tr><th>Activity</th><th>Deliverables</th></tr>
<tr><td>Facilitate approval and initial implementation of oversight guidelines/procedures for bank crisis management analysis and related risk analysis parameters.</td><td rowspan="7">institutions was comprehensively drafted/circulated.
5. Detailed oversight guidelines/procedures for bank crisis management analysis and related risk analysis parameters finalized/approved. (On a best-efforts basis)
6. The report provided an effective application of updated off-site financial analysis guidelines across all licensed banking institutions.
7. Better practice-compliant risk management regulatory/procedural framework finalized/adopted. (On a best-efforts basis)
8. Better practice-compliant risk-management rules and regulations are adopted.
9. Additional targeted training provided (minimum 4-6 sessions) on Bank Supervision IT Risk concepts, IT Audit, e-Channels, Cybersecurity, GRC (Governance, Risk Management, and Compliance), Continuous Auditing and Monitoring, and COBIT 2019.
10. A CBY-wide risk management committee was established. (On a best-efforts basis)</td></tr>
<tr><td>Deliver additional on-the-job training on off-site analysis procedures/techniques to be followed in off-site financial analysis exercises to relevant supervision department staff.</td></tr>
<tr><td>Apply updated off-site financial analysis approach across all licensed banking institutions.</td></tr>
<tr><td>Facilitate approval of a detailed risk management regulatory/procedural framework that outlines rules, standards, and strategies for the definition, assessment, and management of financial risks.</td></tr>
<tr><td>Providing additional capacity-building training on Bank Supervision IT Risk concepts, IT Audit, e-Channels, Cybersecurity, GRC Continuous Auditing and Monitoring, and COBIT 2019.</td></tr>
<tr><td>Facilitate adoption of better practice-compliant rules and regulations covering the following areas: information security management, business continuity management, cybersecurity & resilience, electronic banking & services, Automated Teller Machines</td></tr>
<tr><td>Facilitate review/approval of action plan and related regulatory/operational guidelines to establish a CBY-wide risk management committee.</td></tr>
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I. APPROVED BETTER PRACTICE-COMPLIANT ON AND OFF-SITE SUPERVISION MANUALS

The Bank Supervision Gap Analysis conducted in early 2020 underscored that the 2008 CAMELS manual used by the CBY had several shortcomings: rendering it inadequate for purposes of addressing many of the challenges facing the county's banking industry. In particular, this manual did not effectively address numerous key banking concepts required to establish efficient oversight standards and practices.

ERLP developed new on and off-site CAMELS-based supervision manuals and successfully advocated for their approval by the CBY. The on-site guide includes instructions for preparing for the inspection mission in advance and a description of the procedures governing the inspection process. It outlines the steps necessary to perform classifications according to the CAMELS rating system and prepare the inspection report for transmission to the bank.

The off-site manual provides guidelines and procedures that facilitate effective identification and measurement of the core indicators of banking soundness. According to the CAMELS methodology, this approach classifies banks and identifies which banks require special attention and would benefit from intensified supervisory review and follow-up activities. *(See "Macro – Annex 18 - Updated Offsite Supervision Manual")*

ERLP effectively advocated for approval and adoption of the manuals, overcoming initial reluctance in this regard. Pragma/ERLP experts provided presentations to and dialogued with senior managerial and technical leadership of BSD regarding major areas of anticipated supervision and risk management regulatory/procedural and institutional reform during a series of detailed meetings in late 2020 and early 2021. The manualized materials were subsequently approved in early spring 2021. The CAMELS-based approach to off-site supervision and on-site inspection will provide officials with the guidance required to perform their supervisory function in accordance with best-practice standards.

ERLP conducted several introductory workshops on applying the content of these manuals to day-to-day supervision operations for key BSD staff. They were further introduced to the first component of the off-site supervision risk analysis, the supervisory matrix. The matrix uses CAMELS-based prudential standards to establish the level of risk an institution possesses. This analysis will provide the CBY with a risk rating for each institution and provide a risk ranking of banks, facilitating efficient on-site inspection planning processes moving ahead.

II. AGREEMENT ON A NEW ORGANIZATIONAL STRUCTURE FOR FINANCIAL SECTOR SUPERVISION WHICH ENHANCES THE QUALITY AND INTEGRATION OF ON AND OFF-SITE SUPERVISORY OVERSIGHT FUNCTIONS

The pre-existing organizational structure for financial supervision at the CBY needed to be streamlined for better practice compliance, efficient workflows, and shorter work cycles. It also appeared essential to promote structural reforms designed to ensure that the structure had sufficient capacity to oversee both off-site and on-site supervision of banking and non-bank financial institutions, given the latter's importance in the country's financial system.

In late 2020, ERLP developed a detailed Implementation Plan laying out a new organizational structure for financial sector supervision. It provided an assessment of the existing BSD organization and outlined a target structure in line with international best practices. The Plan was submitted to the CBY and is pending approval, which is anticipated by Q3.

The Plan is actionable in five distinctive phases, with short, medium, and long-term objectives to guide CBY's progress toward the targeted organizational structure. Targeted reforms are based on the priority regulatory and institutional strengthening measures needed to augment supervisory capacity at CBY. These, in turn, incorporate core internationally recognized supervisory pillars, including Basel III and IFRS9.

The Implementation Plan addresses key identified deficiencies, such as the urgent need for a fully developed oversight function for the non-bank financial sector -- especially for foreign exchange companies and agents. Close CBY oversight of these companies will provide much-needed data on FX market transaction volumes and prices in a highly volatile financial sector environment. The plan also provides critical guidance related to updating relevant financial reporting and performance regulations and monitoring/enforcement guidelines and tools used for financial supervision and recruiting/upskilling personnel to overcome understaffing issues being faced in the Financial Supervision Department

The proposed organizational structure aims to strengthen and facilitate more rigorous financial reporting and compliance assessment supervisory oversight processes; speed up decision-making; and align CBY supervision with Basel requirements while ensuring:

- That the BSD has a clear and up-to-date market, financial sector, and individual commercial bank performance information to support efficient decision-making in a manner that helps safeguard national financial stability.
- That all BSD staff are provided with specialized capacity-building programs commensurate with job description requirements. This should allow them to effectively analyze and review financial

and operational compliance reports and develop the related response strategies and action plans.

- That a clear set of responsibilities is defined across all supervision activities, departments, subdivisions, and operational units, based on sound regulatory guidelines. This will ensure that the BSD can implement policies and measures promoting the safety and soundness of Yemen's financial system and take needed corrective actions in a timely manner.
- That redundant and duplicative functions and tasks within the overall workflow structure are identified and eliminated.

ERLP has also recommended that the CBY establish an IT Risk Supervisory Unit, in line with Basel guidelines, to combat money laundering and encourage compliance with CBY regulations. The key roles of this unit would encompass the following:

- Develop methods for the periodic analysis of bank IT operations, bank IT environments, and e-Banking services.
- Assess the IT ecosystem in the financial sector in relation to best practice requirements and provide the banks with related performance and reporting standards.
- Verify bank compliance with the CBY's IT performance and reporting standards and their related examination requirements.
- Ensure that protocols implemented by banks and non-banking FIs are in line with applicable laws, regulations, and instructions provided by the CBY.

In addition, ERLP recommended that after the five main phases of the Implementation Plan have been completed, the CBY should set up a Macro-prudential Surveillance Unit. This unit would report directly to the Deputy Governor and interface with the Financial Supervision Unit. It would fulfill CBY's objective of strengthening its ability to safeguard national financial stability. The new unit will produce monthly risk reports (delivered to the senior management of the CBY, and analytical reports (containing information on the corporate and financial sector in general and the FX market specifically). It would also be responsible for other ad-hoc macroeconomic and financial assessment reports as needed by senior decision-makers. In the medium to long term, the unit should evolve to conduct stress-testing simulations and produce periodic financial stability reports.

The new proposed structure implies a widening the scope of the existing 'Banking Supervision Sector' through the establishment of a more broadly focused 'Financial Supervision Department,' which would include the following Divisions and Units.

1. Banking Supervision Division
2. Non-Bank Financial Institutions Supervision Division (covering exchange companies, payment companies, and FinTech)
3. Anti-Money Laundering and Counter-Terrorism Financing (AML/CFT) Unit
4. Information Technology (IT) Risk Supervisory Unit

As an integral part of defining the organizational structure, a detailed set of Job Descriptions (JDs) for all Supervision Department positions has been developed. The JDs were drafted for each job family and job role across the proposed financial sector supervision structure.

III. INTENSIVE TRAINING IN CAMELS-COMPLIANT SUPERVISORY OVERSIGHT TECHNIQUES FOR BANK SUPERVISION STAFF

ERLP facilitated a series of structured online training courses covering off-site supervision and on-site inspection processes; to improve the capacity of the CBY/BSD staff to assess compliance conditions at licensed financial institutions and to prepare staff to perform core supervisory tasks effectively. In this regard, eight separate structured training sessions were conducted in March for ten key BSD staff. These training activities helped build institutional momentum for the implementation of core operational reforms. Sessions included a review of the off-site supervision manual based on CAMELS principles, the analysis of prudential standards, and the introduction of risk-based ratings through the use of a detailed supervisory matrix. BSD staff also attended workshops on analysis of prudential standard results and risk rating methodology.

The off-site department participated in an actual assessment review of one bank. This entailed gathering relevant financial information and completing the Supervisory Matrix. The results were then reviewed by ERLP and have been incorporated for future use in an anticipated simulation inspection for the on-site inspection group.

IV. INITIAL PROGRESS ON UPDATING FINANCIAL PERFORMANCE DATA THROUGH CY2020

ERLP also developed and delivered a report on the practical application of updated off-site financial analysis guidelines across all licensed banking institutions: "Off-Site Supervision Techniques for Financial Analysis of Bank Data & Bank Financial Prudential Indicators," which was submitted to CBY leadership in early 2021. The report and its applications will help effectively guide the CBY in establishing which financial institutions will most urgently need to be analyzed moving ahead. The related banking safety indicators will be extracted, examined, and used as early warning indicators, which assist the supervisory authority in establishing the magnitude of a given bank's need for additional oversight.

ERLP's targeted technical assistance efforts helped promote a greater understanding of and enthusiasm for effective prioritization of relevant financial strength indicators, financial ratio analysis, and provision of enhanced risk assessment and early warning signal analysis activities. In this regard, technical/training support activities focused in-depth on building capacity to understand/apply essential financial ratios and related performance indicators for each bank and how to compare them against the same ratios over the previous five years (to help CBY better analyze observable trends and assess improvement or decline in a given bank's performance). Training support activities also helped BSD staff enhance their capacity to compare ratios and financial indicators for each bank with its peer group and contrast those results against ratio results for the entire banking system. These analytical practices will best position the Off-Site Supervision Department to promptly determine if any bank's security and safety may be under threat. These skill transfer processes have enhanced CBY's capacity to undertake continuous daily off-site supervision of bank activities. Regular analysis of periodic financial statements, and the extraction of banking safety indicators, provide an early warning for the supervisory authority about the extent of a bank's need for more supervision.

The Off-Site Department staff are keen to analyze financial institutions further, using practical ERLP-developed analytical tools, including the risk analysis matrix. The next immediate steps for the Off-Site Supervision Department officials should include securing financial data for eight consecutive quarters from selected banks and inputting this information within the relevant sections of the Matrix. This exercise will provide CBY officials with an effective opportunity to assess selected bank results against prescribed prudential standard ratio thresholds and subsequently articulate detailed ameliorative action plans for follow-up by the on-site department.

V. RENEWAL OF INTENSIVE ON-SITE INSPECTIONS

Under the aegis of the USAID support activity, ERLP was able to initiate two on-site inspections of commercial financial institutions in CY2021. In this regard, ERLP coordinated with BSD on its annual work plan; and provided detailed information/guidance on the on-site inspection approach and procedures required. A review of past BSD working papers and inspection report findings was further undertaken, and detailed discussions were held regarding how best to improve the documentation of inspection evidence. This included detailed guidance on the introduction of a comprehensive file indexing system.

ERLP experts also met with National Bank of Yemen senior management to discuss the supervisory function and oversight/monitoring activities currently being developed at BSD; and the importance for the commercial banks of effectively coordinating with BSD on CAMELS-related on-site inspection processes. The National Bank team appeared eager to collaborate and agreed to act as a pilot institution for this critically important work.

While an on-site inspection had initially been scheduled during the period, it was not possible to conduct this exercise as a result of the winter uptick in COVID incidence. Instead, a detailed plan was prepared for undertaking a simulation inspection exercise. Subsequently, the ERLP team prepared appropriate planning documents and established the scope of the exercise; based on information secured from the previous inspection, information gathered from various sources, and data received from the off-site supervision department. Appropriate engagement letters were issued, and the team was selected and briefed on the level of revue planned and the significant activities that would need to be reviewed.

Finally, a set of working papers were prepared and distributed amongst the inspection team for their execution. This also included a supervisory risk matrix review. It is anticipated that the on-site inspection program will revert to actual physical inspections during Q3 and Q4 after the current restrictions are lifted.

RISK MANAGEMENT

The protection provided by a central bank's risk management framework is one of the crucial elements contributing to its credibility. This consideration, along with the principles of prudence and transparency required for all public institutions entrusted with the management of public funds, calls for establishing risk management frameworks and the highest governance standards at the CBY.

Risks taken in central banking activities need to be analyzed and managed in an all-inclusive manner, considering the interaction of the CBY's different activities and operations. For that purpose, a state-of-the-art comprehensive risk monitoring and reporting framework is required, capable of providing CBY decision-making bodies with appropriate risk management input. As a key element of the risk management function at CBY, the highest governance standards need to be observed, both in terms of the reporting lines and organization of the risk management function.

I. THE ESTABLISHMENT OF A CBY-WIDE RISK MANAGEMENT FUNCTION

To address the many financial reporting/performance challenges facing Yemen's financial sector, it is essential to establish a comprehensive and better-practice-complaint Risk Management function within the CBY; housed within a dedicated Risk Management Department. ERLP has in this regard developed and submitted an Action Plan for the establishment of this CBY-wide risk management function. The Action Plan developed by ERLP outlines the development of a holistic, organization-wide, risk-management function spearheaded by the new department. A new, separate Risk Management Committee would also provide board-level oversight. The new department would report directly to the board and interact with all other functional departments within the CBY.

The work of this new department would include the ongoing determination of the CBY's acceptable risk appetite. The new department will also facilitate the development of a risk-aware and proactive risk-management culture at the CBY. It will aim to achieve this goal by leading targeted training and awareness courses and facilitating the establishment of institutional linkages with third-party organizations (e.g., other regional central banks) that can exchange practical expertise and knowledge regarding sound risk management strategy & parameters.

The department will flag practices throughout CBY that may pose a risk to the bank's core mandate of guarding monetary and financial stability. When deficiencies are detected, the department will propose corrective measures and, if necessary, changes to specific work processes or flows. It will then follow up to make sure that critical recommendations have been put into practice. If a risk materializes, the department will be capable of practical damage control/mitigation operations.

A separate key function within any Central Bank is that of its risk management committee. Currently, the CBY lacks such a committee and the in-house expertise to build and sustain one. By working together, the CBY and ERLP identified this as a key requirement for the onward development of the CBY and have, together, taken steps to begin to fulfill this requirement.

In this regard, ERLP has formally proposed establishing the CBY Risk Management Committee and set out the scope, role, responsibilities, and initial plan for its establishment. This plan articulated the key activities required for this initiative. It also established related indicative timeframes, phased by quarter, over the next two years. A more detailed implementation plan, with finer granularity, is expected to be produced in conjunction with CBY staff once the CBY Board provides final approval of the concept. CBY's senior management is highly supportive of the proposal, and the initiative was recently presented to the CBY Board of Directors, where it was well-received.

The head of the Risk Management Department would be the Chief Risk Officer (CRO), who should report directly to the governor (administratively) and the Board (functionally) through the Risk Management Committee. The Committee itself functions as a sub-committee to the Board of Directors and should include the CRO and at least two independent non-executive directors of the CBY board. The committee would be expected to meet with the same frequency as the Board of Directors but in advance of board meetings. This, in turn, would allow it to effectively prepare its briefing materials and necessary approvals for matters to be raised at Board Meetings. The committee could also, as the case may arise, invite subject matter experts to give testimony. Formal minutes of all meetings would be strictly maintained.

To facilitate the establishment of a fully functional Risk Management Committee and Department, ERLP began training sessions for both the CBY Board and the Committee's staff on all facets of the risk management framework. It is anticipated that the CBY-wide Risk Management Committee will be approved by the CBY Board and its formal establishment initiated by summer 2021.

II. A RISK-BASED BANK INSPECTION PLAN

The BSD was presented with the above-referenced CAMELS-based on-site inspection manual, which has been accepted (with the understanding that it will continue to evolve on an as-needed basis to incorporate additional components related to risk-based banking inspection). The BSD also conducted an inspection simulation, again owing to the COVID-19 lockdown restrictions, which included a risk-based inspection plan and drafting an inspection scope. With the implementation of an off-site supervision matrix, the BSD will be able to establish several additional risk components to be incorporated within the scoping process for future physical on-site inspections as well.

III. BETTER PRACTICE-COMPLIANT RISK MANAGEMENT REGULATORY/PROCEDURAL FRAMEWORK

The CBY strongly recognizes the need to develop and strengthen its in-house skills in Financial Risk Management (FRM). To address this requirement, ERLP has prepared a set of FRM guidelines in Arabic and English. These were based on international best practice standards and provided guidance to both the CBY and Yemen's payments industry participants. The guidelines describe the four major types of financial risk: credit, market, operational, and liquidity. The principles required to manage these types of risk have been set out and related core principles of sound FRM governance. After the FRM guidelines had been shared with the CBY, ERLP conducted a related in-depth workshop in English, with simultaneous translation into Arabic, to review appropriate identification assessment, mitigation, and monitoring standards for fundamental risk factors. This appeared to have been very well-received by CBY officials.

IV. A DETAILED ACTION PLAN FOR THE ESTABLISHMENT OF A SOUND REGULATORY OVERSIGHT SYSTEM AND SUB-UNIT FOR EXCHANGE HOUSE/HAWALA INSTITUTIONS

Initial discussions were held with officials from the exchange house/hawala institutions on how best to approach this sector's oversight. Additional data will be provided by the CBY to complement the information already received. This will provide the basis for establishing the best approach in dealing with the current licensed institutions. More importantly, it will determine how to integrate a large number of unlicensed operators within the licensing and regulatory environment of the CBY. Internal discussions were held with the CBY to understand the subject matter better, which will result in formatting an action plan to adequately respond to the current lack of activity in this sector's oversight, and ERLP will develop an executable action plan by Q3 that will provide a targeted direction for this complex issue.

The internal CBY unit tasked with establishing CBY's RM functions is expected to complete its internal review in the near term and obtain board approval for the guidelines during Q3 (to be followed by their publication).

V. BETTER PRACTICE-COMPLIANT RISK-MANAGEMENT RULES AND REGULATIONS

ERLP has developed and made progress toward the adoption of better practice-compliant risk-management rules and regulations. These cover the following areas: information security management, business continuity management, cybersecurity and resilience, electronic banking and services, automated teller machines (ATM), and their security controls, card payment systems, and minimum authentication and security controls.

Currently, the CBY and the payments industry in Yemen generally lack adequate experience and knowledge regarding the latest developments in electronic payments. In this regard, the political-economy situation in the country, and the COVID-19 crisis, have made it difficult for payment institutions to expand their functional capabilities in the current institutional environment robustly.

To remedy this issue, ERLP produced a series of guidelines, in Arabic and English, that presented international best-practice standards in the following areas: Financial Risk Management, Cyber Security, Event Reporting, Business Continuity Planning, ATM installation/Security, Crisis Management, and Card Payments Security. These guidelines have been delivered to the CBY and reviewed individually with them, facilitating the transfer of knowledge to CBY staff in an appropriately measured manner.

It is expected that these guidelines will be issued and put into practice during the next quarter; in a manner that can help expand understanding of and facilitate compliance with better practice risk management processes in these important areas by commercial banks and payment service providers (PSPs). Banks, PSPs, and the CBY will have a reasonable amount of time to adopt the guidelines into their normal operating procedures and appropriately build up their staff capabilities. The CBY has found this exercise to be highly beneficial from an informational outreach perspective, both for themselves and for the market, and has begun gradual publication of the guidelines, starting with the Business Continuity Planning guidelines. Further implementing guidelines in this series are expected to be published throughout the third quarter.

VI. DETAILED OVERSIGHT GUIDELINES/PROCEDURES FOR BANK CRISIS MANAGEMENT ANALYSIS AND RELATED RISK ANALYSIS PARAMETERS

ERLP experts have worked in-depth with CBY officials on the development of Bank Crisis Management Oversight Guidelines; and agreed that the regulatory guidance materials developed by ERLP establish the foundational basis for a sound risk management program for CBY. This should help provide the data required to establish sound risk ratings for all banks. This, in turn, will help CBY develop targeted information on trigger factors and related parameters for the establishment and implementation of direct bank intervention and (where/when required) bank resolution programs.

The Off-Site Supervision Department's current application of a basic supervisory risk matrix is the first step in creating a detailed approach to assessing the banking sector's overall risk. This approach will eventually lead to a more advanced set of matrices that will demonstrate the overall level and direction of risk and the quality of risk management measures. Implementing these elements will enhance the CBY oversight regime's capacity to adequately assess each bank and provide information to support necessary corrective actions.

VII. ADDITIONAL TARGETED TRAINING PROVIDED (MINIMUM 4-6 SESSIONS) ON BANK SUPERVISION IT RISK CONCEPTS: IT AUDIT, E-CHANNELS, CYBERSECURITY, GRC (GOVERNANCE, RISK MANAGEMENT, AND COMPLIANCE), CONTINUOUS AUDITING/ MONITORING, AND COBIT 2019

The CBY is currently facing critical IT risk management oversight challenges emanating from the lack of experience among current staff. ERLP has responded through the delivery of focused workshops covering a range of key IT risk management issues. These are shown in the table below:

Table 13: Introductory Workshops for CBY

Day	Date	Topic	Audience
Monday	22-Mar-21	IT Risk Concepts	Banking Inspection and IT
Wednesday	24-Mar-21	IT Audit and Monitoring	Banking Inspection and IT
Thursday	25-Mar-21	COBIT 2019: Control Objectives for Information Technology	Banking Inspection and IT
Sunday	28-Mar-21	Cybersecurity	Banking Inspection and IT

These workshops were delivered remotely because of the ongoing COVID-19 restrictions. This, however, did not dilute their impact and effectiveness. Each workshop was delivered in English with simultaneous translation into Arabic. Time was allowed during each workshop for detailed questions, and the interest and engagement of the audiences appeared to be consistently high. After each workshop, the bi-lingual slides were provided to the CBY for their ongoing reference. Since completing these sessions, staff have demonstrated a significantly improved understanding of the core topics covered.

NEXT STEPS

Looking ahead, it will be critically important that BSD continues to progress towards full-scale reorganization and that it fully and effectively implements the new CAMELS-compliant on and off-site manuals and related procedural guidelines that it has adopted. It is also critical that systematic on-site inspections be undertaken. It is also extremely important that off-site bank performance information be updated and brought current across all banks; and that utilization of the supervisory risk matrix progress be fully institutionalized. Moreover, it will prove important to build further momentum on extending the supervisory reporting/oversight system to include non-bank financial institutions.

Moreover, by summer 2021, it is expected that CBY will review, approve and publish the following additional policies and procedures materials: Risk Management Framework (Game Plan and Action Plan), Operational Risk Management Policy, Financial Risk Management Policy, Risk Register template (including risk scenarios analysis, risk assessment scale, a business model for risk articulation and key risk indicators) and Incident Handling Procedures.

1.2 IMPROVED FISCAL POLICY DEVELOPMENT AND IMPLEMENTATION

Over the second quarter, ERLP experts conducted regular consultations with senior leads from the Ministry of Finance (MOF), the Ministry of Petroleum (MOP), and the Tax Administration Authority to collect the necessary data and conduct the relevant analysis for petroleum and non-petroleum revenue forecasting. The team also conducted weekly consultations with five working groups, including members from MOF, the Ministry of Planning and International Cooperation (MOPIC), the Ministry of Health (MOH), and the Ministry of Education (MOE), to estimate the government expenditures for CY2021.

These consultations enabled the ERLP team to finalize the detailed CY2021 budget projections presented to MOF senior staff during face-to-face meetings conducted in Cairo in early April. The team also performed sensitivity analysis projecting variation in budget deficit based on changes in macroeconomic conditions and/or the exchange rate.

In the area of budget planning, ERLP experts developed a core set of regulatory/operational guidelines for establishing a better practice compliant budgetary policy/procedural framework, which will be used for the preparation of the CY2022 budget. Moreover, the team drafted a GFS-compliant budget coding manual and assessed the budget expenditures for activities initiated by the government in response to COVID-19 (summarized in Section 1.1.5 of this report) and developed a fiscal, programmatic response strategy addressing the impact of the pandemic crisis on the economy.

Within the scope of budget execution, the project activities focused on developing the basic skills of the relevant MOF staff and initiating operations of the Joint Committee for the Management of the Treasury (JCMT), which is a core and fundamental target in the Budget Execution Action Plan developed by ERLP in Q1. In relation to these activities, the team also drafted a report on the technical requirements for effectively interlinking current CBY treasury operations to the General Administration for the Management of the Public Account (GAMPA) at MOF and developed a comprehensive set of regulatory/operational guidelines to improve budgetary allotment, commitment control, and payment authorization processes in Yemen.

Regarding debt management, ERLP experts built on previous work conducted in Q1 and developed a comprehensive structure for the joint committee on debt management, which has been designed and initiated by ERLP. The structure has been discussed with and jointly approved by MOF, MOPIC, and CBY senior management. The team also resumed discussions with the UNCTAD on the reactivation of DMFAS and assessed the possibility of acquiring an alternative debt management database, Commonwealth Debt Management & Reporting System (CDMRS), which may be accessible to the CBY at a lower cost. Moreover, the team expanded the debt management database that was designed by ERLP in Q1, covering all available information on outstanding loans, which has been obtained through different sources, including lenders.

In the area of revenue estimation and tax policy analysis, ERLP experts completed a further ‘deep-dive’ diagnostic of the tax policy framework in Yemen during Q2, following work on initial analysis conducted during Q1. The team focused on evaluating Yemen’s overall tax policy structure, identifying the gaps in the existing tax regime, and examining related reform priorities. In addition, the team conducted a further in-depth analysis of tax expenditures in Yemen, with a focus on personal income tax, corporate income tax, and VAT, along with strategic reform recommendations emerging from the team’s comprehensive tax policy and expenditure analysis activities. The team also developed an initial game plan to transition from the existing GST system to a full-fledged VAT structure and conducted a detailed review of the natural resources extraction-based revenue regime from a revenue mobilization and fiscal transparency perspective.

Regarding tax administration, ERLP experts built on the Performance Assessment completed in Q1 and developed a detailed set of recommendations with targeted regulatory reform measures to improve the basic functional efficiency and transparency features of the tax administration system in Yemen. These recommendations are primarily focused on re-designing the Tax Administration Authority structure along functional lines, based on a careful review of the existing organizational structure of the Tax Authority and a detailed assessment of best practice examples from the MENA region.

The project provided twelve structured training sessions to MOF staff on better practice compliant budget preparation and classification procedures in terms of training and capacity building. The training program included face-to-face coaching sessions conducted during the work visit organized by ERLP in Cairo in early spring 2021. Participants included four senior MOF officials and the president of the Tax Administration Authority.

ERLP experts also delivered five on-site training sessions to fifteen mid/upper-level MOF staff, focused on budget implementation. The training material was designed to address five core targets: i.) Providing a better understanding of the budget execution cycle; ii.) Presenting common best practices for budget pre-planning/planning; iii.) Ensuring better implementation of effective commitment control functions; iv.) Presenting different cash flow forecasting techniques and v.) Presenting the core guidelines for establishing Treasury Single Account (TSA) reforms within the CBY.

1.2.1 REVENUE POLICY AND ADMINISTRATION

BACKGROUND

Fiscal policy and revenue administration reforms are important prerequisites of post-conflict recovery. In Yemen, tax collection has witnessed some improvement over the first quarter of 2021, thanks mainly to improved revenue administration capacity, making it possible to resume paying civil servant wages and pensions, thus increasing household purchasing power and promoting overall economic growth.

QUARTERLY WORK ACTIVITIES AND DELIVERABLES

Building on what has been achieved over the first quarter in the area of revenue estimation and analysis, ERLP experts completed a further ‘deep-dive’ diagnostic of the tax policy framework in Yemen during Q2, following work on initial analysis conducted during Q1. The team focused on evaluating Yemen’s overall tax policy structure, identifying the gaps in the existing tax regime, and examining related reform priorities. In addition, the team also conducted a further in-depth analysis of tax expenditures in Yemen, with a focus on personal income tax, corporate income tax, and VAT, along with strategic reform recommendations emerging from the team’s comprehensive tax policy and expenditure analysis activities. Moreover, the team developed an initial game plan to transition from the existing GST system to a full-fledged VAT structure.

To achieve these objectives, the ERLP team held several rounds of consultation with senior staff from the Ministry of Finance and the Tax Administration Authority. The team also held an extensive meeting during the visit of the Yemeni delegation to Cairo. The visiting delegation included the head of the Tax Administration Authority and senior officials from MOF.

ERLP completed three detailed analysis/reports in Q3, including i) A review of the natural resources extraction-based revenue regime, from a revenue mobilization and fiscal transparency perspective, and related policy recommendations; (ii) An evaluation of the current GST system, with an accompanying time-framed game plan for transitioning towards a full-fledged VAT regime; and iii) An updated inventory of tax expenditures; along with targeted tax policy reform recommendations designed to limit revenue leakages and enhanced the core efficiency/equity features of the taxation framework in Yemen.

Below we discuss the methodology used for revenue estimation to develop the CY2021 budget and highlight the main findings of the analytical activities referenced above.

Table 14: Q2 Revenue Forecasting Activities and Deliverables

Activity	Deliverables
Develop stronger capacity to forecast border taxes using micro-simulation models in coordination with the MOF, the Customs Authority, and the ERLP Trade/Customs team;	1. An online or in-person workshop developing border tax forecasts using micro-simulation models with participating staff from MOF and Customs officials; 2. An online or in-person workshop assessing the variability of revenue flows and development of sensitivity and scenario analysis of revenues, which serve as input for 2021 budget and fiscal risk discussions; 3. An online or in-person workshop on the revenue estimates for the 2021 budget arising from potential policy changes and administrative efficiency measures.
Develop capacity to conduct sensitivity and scenario analysis of revenues as input for budget discussions;	
Include estimates of policy changes and, where possible, administrative efficiency measures in the annual revenue forecasts;	

Table 15: Q2 Tax Policy Activities and Deliverables

Activity	Deliverables
Provide a detailed assessment and related recommendations for revising the natural resource extraction-based revenue regime from a revenue buoyancy and transparency perspective.	1. A report presenting a detailed review and related detailed recommendations for revising the natural resource extraction-based revenue regime, from a revenue mobilization and fiscal transparency perspective; 2. A report presenting a detailed evaluation of the current VAT system, with an accompanying time-framed game plan to establish a more comprehensive VAT regime. 3. A report containing an updated inventory of tax expenditures; along with targeted policy reform recommendations designed to limit revenue leakages;
Undertake a detailed analysis of priorities for efficient and transparent restructuring of the current VAT system with an accompanying time-framed game plan for establishing a comprehensive VAT regime and concomitant phasing out of the existing sales tax system;	
Providing technical/training support designed to facilitate approval (on a best effort basis) efficient and transparent restructuring of the current VAT system, with an accompanying time-framed game plan for establishing a comprehensive VAT regime and concomitant phasing out of the existing sales tax system;	

I. FINALIZING REVENUE ESTIMATES FOR CY2021 BUDGET AND DEVELOPMENT OF RELATED SENSITIVITY AND SCENARIO ANALYSIS

ERLP finalized the projection of oil and non-oil revenue estimates in CY2021, using two estimation models that were developed by the team in Q1.

The non-oil revenue estimation model uses buoyancy and elasticity estimation techniques based on macroeconomic data covering GDP growth and inflation. The assumptions used in this model are based on an estimated real growth rate of 0.5 percent in CY2021, up from -5/-6 percent in CY2020. The inflation rate for CY2021 is estimated at 20 percent. Nominal GDP is estimated at 17,864 billion YER.

Table 16: Summary of the assumptions used in CY2021 non-oil revenue estimation model

MAIN MACROECONOMIC INDICATORS UPDATED ESTIMATES FOR BUDGET 2021		
	BUDGET	UPDATED ESTIMATES
Nominal GDP (bill YER)	18,110	17,864
Nominal GDP Growth (%)	19.2%	20.6%
Real GDP Growth (%)	0.5%	0.5%
Inflation Rate (%)	31%	20%
Deflator Index	8163	8138

Our analysis projects non-oil revenues to increase by 26 percent in CY2021, reaching 758 billion YER (compared to 600 billion YER in 2020). This increase is primarily driven by a surge in foreign grants, by around 60 percent, reaching 148 billion YER in 2021 (compared to 92 billion in YER 2020). The projected increase in tax receipts, custom duties, and other revenue receipts is also related in part to the relative economic recovery projected for CY2021 in Yemen.

The recent administrative and regulative reforms, which have been undertaken by the Yemeni government in the tax collection and customs area with the assistance of the ERLP team, have also laid the initial groundwork for improving tax collection capacity as well.

Table 17: Summary of the updated estimates of CY2021 non-oil revenues

SUMMARY TABLE FOR BUDGET 2021 MAIN OUTCOMES					
	2019 Actual	2020 Estimate	2020 Actual	2021 Budget	2021 Updated Estimates
Total Non-oil Revenues	**444**	**789**	**600**	**818**	**758**
Total Taxes	221	256	230	311	280
Total Central Government	221	185	225	226	274
Income Tax	97	93	96.8	113	117.8
Sales Tax	124	91	127.6	112	155.4
Other Taxes	0	1	0.4	1	0.5
Local Government Tax		1	0.6	1	0.8
Common Tax Receipts		4	5	5	5.8
Intermediate Bank Account		67	0	79	0
Customs	**97**	**190**	**115.3**	**209**	**138**
Dividends, sales of crude oil and gas	**48**	**248.1**	**248.1**	**185**	**333**
Grants	48	94	94	94	148
Other Revenues	**78**	**23**	**6.2**	**28**	**7.5**

It should be noted that the oil revenue estimation model employed by ERLP is based on a block-by-block time series analysis, using the month-to-month data obtained from the Ministry of Petroleum and the Ministry of Finance. The projections also use the latest data for Brent/barrel average market price in 2021.

The estimates indicate that total oil revenues will reach 1,057 billion USD by end-year CY2021, compared to 630 billion USD for CY2020. This increase is primarily based on the upward adjustment in international oil price, from 46.5 USD/barrel to 60.6 USD/barrel. A moderate increase in oil production is also expected to take place in 2021, following a recent government announcement of the resumption of production activities in Block 5/Janna, which is expected to reach an overall production level of 5.1 million barrels by the end of CY2021.

Based on these findings, ERLP experts conducted a detailed sensitivity analysis and shared the results with MOF/MOP team. ERLP fiscal specialists also delivered two intensive training programs, covering oil and non-oil revenue projections and analysis, to a team of twenty participants from MOP and MOF.

II. A REVIEW OF THE NATURAL RESOURCES EXTRACTION-BASED REVENUE REGIME, FROM A REVENUE MOBILIZATION AND FISCAL TRANSPARENCY PERSPECTIVE

Oil revenues still represent the most important source of government revenues. According to ERLP estimates, oil revenues are estimated to reach YER 887.5 billion in 2021 (with a projected average oil price of USD 60.6 and a projected exchange rate of YER 840/USD), compared to YER 330 billion in 2020. It is expected that oil prices will remain highly volatile in the coming few years. The global demand for oil is expected to decline in the medium to long term, emphasizing clean energy.

ERLP held a series of remote and in-person consultations with the Ministry of Finance to capture the structure of the oil extraction industry. ERLP drafted a comprehensive evaluation of the oil revenue regime (see appendix 1), focusing on royalty payments, profit sharing receipts, corporate income tax, and sales tax. The study identified two different revenue-based structures: One for state-owned projects (Petro Masila and SAFER) and one for private projects. The parameters of revenue distribution from oil extraction activities conducted by private/foreign companies are listed in the Profit-Sharing Agreements (PSAs) of each project. It is worth mentioning that the oil sector is exempted from corporate income tax in Yemen, which deviates from general good practice.

ERLP's analysis of the PSAs showed that they contain a mixture of royalties and income-based levies, which is common in many resource-rich economies. However, in Yemen, the PSAs place excessive reliance on income-based levies (about 98 percent). Only 2 percent of oil revenue is derived from royalties. Since oil companies are exempt from CIT as per the terms of the PSAs, it implies that there are elements of both resource rent and income taxation in the profit-sharing ratios. Unfortunately, the GOY is locked into long-term PSAs, separate for each foreign investor, which will be extremely difficult and not advisable to renege on for the sake of stability and credibility of the fiscal regime.

In theory, greater reliance on income-based levies mitigates the investing company's business risks. But ERLP experts have pointed out that greater reliance on income-based levies also brings serious and intractable administrative difficulties. These arise because the measurement of an investor's net income is famously prone to tax avoidance, even in advanced countries. In a country like Yemen with a low administrative capacity to handle complex international transactions, this situation may well give rise to transfer pricing issues, creating significant scope for revenue leakages.

ERLP's core recommendation in this regard is that, for future oil concessions, the GOY should have a more balanced mix between royalties and income-based levies; and avoid fiscal instruments that feature excessive reliance on income-based levies. The loss of revenues from non-compliance appears more serious than any incremental benefit of income-based taxes in terms of greater economic efficiency. It is also recommended that detailed micro-simulation and scenario analysis of oil reserves and price futures will need to be commissioned by the GOY before agreements are reached for future projects; for these to be more transparent. The ELRP fiscal team also can move ahead provide capacity-building support to relevant GOY staff in the transfer pricing rules area; so that oil revenue officials can improve their enforcement abilities under income-based revenue-sharing arrangements. More detailed recommendations in these areas are included in the oil revenue analysis paper included in the appendix.

The Yemeni authorities have also requested ERLP's help in assessing additional revenue sources that could be streamed from natural resource extraction activities. Particular attention was directed to the fisheries sector, representing a major source of employment and revenue generation for hundreds of thousands of coastal families in Yemen. It should be noted that this sector provides the highest contribution to the country's GDP for any non-oil/gas sector.

To assess possibilities for designing an efficient taxation framework for the fisheries sector in Yemen, ERLP developed a comprehensive questionnaire, which MOF and other relevant authorities completed in Yemen. The completed questionnaire includes thorough information covering the number of trawlers and vessels used in fisheries activities, the allocated quotas within the sector, the number of firms and family-owned businesses operating in the sector, and a recap of all fees related to the fisheries activities.

ERLP's analysis of the fisheries sector underscored that although Yemen lacks a comprehensive regime for collecting resource rents for marine natural resources under the Fisheries Law 2006, the law does a resource levy of 3 percent of the value of the fish at landing sites. However, in point of fact, the resource levy has not been enforced since 2015. This, in turn, reflects poor enforcement practices, inadequate fisheries management, corruption, and lack of security. Consequently, the GOY's fallback position has been the administratively " option of an export tax and export license fee. Also, there is currently no regime for fishing access fees and fishing rights fees for foreign vessels conducting fishing activities in the Yemeni exclusive economic zone. Selling of these access rights has been a major revenue source for most Pacific island nations, earning them hundreds of millions of U.S. dollars in revenue. Currently, in the absence of any other stable source of revenue, the export tax and export license fees are the only revenue the GOY receives from this important sector.

In the main report, we recommend that given the poor enforcement environment found at present., the GOY should consider the option of effectively extracting the ' resource rent from the fish auctioneer instead of the fishermen. In this regard, auctioneers have greater market power than individual fishermen and should prove easier to extract payment from an administrative enforcement standpoint (i.e., it should prove easier to collect fees from a group of auctioneers than from large numbers of fisherfolk). They can thus be compelled to act as withholding agents for the state. We have also recommended that MFW should set up a mechanism for charging fishing access fees and fishing rights fees for foreign vessels conducting fishing activities in the Yemeni waters. These fees should be based on the expected catch per day, with a minimum per day fee per vessel, to safeguard revenue and prevent understatement by the fishing companies. In addition, ERLP experts have recommended that the above-referenced export tax should at best be treated as a temporary source of revenue and should be phased out as the other recommended measures become revenue-yielding.

(See "*Macro – Annex 19 - A Detailed Review and Related Detailed Recommendations for Revising the Natural Resource Extraction-Based Revenue Regime, From A Revenue Mobilization And Fiscal Transparency Perspective*")

III. EVALUATION OF THE CURRENT VAT SYSTEM, WITH A TIME-FRAMED GAME PLAN FOR THE DEVELOPMENT OF A FULL-FLEDGED VAT STRUCTURE

ERLP also conducted an extensive evaluation of the current Sales Tax regime in Yemen during Q2, covering tax policy and the legislative and administrative framework. The study also presents a short to medium-term game plan for the transition towards a full-fledged VAT system.

In this regard, the existing GST Law in Yemen follows a hybrid structure, with mixed features of the sales tax and the VAT regime. This hybrid system projects several divergences from a standard VAT regime. ERLP experts have identified many administrative challenges that the Tax Authority will need to address as they consider VAT implementation.

The main report provides a detailed roadmap for transitioning from a hybrid GST to a full-fledged VAT system, including recommendations on registration, threshold, tax rates, exemptions, tax deferral, and VAT refund. The roadmap outlines an 18–24-month timeframe for policy dialogue; drafting the new VAT legislation and supporting subordinate regulations; re-engineering business processes and developing the technical specification for an e-VAT system, and training tax officials and taxpayer education in the new VAT accounting procedure and reporting requirements. Targeted policy and administrative reforms and related institutional-capacity building efforts along these lines could result in a phased launch of VAT in early 2023.

(See "*Macro – Annex 20 - Report on The Evaluation of The Current Sales Tax System And A Roadmap To Establish A Comprehensive VAT System*")

IV. AN UPDATED INVENTORY OF TAX EXPENDITURES ALONG WITH TARGETED POLICY REFORM RECOMMENDATIONS DESIGNED TO LIMIT REVENUE LEAKAGES

Building on the initial tax expenditure analysis conducted in Q1, ERLP drafted an extensive further analysis of the tax expenditure framework and designed targeted policy recommendations to limit revenue leakages (see appendix 3) and facilitate a more efficient, transparent, and equitable taxation system in Yemen. In this study, ERLP identified key tax policy fault lines and presented a refined numerical assessment of existing tax expenditures as well.

The final revised report lists the main sources of tax expenditures in Yemen regarding corporate tax, personal income, and sales tax. The method used in this study is based on a comparison between actual tax receipts generated in 2020 with expected tax receipts that can be generated using a general benchmark framework. It further elucidates that major tax policy-related and administrative compliance gaps appear to exist that are hampering revenue-inflows in Yemen, across a number of major taxation instruments. The ERLP fiscal team will continue to work closely with MOF and the Tax Authority to help develop a detailed database of all exemptions granted by the government to obtain a further fine-tuned estimate of overall tax expenditures in Yemen moving forward.

(See "*Macro – Annex 21 - Report on Updated Inventory of Tax Expenditures along with Targeted Policy Reform Recommendations Designed to Limit Revenue Leakage*")

1.2.2 TAX ADMINISTRATION

BACKGROUND

Under the ERLP/USAID-financed support program, ERLP fiscal experts built on the Performance Assessment Report completed in Q1 and developed a detailed set of recommendations with targeted regulatory reform measures to improve the basic functional efficiency and transparency features of the tax administration system in Yemen. These recommendations primarily are primarily focused on the re-design of the Tax Administration Authority structure along functional lines, based on a careful review of the existing organizational structure of the Tax Authority and a detailed assessment of best practice examples from the MENA region.

The Performance Assessment Report undertaken in Q1 identified the existing gaps across several performance outcomes areas. One of the main concluded weaknesses relates to the inefficiency of the organizational structure of the Tax Administration Authority. The Prime Minister has not officially approved the existing structure -- it has only been temporarily validated by MOF. Thus, the time is now very appropriate to present the proposed new structure for consideration and eventual approval.

QUARTERLY WORK ACTIVITIES AND DELIVERABLES

Most ERLP activities in Q2 primarily focused on designing vital regulatory reforms and revisiting the existing organizational structure of the Tax Administration Authority to enhance the performance, transparency, and cost-effectiveness of Tax Administration practices.

Within this context, ERLP experts conducted several virtual meetings with senior Tax Administration officials over the period February-April 2021 and three face-to-face consultations conducted during a working visit organized by the project in Cairo in April 2021. The Yemeni delegation included four senior MOF officials and the head of the Tax Administration Authority.

At the specific request of the Head of the Tax Administration Authority, the ERLP team also agreed to design and introduce other reform measures covering business processes and Information Technology infrastructure. This critical work-in-progress is targeted for completion in Q3.

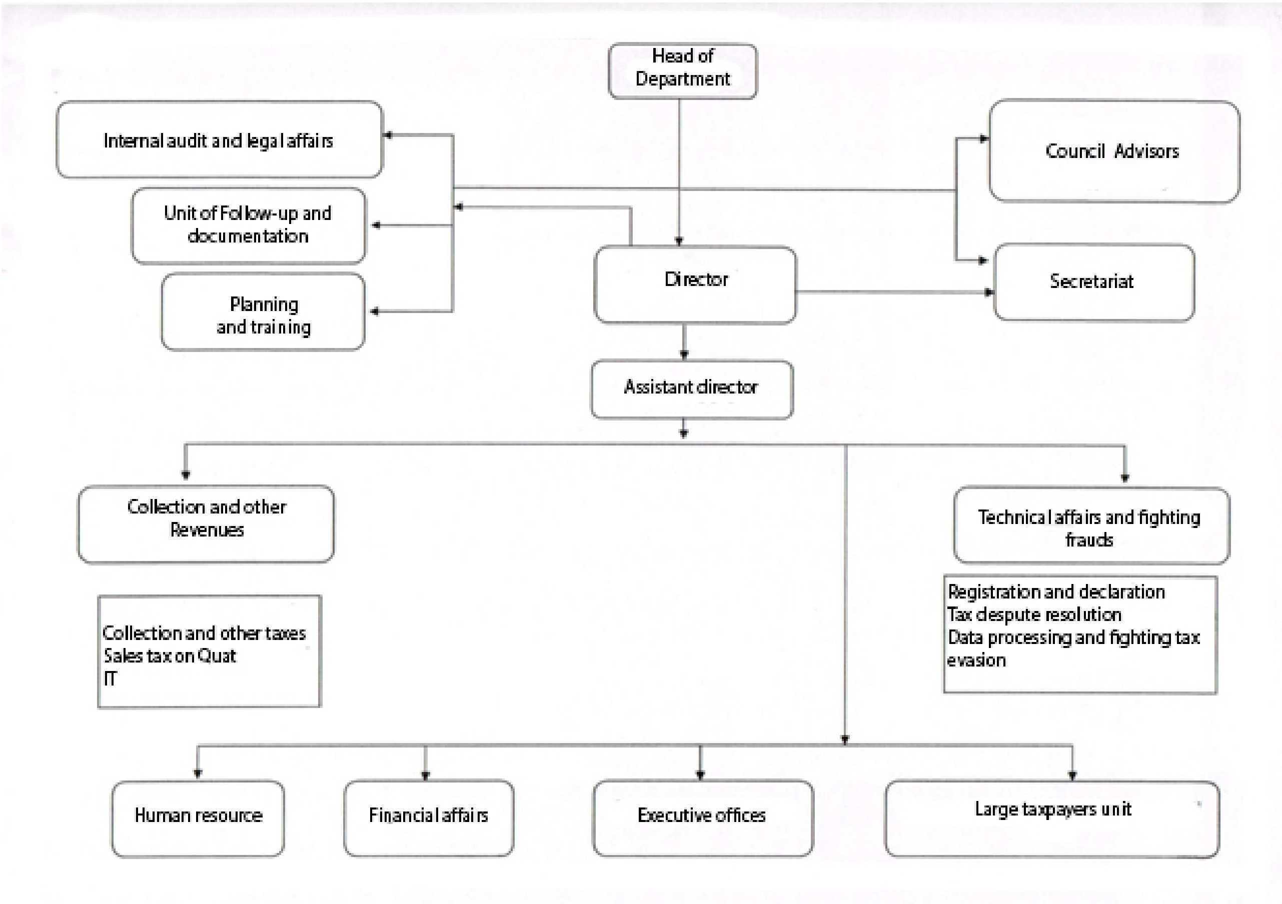
Table 18: Q2 Tax Administration Activities and Deliverables

Activity	Deliverable
Design draft regulatory/procedural/ institutional reforms designed to improve the basic functionality of the tax administration system.	A follow-on report provided with a detailed set of draft regulatory reforms designed to improve the basic efficiency and transparency features of the tax administration system, including re-design of its structure as needed along functional lines;

I. EXISTING ORGANIZATIONAL CHART

Under the existing organizational structure of the Tax Authority, the Head of the Dept. and the senior management team oversees the activities of approximately 35 employees located at the headquarters in Aden and across the regional offices (see Chart 1).

Chart 1: Existing Organizational Chart



As presented in Chart 1, the existing structure diverges significantly from the core better practice principles that would be reflected in a functionally based tax administration system. This, in turn, leads to the following basic administrative and governance weaknesses:

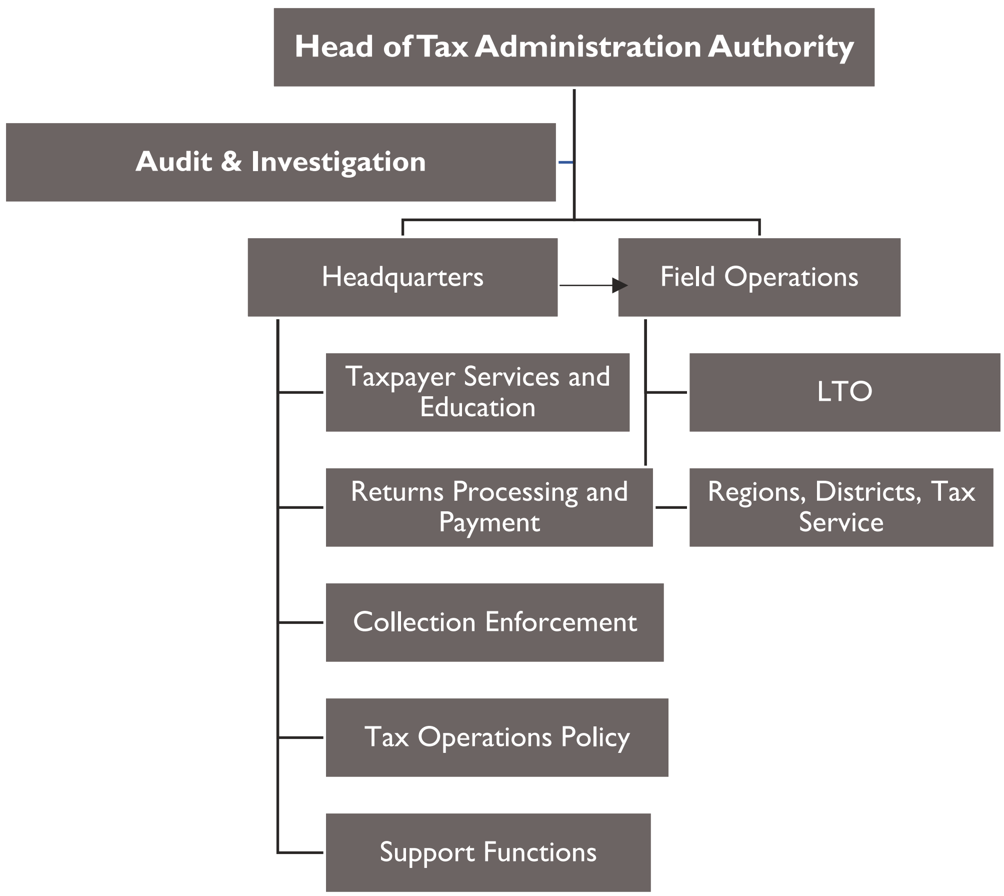
- Significant duplication of effort across among front-line offices
- Considerable fragmentation of resources across departments and related operational inefficiencies
- Weak tax collection capacity and poor tax evasion controls
- Low voluntary compliance rates across taxpayer groupings
- Significant excess compliance costs for taxpayers, for instance, associated with multiple registration procedures and various audit points.

PROPOSED ORGANIZATIONAL STRUCTURE

The diagnostic analysis carried out by ERLP experts has led to a proposed organizational restructuring approach for the Tax Authority centered around a **functionally based organizational model**. In this regard, the new design helps the separation of powers among the planning and execution arms of the Tax Authority. It also reinforces the **power of the headquarters office to** set policies and draft new programs and initiatives that are to be implemented systemically across all field offices. Within that context, it identifies a distinct organizational hierarchy focused on **field operations** under the overall direction and guidance of headquarters (See Chart 2).

(See "*Macro – Annex 22 - A Follow-On Report Provided with A Detailed Set of Draft Regulatory Reforms Designed to Improve the Basic Efficiency and Transparency Features of the Tax Administration System, Including Re-Design of its Structure as Needed Along Functional Lines*")

Chart 2: Proposed Organizational Structure for the Tax Administration Authority



The new structure would yield the following organizational and work-flow efficiency and transparency advantages:

- It allows standardization of similar processes across all functional tax administration areas, enabling more clearly defined, transparent and time-efficient interactions with taxpayers.
- It simplifies the procedures that taxpayers must follow to comply with their tax obligations, permitting greater uniformity across tax authority operations and enabling better oversight and control over the detached offices across the different governorates.
- It facilitates the effective digitalization of all work processes.
- It allows greater specialization, training, and career development/professionalization for Tax Authority staff.

- It promotes greater efficiency and higher productivity within the overall organizational structure and avoids the duplication of processes across the different segments of the tax administration matrix.
- It facilitates improved compliance results by permitting ready assessment of the behavior of individual taxpayers across different tax instruments, thereby supporting early detection of non-compliance behavior and trends.
- It reduces the intensity of taxpayer engagement by helping avoid duplicative s audits at different times by different tax officials focused on individual tax instruments.
- It enables each functional unit to focus efficiently on its primary areas of responsibility. Auditors, for example, can effectively concentrate their focus on auditing tax returns across all types of taxes and not be asked to 'veer off' into other administrative oversight areas outside their specialized skill zone.
- It provides an integrated overview of the taxpayer profile across the registration, audit, and collection functions, improving the practical focus and recommendations that can be derived from data analytics reports.
- It enhances control and accountability by ensuring that no single tax official is responsible for all administrative elements related to a single taxpayer.
- It can accommodate major legislative changes, such as introducing a new tax law, as needed, with minimal changes to the organizational structure.

According to the new recommended structure, the functions of the different departments will be organized in accordance with two matching hierarchical structures covering i.) The headquarters and regional offices, and ii.) The field operation offices.

I. HEADQUARTERS AND REGIONAL OFFICES

The function-based structure proposed by ERLP is anchored by a strong **headquarters-based supervisory department** that sets the overall policy plan and provides planning, support, and normative guidance for all field operations. The headquarters based supervisory department should carry out the following core responsibilities:

- Preparing strategic plans.
- Preparing an annual national work plan specifying the expected work targets, services to be delivered, budget requirements, enforcement mechanisms, and staffing level across each function, project, or initiative.
- Monitoring, evaluating, and reporting national performance outcomes against the designed work plan, assessing variances, and recommending adequate corrective actions as needed.
- Designing and maintaining standardized processes, norms, and policies, and producing core documentation (manuals, circulars, etc.).
- Providing advice and guidance to field operational units, as required.
- Developing selective criteria for compliance functions.
- Determining human resource needs related to recruitment, training, and allocation of personnel.
- Drafting budgets and allocating the required financial resources across Tax Authority units.

II. FIELD OPERATIONS

The proposed organizational structure organizes field operations by specific segments of the taxpayer population: Large, medium, and small. Offices structured in this manner provide a complete range of tax administration functions but with a focus that is geared particularly towards the specific needs and compliance challenges of the taxpayer segment in question. Some functions, like returns and payment processing, provide shared services across the various tax segments to maximize economies of scale. These shared functions can also be concentrated in a few locations where there is a sufficient critical mass of registered taxpayers.

The distinct supervisory department for **field operations** and delivery proposed in the new chart can be managed by a single director who reports directly to the head of the Tax Authority. Under the overall direction and guidance of the headquarters, the field operations department is responsible for program delivery and for the execution of the annual work plan developed by the headquarters office. In doing so, it performs all core operational functions of the Tax Authority.

The staff of field offices, including auditors, collection officers, fraud investigators, customer service specialists, and some of their managers, represent the central Tax Authority exclusively (i.e., they maintain a specialized focus on tax administration issues). They deal with taxpayers to provide information and assistance, perform audit assignments, enforce compliance, collect tax arrears, and investigate cases of possible tax fraud or evasion.

Staff of headquarter offices should never perform direct operations, such as audits, or get involved with taxpayers on selected cases. Mixing management and operational functions have consistently proved to be detrimental to the overall success of a sound tax administration framework/system. This fundamentally relates to the fact that the mixing of administrative oversight functions inevitably creates confusion for taxpayers and tax administration staff at all levels, promotes rent-seeking behavior, and compromises staff accountability.

It is also worth noting that after careful review of the existing organizational structure of the tax authority, ERLP experts advised Tax Authority leadership that it would be best to move towards greater centralization of staffing at this point, rather than fragmenting it through assigning small numbers of staff across too many locations. Centralized staffing ensures adequate provision of personnel to a limited number of centrally located tax offices to carry out core tax administration functions in an efficient and time-effective manner. In this regard, the central geographic locations of offices around the country make them accessible to a high percentage of taxpayers in each tax jurisdiction and ensure that taxpayers in relatively wide geographic areas can still be properly served.

ERLP experts included relevant matrix management features as well in the new functionally based organizational structure. Thus, while managers based in headquarters will have a vertical reporting relationship through the hierarchy to the head of the organization, they will also carry functional responsibilities covering delivery of these same services in the field. Accordingly, a manager will have direct oversight of the units reporting vertically to the head office and functional oversight of the overall work plan, work objectives, and targeted results of the field operations. Equally, a field manager will have a direct reporting relationship in the vertical hierarchy and take functional directions from the group of headquarters-based managers across a wide range of specialties delivered in the field.

NEXT STEPS

During the next quarter, ERLP experts will assist the Tax Administration Authority in facilitating approval of the new organizational chart by the Minister of Finance and initiating time-framed implementation activities. ERLP will also develop initial guidance on required improvements in core business processes (covering registration, filing, auditing, and payment procedures); and on upgrading requirements for the existing IT infrastructure that could help work efficiently across the entire tax administration system.

1.2.3 DEBT PLANNING AND MANAGEMENT

BACKGROUND

In Q2, ERLP debt management experts built on previous work conducted in Q1 and developed a comprehensive structure for the joint committee on debt management, which has been designed and initiated by ERLP. The structure has been discussed with and jointly approved by MOF, MOPIC, and CBY senior management.

The debt management team also resumed discussions with the UNCTAD for the reactivation of DMFAS and assessed the possibility of acquiring an alternative debt management database, Commonwealth Debt Management & Reporting System (CDMRS), which may be accessible to the CBY at a lower cost.

The team also further expanded the debt management database that was designed by ERLP in Q1, covering all available information on outstanding external loans, which has been obtained through different sources, including lenders.

QUARTERLY WORK ACTIVITIES AND DELIVERABLES

Table 19: Debt Planning and Management Q2 Activities and Deliverables

<table>
<tr><th>Activity</th><th>Deliverables</th></tr>
<tr><td>The dedicated working team was established at MOF to undertake debt management responsibilities, development, and endorsement of time-framed steps to transition public debt oversight activities from CBY to MOF. (On a best-efforts basis)</td><td rowspan="5">1. MOF, MOPIC, and CBY have approved the structure of the joint committee on debt management.
2. Discussions with UNCTAD for reactivation of DMFAS have been resumed.
3. ERLP team further expanded the debt management database initiated in Q1.
4. ERLP team developed a new registry of information covering foreign grants obtained in CY2021 and their sectoral breakdown</td></tr>
<tr><td>Organized database established with all available information on outstanding external loans.</td></tr>
<tr><td>Analysis/estimates of debt servicing obligations and disbursements prepared for incorporation within the CY2021 budget proposal.</td></tr>
<tr><td>The information-sharing protocol was established between the CBY and MOF, enabling MOF to access the current debt management information system used by CBY.</td></tr>
<tr><td>A joint MOF/MOPIC/CBY working group established to track and monitor all grant/aid-related data.</td></tr>
</table>

MAJOR ACTIVITIES

I. THE STRUCTURE OF THE JOINT COMMITTEE ON DEBT MANAGEMENT RECEIVED APPROVAL FROM MOF, MOPIC, AND CBY

According to the proposed structure, each of the three institutions has delegated two senior staff to participate in the committee meetings. The meetings are to be conducted three times a month: Two meetings are dedicated to the technical working group, and one meeting is dedicated to the senior management group. During these meetings, the Yemeni counterparts will lead the main activities and responsibilities of the debt management committee, which are listed hereafter:

1. Resume the communication initiated with bilateral and institutional creditors to obtain all available information on external loans
2. Initiate an information-sharing protocol allowing MOF, MOPIC, and CBY to have access to the same information on loans and grants
3. Develop and maintain a unified database comprising all relevant information on domestic and external loans and on foreign grants
4. Completing the procedures required to reactivate the DMFAS in the Central Bank and resume negotiations with the UNCTAD to reduce the proposed fee acquisition and maintenance fee of the DMFAS software (about USD 560 million)
5. Develop a medium-term strategy for the management of public debt (both domestic and external), allowing the government to cover its financing needs at the lowest possible cost and based on a thorough risk management review
6. Develop a risk management toolkit allowing for the assessment of the cost and risk associated with the existing debt portfolio on an ongoing basis
7. Discuss and review new proposals relating to the issuance of new domestic loans. The committee should agree on the timing of issuance, the borrowing strategy, the type of securities in reference, and the maturity plan of the loans
8. Assist MOPIC, in collaboration with the CBY and MOF, in the negotiations with external creditors to convert existing debts into grants and to expand the debt waiver initiative through the Paris Club
9. Provide updated information on the external grants obtained during the calendar year, with sectoral breakdown for the allocation of resources, which should go in line with the overall predefined budget priorities
10. Issuing periodic reports on the position of internal and external public debt, its composition, instruments, maturity dates, and interest rates
11. Any other tasks assigned to or agreed upon by the committee members

ERLP team will act as technical secretariat for the debt management committee. In other words, ERLP experts will schedule the meetings, draft the agendas, facilitate the discussions and circulate the minutes of the meetings.

It is worth noting that information sharing between MOF, MOPIC, and CBY was virtually absent before the joint committee on debt management was established by the ERLP team. Therefore, reinforcing information sharing has been the most critical target which was considered when drafting the committee structure and related documents.

In turn, ERLP experts will assist MOF in reviewing and analyzing the new information to be received from lenders and the DMFAS data (whenever the DMFAS system is reactivated). This will allow MOF to track balances and get prompt information about holders, maturities, payment dates of principal, and interest, and integrate the obtained/updated information on debt arrears within the CY2022 budget.

II. DISCUSSIONS WITH THE UNCTAD ON REACTIVATION OF DMFAS HAVE BEEN RESUMED

In Q2, the ERLP team facilitated a critical meeting between senior CBY management and UNCTAD's desk officers for Yemen to review the DMFAS reactivation plan. Based on this consultation, UNCTAD updated their proposal covering the acquisition of software and training activities, which would cost about USD 560K.

On a parallel track, ERLP also initiated discussions with the Commonwealth Debt Management & Reporting System (CDMRS) Secretariat to obtain more information on the CDMRS debt management toolkit. This reflects the fact that DMFAS and CDMRS are the main two debt management databases available in the market, with almost the same advanced features.

CDMRS provides the same features as DMFAS and is used by 60 countries globally. A new-updated CDMRS release was initiated in the first few months of 2021 with a number of more advanced features than DMFAS, including Straight Through Processing (STP) of invoices. The automatic reporting to IMF and WB feature is also available on CDMRS. The initial cost estimate for CDMRS ranges between USD 250 and USD 300K, which is almost half the cost proposed by UNCTAD.

ERLP experts will, in this regard, continue to review with relevant CBY staff (in collaboration with MOF as well) the relative advantages of each debt management reactivation option (at this point, it appears that the CDMRS – or Crown Agents System – may be the most advantageous for the reasons presented above). ERLP will help facilitate additional related discussions between the CBY and UNCTAD/CDMRS representatives to make an efficient final selection of one of the two systems. ERLP will also help the CBY develop outreach proposals designed to help facilitate access to the necessary funds for the acquisition of this important toolkit, potentially through regional and/or international donors.

III. FURTHER DEVELOPMENT OF THE DEBT MANAGEMENT DATABASE INITIATED IN Q1

Since there is no central databank for all outstanding external loans in Yemen, ERLP debt management experts developed a basic debt management database in Q1, combining all available information on external loans, including the start date, total amount, maturity, installments, and interest.

During Q2, the debt management team expanded this database to include new information received from lenders based on information requests sent out earlier with ERLP support, which were addressed by the Minister of Planning to bilateral and institutional creditors. It is worth noting that no new loans have been issued domestically or obtained through external creditors during Q1-Q2. The World Bank's IDA remains the only creditor that Yemen continues to service.

So far, the updated database includes detailed information received from IDA, Italy, Iraq, Japan, and the OPEC Fund for International Development. This database represents a work in progress and is updated daily based on ongoing information received from relevant lenders/donors through MOPIC.

Domestic Debt

Public debt management oversight/activity currently takes place at the Central Bank of Yemen. The CBY issues Certificates of Deposit and Agency deposit Certificates with short-term maturity of 3 months (Islamic Sukuk); and follows up on related interest payments. For 2020, the Certificates of Deposit were issued on a quarterly basis, with a total value of 100 billion riyals per quarter. Outstanding short-term domestic debt balance reached YER 100 Billion by the end of 2020. No new issuance has taken place since 2020.

Table 20: Certificates of Deposit and Agency Deposits (in Billions YER)

	Q1	Q2	Q3	Q4
Certificates of Deposit	36.3	33.0	29.0	25.0
Agency Certificates	63.7	67.0	71.0	75.0
Total	100.0	100.0	100.0	100.0

External Debt

The CBY follows up on the payment of installments and interest due for external loans. So far, the World Bank's IDA is still the only creditor that Yemen continues to service.

Table 21: Principal and Interest Payments on IDA Loan in 2021 (in Million US$)

	Q1	Q2	Q3	Q4	Total
Principal	15.27	24.36	15.27	24.86	79.76
Interest	1.66	3.84	1.71	3.75	10.96
Total	16.93	28.2	16.98	28.61	90.72

* This covers IDA payments only

Table 22: Total Debt Service for Y-2019, Y-2020, and Y-2021 Budget (in Million YER)*

	2019	2020	2021
Domestic Loans			
Amortization of Deposit Certificates and Agency Certificates	100,000	100,000	100,000
Interest paid on Deposit Certificates and Agency Certificates	24,086.6	24,327.5	24,570.8
Interests paid on the Overdraft of the Government Central Account	265,544.8	268,200.2	270,882.2
External Loans			
Principle	31,047.2	31,330.4	31,643.6
Interest	4,886.3	4,934.1	4,983.5
Total Installments	**131,047.2**	**131,330.4**	**131,643.6**
Total Interest	**294,516.7**	**297,461.8**	**300,436.5**

*The interest on domestic debt is estimated based on a 1% growth rate in 2020 and 2021.

GRANTS AND FOREIGN AID

During Q2, the ERLP team has also developed a comprehensive registry comprising updated information on foreign grants approved/received in CY2021, along with a detailed sectoral breakdown – a major step forward on the budgetary transparency front. ERLP has also discussed with MOPIC, MOF, and CBY counterparts the possibility of opening one focal account at the CBY dedicated to grants exclusively (currently under consideration).

Table 23: New Grants Allocated for Local Investment and Infrastructure Development (in Million YER)

Sectoral Breakdown	External Grants
Electricity & Energy	10,500
Reconstruction & Rehabilitation	5,000
Public Works & Roads	27,000
Water & Environmental services	37,000
Agriculture & Irrigation	1,500
Fisheries	500
Public Health & Population*	5,000
Higher Education	6,500
Technical and Professional Education	2,500
Transportation and Communication	500
Social Protection	52,000
Planning and International Cooperation	0
Government Administration	0
Total Expenditure	**148,000**

This excludes foreign assistance received within the framework of the COVID-19 government response strategy. Additional foreign assistance within the COVID-19 response strategy is listed in detail in Table 24.

Table 24: New Grants Allocated to Implement the COVID-19 Response Strategy Initiated by MOF with the Assistance of ERLP Team

Budget Classification	Year	
	2020	2021
	Foreign Grants (in YER Million)	Foreign Grants (in YER Million)
Section 1: Wages and Compensations	**0**	**0**
Wages of medical staff	0	0
Additional financial incentives for medical staff	0	0
Section 2: Expenditures on Goods and Services	**11,073**	**10,880**
Medical supplies	10,350	10,000
Public awareness campaigns and training seminars	0	0
Quick Covid-19 tests	63	80
Outsourced medical care services	0	0
Subsidized meals for medical staff & volunteers	0	0
Transportation expenses to local governorates	0	0
Logistical/operational medical expenses	660	800
Section 3: Social Subsidies, Grants and Benefits	**0**	**0**

Budget Classification	Year	
	2020	2021
	Foreign Grants (in YER Million)	Foreign Grants (in YER Million)
Tax and customs' exemptions	0	0
Financial subsidies to Yemeni Airlines	0	0
Financial Subsidies to Electricity Companies	0	0
Financial transfers to local governorates	0	0
Financial transfers to Al-Amal Medical Center	0	0
Covid-19 related social benefits	0	0
Section 4: Non-Financial Asset Acquisition	**12,990**	**11,050**
Medical Equipment for hospitals and schools	12,990	11,050
Medical equipment for isolation and quarantine centers	0	0
Temperature screening devices	0	0
Total Foreign Grants in YER Million	**24,063**	**21,930**

NEXT STEPS

ERLP plans to help launch the first official meeting of the debt management committee in the first month of Q3. In this regard, ERLP experts are collaborating closely with and MOPIC counterparts to further institutionalize the role of this critical committee through ratification of a Prime Ministerial decree (a Prime Ministerial decree has already been drafted by MOPIC, with the direct assistance of ERLP experts and is currently under consideration by the PM Office). ERLP will continue to support the data collation/analysis and related debt recording and tracking activities of the debt management committee through 2021 and will help the CBY move forward with the efficient selection of one of the two primary debt management toolkits reviewed by the team (DMFAS and CDMRS).

1.2.4 BUDGET PLANNING

BUDGET PLANNING

ERLP experts focused on providing targeted technical/training assistance to relevant MOF, MOPIC, and selected line ministry staff on the development/introduction of improved budget planning and classification standards and practices. ERLP experts also provided support to help finalize the detailed CY2021 budget projections and developed a core set of regulatory/operational guidelines for establishing a better practice compliant budgetary policy/procedural framework, which will be used for the preparation of the CY2022 budget.

Moreover, ERLP experts drafted a GFIS-compliant budget coding manual, prepared in collaboration with MOF. In addition, the project provided twelve structured training sessions to MOF staff on better practice compliant budget preparation and classification procedures. The training program included face-to-face coaching sessions conducted during a work visit organized by ERLP in Cairo in early spring 2021. Participants included four senior MOF officials and the president of the Tax Administration Authority.

The project team also assessed the budget expenditures for activities related to the response to COVID-19 (summarized in Section 3 of this report) and developed a fiscal, programmatic response strategy addressing the impact of the pandemic crisis on the economy.

QUARTERLY WORK ACTIVITIES AND DELIVERABLES

Table 25: Q2 Budget Planning Activities and Deliverables

Activity	Deliverables
Finalize detailed CY2021 budget projections in a manner that reflects better practice budget prioritization and classification principles.	1. Detailed CY2021 budget projections finalized. 2. Draft regulatory/operational guidelines prepared to establish a better practice compliant budgetary policy/procedural framework. 3. A GFIS-compliant budget coding manual prepared in collaboration with the MOF for CY2021 budget estimation purposes. 4. At least 4-6 structured training sessions provided on better practice compliant budget preparation and classification procedures.
Prepare draft regulatory/operational for budgetary policy/procedural framework to facilitate more efficient performance-informed budget prioritization processes in consultation with the MOF team.	
Finalize preparation of a GFIS-compliant budget coding manual for the MOF to be utilized for CY2021 budget estimation purposes.	
Support development by MOF of a detailed presentation of the proposed CY2021 budget by the MOF team within the ministerial budget committee (the committee which reviews and approves the final budget draft)	
Provide structured training support on better practice compliant budget preparation and classification procedures.	

I. DETAILED CY2021 BUDGET PROJECTIONS

During the quarter, ERLP activities included an intensive focus on finalizing the CY2021 detailed budget draft, based on ongoing consultations with five working groups comprising representatives from key ministries, including MOF, MOPIC, Ministry of Education, and Ministry of Health. The main highlights of the CY2021 budget are summarized in Table 26.

Table 26: CY2021 Detailed Budget Projection

Fiscal Parts	CY2021 Budget Projection (in thousands of YER)			
	Central	Local	Total	% of total expenditures
Projected Revenue			**1,491,759,141**	
Part (1): Wages and Employee Compensations	672,429,893	375,158,035	1,047,587,928	43.9%
Part (2): Expenditure on Goods and Services	344,936,093	19,447,641	364,383,734	15.3%
Interest Payment	208,262,831	-	208,262,831	8.7%
Part (3): Social Subsidies Grants, and Benefits	513,707,825	793,861	514,501,686	21.6%
Part (4): Non-Financial Asset Acquisition	194,502,000	-	194,502,000	8.2%
Unclassified Expenditure	51,878,901	-	51,878,901	2.18%
Total Expenditure	1,985,717,543	395,399,537	2,381,117,080	100%
Cash Deficit			**- 735,217,080**	
Liabilities Repayment	37,996,813		37,996,813	
Overall Projected Deficit			**- 773,213,893**	
GDP			**17,864,000,000**	
Total Deficit as % of GDP			**-4.33%**	

CY2021 budget projections indicate a marginal reduction in the cash deficit, from YER 782.1 billion to YER 735 billion, compared to CY2020. The decrease in the cash deficit is mainly driven by the relative improvement in oil and non-oil revenues, based on upward adjustments in global oil prices and expected relative improvement in economic growth in Yemen more generally.

ERLP experts worked closely with MOF to promote enhanced wage bill containment (which has traditionally exceeded half of the total government expenditure, on average). In this regard, MOF reduced the expenditures on wages and employee compensations to YER 1 billion, marking an 8% decrease compared to CY2020 (wages and compensations represent 44% of total projected spending for CY2021).

MOF also allocated 21.6 percent of the CY2021 budget to social subsidies and grants, 15.3 percent to spending on goods and services, and 8.2 percent to interest payments.

The projected revenues for CY2021 are expected to cover 69.1 percent of the estimated budgetary expenditures. The deficit is expected to reach 4.3 percent of GDP, down from approx. 5.7% percent in CY2020.

II. INVESTMENT EXPENDITURES

ERLP also worked with MOF and MOPIC to develop a more transparent and clear basic public investment prioritization process and expenditure plan linked to priority socio-economic recovery/development objectives of the newly formed government. Table 27 presents a detailed breakdown of the anticipated CY2021 investment expenditures plan.

Table 27: Government Investment Expenditures, by Sector, CY2021

Investment Expenditures by Sector	Allocations (in million YER) by Source of Finance		Total Expenditures	Sector Share of Total Expenditures
	State Treasury	External Grants		
Electricity and Energy	30,060	10,500	40,560	20.85%
Reconstruction and Rehabilitation	12,500	5,000	17,500	9.00%
Public Works and Roads	154	27,000	27,154	13.96%
Water and Environmental Services	60	37,000	37,060	19.05%
Agriculture and Irrigation	24	1,500	1,524	0.78%
Fisheries	12	500	512	0.26%
Public Health and Population	20	5,000	5,020	2.58%
Higher Education	56	6,500	6,556	3.37%
Technical and Professional Education	20	2,500	2,520	1.30%
Transportation and Communication	14	500	514	0.26%
Social Protection	3,440	52,000	55,440	28.50%
Planning and International Cooperation	102	0	102	0.05%
Government Administration	40	0	40	0.02%
Total Expenditure	**46,502**	**148,000**	**194,502**	**100.00%**

As indicated in Table 27, public works is expected to receive the largest share of public investment expenditures in CY2021 — approximately 29 percent of total investment spending. This is followed by the electricity and energy sector (21%) and the water and environmental services sector (19%).

It should be noted that public works typically represent small and medium-sized infrastructure projects contracted out to SMEs, creating short-term job opportunities and supporting the rehabilitation of basic physical and social infrastructure. Approximately 15 percent of investment spending will be directed toward improving security infrastructure and equipment (reflecting the ongoing fragility of the security environment in Yemen). Overall, almost 76% of total public investments in CY2021 are expected to be financed by external grants.[1]

III. COVID RELATED EXPENDITURES

ERLP is working in close collaboration with the MOF Budget Department to design a meaningful pandemic-response component within the annual budget. ERLP is also helping to improve sectoral budget planning processes at MOF, based on optimal budget prioritization criteria, with an initial focus on the education and health sectors. This includes focusing on more improving the magnitude and efficient targeting of public resources allocated to healthcare services, including for COVID treatment and prevention activities.

Table 28 presents a detailed breakdown of the allocation of COVID-related government expenditures and foreign aid in the healthcare sector for CY2020 and CY2021. Overall, total healthcare expenditure allocations for COVID-related policies reached YER 16.52 billion in CY2020 and increased to YER 39.8 billion in CY2021. Foreign aid in response to the crisis in CY2020 is estimated at YER 24 billion and YER 22 billion in CY2021. In sum, COVID-19-related allocations increased by almost 52 percent in CY2021.

In CY2020, MOF allocated YER 55 million to finance wages and other compensation for medical staff working at COVID-related medical sites. This was increased to YER 5.5 billion in CY2021. MOF also allocated YER 1 billion each for CY2020 and CY2021 to support spending on COVID healthcare-related goods and services. External donors provided additional funding of approximately YER 11 billion in each of CY2020 and CY2021, which were channeled to the procurement of medical supplies, including rapid Covid-19 tests.

In addition, the government secured YER 1.2 billion in CY2020 for the acquisition of non-financial assets (capital expenditures), which were mainly used to buy medical equipment for hospitals and quarantine centers. The government allocated the same volume of resources for the acquisition of medical equipment in CY2021. External aid for acquiring COVID-related non-financial assets reached YER 13 billion in CY2020 and YER 11 billion in CY2021.

About half (52 percent) of COVID-19-related costs are slated to be allocated for social subsidies, grants to service entities, and social benefits. MOF allocated YER 14 billion in CY2020 and YER 32 billion in CY2021, respectively, for social subsidies, grants and benefits in response to COVID-19 social stabilization needs.

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[1] Based on recent information received from MIOPIC, the government expects to receive an additional grant from the World Bank, of about USD 350 million, and this will increase the reported figure of total grants by the same amount. Once confirmed/received, ERLP team will review and update the necessary figure.

Table 28: COVID-19-Related Government Healthcare Expenditures, CY2020 and CY2021

Year	CY2020		CY2021	
Budget Classification	COVID-19 Related Cost Factor (in YER million)			
	General Treasury	International Assistance	General Treasury	International Assistance
Section 1: Wages and Compensations	**55**	**0**	**5,500**	**0**
Wages of Medical Staff	35	0	3,500	0
Additional Financial Incentives for Medical Staff	20	0	2,000	0
Section 2: Expenditures on Goods and Services	**983**	**11,073**	**1,059**	**10,880**
Medical Supplies	943	10,350	1,000	10,000
Public Awareness Campaigns and Training Seminars	22	0	30	0
Quick COVID-19 Tests	0	63	0	80
Outsourced Medical Services	1	0	5	0
Subsidized Meals for Medical Staff and Volunteers	2	0	4	0
Transportation Expenses to Local Governorates	15	0	20	0
Logistical/Operation Medical Expenses	0	660	0	800
Section 3: Social Subsidies, Grants, and Benefits	**14,212**	**0**	**32,000**	**0**
Tax and Customs' Exemptions	11,567	0	11,567	0
Financial Subsidies to Yemeni Airlines	720	0	720	0
Financial Subsidies to Electricity Companies	0	0	12,000	0
Financial Transfers to Local Governorates	1,755	0	7,000	0
Financial Transfers to Al-Amal Medical Center	60	0	60	0
COVID-19 related social Benefits	110	0	653	0
Section 4: Non-Financial Asset Acquisition	**1,273**	**12,990**	**1,250**	**11,050**
Medical Equipment for Hospitals and Schools	750	12,990	750	11,050
Medical Equipment for Isolation and Quarantine Centers	500	0	500	0
Temperature Screening Devices	23	0	0	0
Total Expenditure	**16,522**	**24,063**	**39,809**	**21,930**
Grand Total in YER million	**40,585**		**61,739**	
Grand Total in USD million	**47**		**71**	

YER= Yemeni Rial

IV. CORE REGULATORY/OPERATIONAL GUIDELINES FOR ESTABLISHING A BETTER PRACTICE COMPLIANT BUDGETARY POLICY/PROCEDURAL FRAMEWORK

ERLP has, over the past few months, developed an organized budgetary policy and procedural framework in collaboration with MOF to fully implement it through the preparation process for the CY2022 budget. This budget planning/presentational framework is structured as follows:

- Introduction: Includes the macroeconomic and macro-fiscal objectives the CY2022 budget aims to achieve.
- Section 1: Includes the economic, monetary, and fiscal assumptions for the CY2022 budget.
- Section 2: Lists the fiscal objectives of the CY2022 budget, including revenue estimation objectives and budget planning objectives.

- Section 3: Includes the fundamental budget prioritization approaches adopted by MOF to develop the state budget that will be applied to the CY2022 budget process, including the introduction of the Medium-Term Expenditure Framework (MTEF) for the education and health sectors.
- Section 4: Includes the general rules for preparing the CY2022 state budget draft. These rules are based mainly on relevant laws, executive decrees, and MOF decrees. The rules will cover the revenue and expenditure sides of the budget at both the central and local levels.
- Section 5: Includes the detailed rules for estimating key items on the revenue and expenditure sides of the budget.
- Section 6: Includes an assessment of the different fiscal risks that affect budget projection.

The proposed structure will help improve budget planning processes based on better-practice guidelines and will enable MOF to proceed with CY2021 budgetary projection in a more structured and transparent way. This framework was thoroughly discussed and approved by senior MOF officials during a work mission conducted in Cairo on 6-12 April 2021.

(See "*Macro – Annex 23 - Draft Regulatory/Operational Guidelines Prepared for Purposes of Establishing A Better Practice Compliant Budgetary Policy/Procedural Framework*")

V. DRAFTING A GFIS-COMPLIANT BUDGET CODING MANUAL, IN COLLABORATION WITH MOF

ERLP has also helped develop a GFIS-compliant coding manual for budget classification that is consistent with best practice guidelines. The new manual has been discussed in-depth with and initially approved by MOF.

Currently, MOF uses a basic budget classification following five overarching functional areas. The GFIS-compliant budget classification manual will add another five basic functional areas as briefly summarized in Table 29.

Table 29: Existing Budget Classification in Yemen vs. GFIS Compliant Functional Classification

Existing Budget Classification	GFIS-Compliant Budget Classification	
01 General Public Services	01 General Public Services	06 Housing and Community Amenities
02 Education	02 Defense	07 Health
03 Health	03 Public Order and Safety	08 Recreation, Culture, and Religion
04 Social Affairs	04 Economic Affairs	09 Education
05 Economic Affairs	05 Environmental Protection	10 Social Protection

Prior to developing this manualized material, ERLP experts reviewed background documents relevant to the budget planning and implementation process in Yemen. These included: Fiscal Law (No. 8 of 1990), its amendments, and its Executive Regulations; Local Authorities Law (No. 4 of 2000); Central Bank of Yemen Law (No. 14 of 2000); Government Tenders and Procurements (No. 23 of 2007); and Civil Service Law (No. 19 of 1991) to ensure full compliance with the existing legal framework.

The project has also developed a game plan to effectively guide the transition from the existing classification system towards the GFIS-compliant manual, as summarized in Table 30.

Table 30: Game-plan for the Transition towards a GFIS-Compliant Budget Classification Framework

Step	Status
1. Obtain Preliminary approval for the introduction of new amendments to the existing budget classification guidelines	Achieved
2. Review existing budgetary laws and regulations to ensure that the new classification manual is compliant with the existing legal framework	Achieved
3. Draft the top-level classification categories for revenues and expenditures, in line with GFIS, and obtain formal approval for the integration of this new structure	Achieved
4. Finalize the detailed budget classification structure and related mapping procedures based on the revenue & expenditures in the newly approved structure	In progress
5. Obtain official approval on the new budget classification manual	Expected to be finalized in Q4 - CY2021
6. Draft a Ministerial circular to integrate the new GFIS compliant budget classification manual officially	Expected to be finalized in Q4 - CY2021
7. Develop a comprehensive capacity building program to train MOF staff on how to use the new manual and to ensure a smooth transition from old to new classification framework	Expected to be finalized inQ4 - CY2021

VI. TARGETED TRAINING OF MOF STAFF

ERLP experts have also developed and delivered four training modules (structured in twelve sessions) to selected staff from the budget department at MOF over the past several months. These sessions covered the MTEF, program-based budgeting, assessment of budget ceilings, and the GFS budget classification core guidelines. All sessions included interactive discussions about the status of expenditure planning in Yemen and how it compares with international best practice standards and other relevant regional experiences.

NEXT STEPS

Significant progress has been made in introducing relevant MOF, MOPIC, and selected line ministry staff to core better practice complaint budget planning and classification principles and procedures; and initiate integrating these fundamental budgetary transparency and efficiency concepts into core budget planning practices. It will be extremely important that institutional momentum continues in this direction moving forward, including through the adoption of rigorous budgetary prioritization practices at the sectoral level and for the capital budget overall for the CY2022 budget, as well as the initial introduction of rudimentary multi-year budget plans for the education and health sectors.

1.2.5 BUDGET IMPLEMENTATION

During the quarter, ERLP developed a comprehensive action plan for budget execution reform, which lays out detailed guidelines for consolidating commitment control functions within the budget execution cycle. It also lays out the foundations for developing a yearly, quarterly, and monthly cash flow forecasting mechanism at the MOF, which allows the MOF budgeting team to make informed decisions about financial ceilings and commitments.

The action plan, which entails close collaboration between the MOF and CBY, was endorsed by both institutions. Support activities have focused intensively on developing the basic skills of the relevant MOF staff and on initiating operations of the Joint Committee for the Management of the Treasury (JCMT), which is a core and fundamental target in the action plan.

Tightly targeted technical and training support efforts were directed towards the gradual and smooth transition of control over treasury operations from the CBY to the MOF. They also focused intensively on improving the core operational procedures for budget execution functions across the MOF and CBY, designed to enhance their transparency significantly and efficiently.

(See “*Macro – Annex 24 - Budget Execution Reform Action Plan*”)

QUARTERLY WORK ACTIVITIES AND DELIVERABLES

Table 31: Q2 Budget Implementation Activities and Deliverables

Activity	Deliverables
Provide recommendations on technical requirements for interlinking current CBY treasury operations to the General Administration for the Management of the Public Account (GAMPA) at the MOF;	1. A report on technical requirements for effectively interlinking current CBY treasury operations to the General Administration for the Management of the Public Account (GAMPA) at the MOF. 2. Initial training provided (minimum of 2-3 training sessions) to MOF employees on using the computerized financial system in collaboration with relevant CBY technical staff. 3. Initial training to MOF employees on daily reports demonstrating the updated balance of the general government account, in addition to a comprehensive cash-flow statement. 4. A new database elaborated with comprehensive data on government expenses and revenues. 5. An initial report was issued providing updates on government cash balances. 6. A comprehensive set of regulatory/operational guidelines drafted covering improved budgetary allotment, commitment control, and payment authorization processes in MOF.
Training for MOF employees on using the computerized financial system in collaboration with relevant CBY technical staff.	
Provide corollary initial training to MOF employees on daily reports demonstrating the updated balance of the general government account, in addition to a comprehensive cash flow statement, in a manner that significantly improves the accuracy of cash flow estimation processes.	
Develop a new database on government expenses and revenues and preparing periodic reports with updates on the government cash balance.	
Design regulatory/operational guidelines designed to improve the efficiency, time-effectiveness, and transparency characterizing budgetary allotment, commitment control, and payment authorization processes in MOF.	

I. EFFECTIVELY INTERLINKING CURRENT CENTRAL BANK OF YEMEN TREASURY OPERATIONS TO THE GENERAL ADMINISTRATION FOR THE MANAGEMENT OF THE PUBLIC ACCOUNT (GAMPA) AT THE MINISTRY OF FINANCE

ERLP initiated the effort to transfer the treasury management decisions from the CBY to the MOF. The transition of the treasury management function will provide the MOF with current, daily information regarding the resources available and the appropriate decisions to be made to manage the treasury’s position efficiently. This will enhance MOF’s management of the Public Accounts and relieve the pressure on the CBY to finance budget deficits through an overdraft facility and/or increased monetary emissions. Full control over the payment processes would be achieved at a subsequent stage, implementing a computerized transaction processing and accounting system within the MOF. To achieve this goal, ERLP assisted in the design and launch of the Joint Committee for the Management of the Treasury (JCMT), which combines senior-level participants from the MOF and CBY.

The JCMT will act as a liaison point between MOF and CBY, based on a well-defined mandate to be approved by both counterparts, covering all work related to treasury management, cash forecasting, budget allocation & commitment control, and financial reporting. The initially proposed tasks to be covered by the work of the committee include, but are not limited to, the following:

- Conduct bi-weekly meetings to review and approve the cash forecasting plans, which MOF and CBY will jointly prepare.
- Assess the anticipated budget expenditures against the forecasted cash flow and provide different scenarios for the forecasted budget deficit on a quarterly, bi-annual and annual basis. It is worth noting that the risk assessment of the cost of financing the budget deficit and the review of the available financing alternatives entail budget financing issues that exceed JCMT's scope (which is focused on budget execution functions). These issues will be discussed by the Debt Management Committee and in the presence of representatives from the three main counterparts (MOF, CBY, and MOPIC).
- In collaboration with the Debt Management Committee, conduct monthly meetings to review the scheduled debt repayment plan and ensure that debt service and debt arrears are integrated into the cash flow forecasting plan.

The project drafted Terms of Reference (TOR) for the JCMT, which have been discussed with the MOF and CBY counterparts and approved to proceed. According to the TOR, both MOF and CBY are requested to nominate two to three representatives to participate in the committee meetings. Once the participants are nominated, the committee will start holding official meetings.

(See "*Macro – Annex 25 - Provide Detailed Recommendations on Technical Requirements for Effectively Interlinking Current CBY Treasury Operations to the General Administration for the Management of the Public Account (GAMPA) at the MOF; in A Manner That Would Allow the MOF Team to Access Information on Financial Allocations and the General Government Account*")

II. INITIATING A NEW CASH MANAGEMENT UNIT (CMU) AT THE MINISTRY OF FINANCE

In accordance with the budget execution action plan, ERLP has designed a new Cash Management Unit (CMU) structure to be established in the MOF.

The CMU will oversee the work relating to cash planning and cash flow forecasting. Based on the information provided by the CBY on the updated position of the treasury, the CMU will work in close collaboration with the CBY through the joint committee to provide monthly reports on the cash flow forecasting outlook. These reports will become the core reference for the MOF to update/revise all upcoming budget allotments and financial ceilings.

The CMU/MOF will also provide monthly reports, including the analysis of forecasted revenues, expenditures, and cash balance positions. These analyses will enable MOF to prepare a cash-management plan, considering the risks associated with unforeseen expenditures.

Cash-flow coordination activities will primarily focus on monthly cash-flow forecasting. A one-month cycle provides an opportunity to fine-tune the government cash requirements; and identify priority areas for payment, such as salaries of public sector employees, social benefits, and utilities. The monthly payment requirement will also be established for debt servicing and other high-priority payment areas.

The cash forecasting instruments will help streamline public financial management. The revised budget execution cycle will proceed as follows, after integrating the cash forecasting instruments:

- Each SU will prepare an expenditure plan at the start of the year in preparation for the new budget. Each SU will also prepare a revised operational expenditure plan every three months. The MOF will review the updated expenditure plans presented by the SUs before updating the budget allotments every quarter.
- MOF will prepare the annual budget allotments at the start of the year based on the budget law and an Annual Cash Forecasting Plan (the newly established cash management instrument). Every three months, the MOF CMU will update the Quarterly Cash Management Plan, which will help the MOF conduct the quarterly revision and update of cash allotments. This will be done in a more realistic way than previously possible because this revision will be based on actual cash flow positioning.
- If it appears from the initial projections that there may not be enough cash available within a given quarter to cover expenditures, MOF can either try to delay some of the planned commitments on the expenditures side, speed up the collection of revenues, or both.

III. DEVELOPING A SET OF REGULATORY/OPERATIONAL GUIDELINES TO IMPROVE BUDGETARY ALLOTMENT, COMMITMENT-CONTROL, AND PAYMENT-AUTHORIZATION PROCESSES AT THE MINISTRY OF FINANCE

During the reporting period, Pragma/ERLP specialists developed an initial set of regulatory/operational guidelines to streamline budgetary allotment and commitment control functions across the budget execution cycle. These guidelines address the following budgetary control/tracking fault lines in the existing system:

- Efficient mapping-out of budget allocations in the absence of a clear in-year budget execution plan
- Lack of an efficient and effective commitment control function
- Absence of detailed, reliable, and timely data on budget execution

The new regulatory/operational guidelines will ensure the following:

- Budget allocations transition from twice annually to a monthly cycle. A monthly budget allocation cycle helps better align cash inflows with cash outflows. The monthly cycle also facilitates a timely settlement of high/urgent-priority commitments and streamlines the reporting practices within the spending units.
- Consolidating the commitment control function to ensure that the spending units are not exceeding their budget allocations. At present, the MOF delegates one representative in each spending unit, with the primary focus of ensuring compliance and recording financial transactions. However, this technique is highly inefficient because there is only one representative per unit overseeing all the financial transactions. Notes are taken manually, which causes delays when reverting the information back to the MOF.
- The newly designed commitment control system will include the following parameters:
    - Preventing spending units from signing contracts and entering into other obligations that would exceed their allocated budgets.
    - Establishing consistent documentation of all payment/financial transactions and creating a reliable database through which data are extracted from each spending unit and are sent back to the MOF in a consistent and timely manner.

- Reserving budget allocations based on financial commitments recorded by MOF in a manner that ensures effective coordination with the cash management.
- Developing effective sanctions in the case of violations of one or more commitment control determinants predefined by the MOF.

IV. TARGETED TRAINING ON CORE BUDGET EXECUTION FUNCTIONS DELIVERED ON-SITE TO FIFTEEN PARTICIPANTS FROM THE MINISTRY OF FINANCE

The project conducted five on-site training sessions to fifteen mid/upper-level senior MOF staff focused on budget implementation. The training material was designed to address the following core targets:

1. Providing a better understanding of the budget execution cycle
2. Presenting common best practices for budget pre-planning/planning cycles
3. Ensuring better implementation of effective commitment control functions
4. Presenting different cash flow forecasting techniques
5. Discussing the importance of developing Treasury Single Account (TSA) reforms within CBY

The training sessions promoted dialog with the MOF counterparts. Discussions covered the immediate gaps in the system preventing the MOF from securing effective control over public financial management. Examples from international experience were also provided and reviewed in-depth. The immediate feedback received from the participants confirmed that the training has helped to significantly improve the MOF staff's overall understanding of the existing gaps in the system and the required reforms. Moving forward, it will prove extremely important that additional structured and On-The-Job training efforts be continued to ensure further momentum towards full implementation of better practice-compliant budget execution guidelines & practices.

Table 32: Summary of Training Courses

1.	***Expenditure Cycle*** • Approved budget • Budget apportionment and budget allotment • Commitments • Receipt of goods and services • Invoice • Payment • Consumption • Accounting and Reporting • Role of the MOF in managing the Expenditure Cycle
2.	***Implementing an Effective Commitment Management System*** • Identifying different types of commitments • Legal requirements • Planning commitments • Recording commitments • Integrating commitment controls into the financial management system • Pre-requisites for a successful commitment management system
4.	***Implementing Treasury Single Account (TSA)*** • Objectives of TSA reforms • TSA coverage • Different types of TSA design • Receipts, payments, and accounting under the TSA

	• Cash management • Success factors for the reform implementation
5.	***Conceptual design of a Government Financial Management Information System (GFMIS)*** • What is the conceptual design of GFMIS? • GFMIS scope and coverage • GFMIS and budget management framework • Business processes for GFMIS • Reporting requirements • Preparing, coordinating, and reviewing the conceptual design for GFMIS
6.	***Related Topics*** • Fiscal reporting – templates and organization • Bank reconciliation of government accounts • Strengthening payroll payments

1.3 STRENGTHENED TRADE FACILITATION POLICY DEVELOPMENT AND IMPLEMENTATION

The Trade Facilitation (TF) subcomponent works to reduce trading costs/delays and corrupt practices and increase transparency to integrate Yemen into the global trading environment.

Group photo for the NTFC members convened in the inaugural event at the MoIT, Aden, April 6, 2021

This is being achieved by continuing to introduce modern trade facilitation measures (per the WTO Trade Facilitation Agreement-TFA), digitalizing trading procedures, and reducing the number of documents and non-tariff barriers to trade. These targeted actions will serve on an ongoing basis to (i) facilitate the flow of essential goods into Yemen, particularly humanitarian aid, food products, and critical medical supplies for countering COVID-19; (ii) enhance the competitiveness of Yemeni producers, particularly SMEs; and (iii) promote Yemeni exports. ERLP also focuses on the longer-term development of port services in Gulf of Aden ports to achieve targeted operational improvements.

During this quarter, the ERLP undertook a range of activities to reduce clearance and dwell times and trade costs, enhance public-private partnerships, and enable greater port efficiency through streamlining port logistics.

1.3.1 TRADE FACILITATION

QUARTERLY WORK ACTIVITIES AND DELIVERABLES

The Trade Facilitation component of the ERLP project focused on implementing the TFA, including establishing the NTFC, enhancing and operationalizing the Yemen Trade Portal, expanding and enhancing the AEO Program, further developing Risk Management, Post-Clearance Audit, and Valuation Capabilities. ERLP addressed cross-border cooperation and developed the capabilities and capacity of the Customs Training Center.

Table 33: Q2 Trade Facilitation Activities and Deliverables

<table>
<tr><th>Activities</th><th>Deliverables</th></tr>
<tr><td>Work with the Ministry of Industry and Trade to promote and enable the adoption of the draft decision for the formal establishment of the NTFC</td><td rowspan="14">1. NTFC decision adopted.
2. AEO regulations adopted.
3. One AEO training event to YCA delivered.
4. Two events on customs risk management delivered.
5. Two events on customs valuation
6. Two events on Post-Clearance Audit
7. Four trade procedures digitalized and e-enquiries and e-consultations integrated into trade portal
8. Post-Clearance Audit Unit Established
9. Advanced Guidelines risk-based food control.
10. Two training events on food risk-based control.
11. Regulations on Advance Rulings developed.
12. Needs Assessment for Advance Rulings conducted.
13. One training event on Advance Rulings delivered.
14. Administrative appeals procedure developed.
15. One training event on Administrative Appeals delivered
16. Modality for integrated border management developed.
17. Assessment of current cross-border cooperation developed.
18. Needs Assessment for Customs Training Center and E-Learning completed
19. Four training modules developed.
20. Updates to National Oceanographic and Atmospheric Administration (NOAA) on fishery industry to facilitate registration of Yemen fisheries.
21. Registration of Yemen fisheries in the List of Foreign Fisheries completed.
22. One focus Vessel Exercises completed for improving performance.
23. Two training seminars on port operation practices delivered.
24. Recommendations developed for reorganization of container yard operations for greater efficiency.
25. Standard operating procedures related to marine services and logistics developed.
26. Two training modules developed for the Maritime Training Center.</td></tr>
<tr><td>Develop necessary regulations and forms for expanding AEO</td></tr>
<tr><td>Build capacity on AEO</td></tr>
<tr><td>Develop Risk Management, Post-Clearance Audit, and Valuation Capabilities</td></tr>
<tr><td>Enhance and Operationalize Yemen Trade Portal</td></tr>
<tr><td>Institute Advance rulings</td></tr>
<tr><td>Institute Administrative Appeals</td></tr>
<tr><td>Bolster Coordinated and Integrated Border Management</td></tr>
<tr><td>Facilitate Cross-border cooperation</td></tr>
<tr><td>Develop the Capabilities and Capacity of Customs Training Center</td></tr>
<tr><td>Continue with the registration and document updating of Yemen fisheries to the U.S. market.</td></tr>
<tr><td>Support Port Productivity Improvements at the Port of Aden</td></tr>
<tr><td>Modernize Terminal Operating System at the container terminal</td></tr>
<tr><td>Build the Capabilities and Capacity of the Maritime Training Center (MTC)</td></tr>
</table>

I. TRADE FACILITATION AGREEMENT IMPLEMENTATION

NTFC Draft Decision Submitted to the Council of Ministers and Adopted

This quarter, the ERLP TF component continued to provide the Ministry of Industry and Trade (MOIT) with technical, policy, and regulatory guidance on broad-based trade facilitation reforms. The project assisted MOIT in finalizing a proposal for establishing a National Trade Facilitation Committee (NTFC), which the new Minister enthusiastically supported. In March 2021, the Minister of Industry and Trade issued Ministerial Resolution 12-2021, formally establishing the National Trade Facilitation Committee (NTFC).

The establishment of the NTFC, a requirement under the WTO TFA, represents a major step forward that can greatly accelerate the implementation of critical trade facilitation reforms in line with WTO and enhance public-private dialogue. The NTFC is comprised of representatives from 11 public entities and the private sector.

ERLP further assisted the NTFC in organizing its first/inaugural meeting, including drafting the meeting's agenda and facilitating discussions on the way forward, including a multi-year action plan on trade facilitation reforms in line with the TFA. The project will assist in establishing the NTFC Secretariat to facilitate the work of the Committee.

II. EXPANDING AND ENHANCING THE AEO PROGRAM

Building on the success of the USAID-supported AEO Trusted Trader (TT) program launched in 2019, ERLP initiated an extended TT program that will enable Yemen Customs Authority (YCA) to integrate key SAFE supply-chain security best practices into existing customs procedures. The scope of the extended program will include importers, exporters, customs brokers, and carriers.

During this quarter, ERLP conducted a two-day expanded Authorized Economic Operator (AEO) webinar workshop on January 5-6 for YCA managers. The workshop provided attendees with an opportunity to discuss, review, and validate draft regulations prepared by project experts to support expanding the existing AEO program to cover importers, exporters, customs brokers, freight forwarders, carriers, and warehouse operators. The workshop also provided an opportunity to discuss and agree on an expanded AEO implementation plan to be submitted to YCA Senior managers.

III. ENHANCE AND OPERATIONALIZE THE YEMEN TRADE PORTAL

During this quarter, the project made steady progress toward the development of the Yemen Trade Portal (TP), which will provide: (i) information to traders about trading requirements, thus enabling greater transparency in the trade environment; and (ii) allow traders to electronically apply for trade regulatory documents (permits, certificates). Specifically, during the quarter, ERLP completed the following:

- Developed scripts for daily backup of the TP website.
- Digitalized import permits by the Ministry of Culture (MoC) and Ministry of Information (Moinfo) covering Cinema/movies/photo materials stored on different media – tapes, CD, DVD, USB memory, HDD storage; printed and published materials including books; printed religious books or stored on media – tapes.
- Digitalized import and export permit of fish and fishery products: by the Ministry of Fish Wealth (MFW) covering fresh and live fish; chilled (on ice); chilled (refrigerator); and frozen fish.
- Prepared the TP installation files for the production environment: the TP database and VB/.NET system installation scripts, English and Arabic XML language files, Active Server Pages scripts,

Java applets (dynamic menus), and the security environment (register user, login/change password, concurrent user scripts).

IV. DEVELOP RISK MANAGEMENT, POST-CLEARANCE AUDIT, AND VALUATION CAPABILITIES

Post-Clearance Audit (PCA)

As part of its efforts to reduce the time and costs of moving goods across the borders, the ERLP/TF component has been working closely with the YCA to build a Post Clearance Audit (PCA) capacity.

During this quarter, the ERLP conducted a two-day webinar on January 13-14 on Post-Clearance Audit (PCA) in Aden on enhanced customs control techniques for Yemen Customs Authority staff. Participants were introduced to World Customs Organization PCA concepts. They gained a better understanding of the importance of PCA as an integral part of customs risk management processes and trade facilitation.

The project also delivered a second training-of-trainers (TOT) session on February 7-8 on Post-Clearance Audit (PCA) and a third on customs valuation for relevant Yemen Customs Authority (YCA) managers. The training activities seek to develop cadres of trainers capable of designing and delivering basic technical training in key operational areas and according to the Customs Valuation Agreement between the YCA and WTO. Training participants reviewed and validated draft PCA/customs valuation training modules and discussed options for their future delivery.

The new YCA Chairman made an unexpected visit to the training venue to underscore the importance of the ERLP PCA TOT initiative. Additionally, in recognition of sustained ERLP institutional capacity-building support, the Chairman awarded a Certificate of Appreciation to Pragma staff in Aden on Customs Day. The Minister of Finance, Aden Governor, and other high-ranking public officials and private sector representatives were in attendance.

Following the USAID/ERLP continued support to YCA, the new Chairman established a PCA Unit at YCA and appointed a former ERLP-trained female officer as PCA manager.

ERLP/TF experts produced draft regulations on post-clearance audit (PCA), designed to the YCA's capacity to introduce new reforms and regulations to reduce the time and cost of moving goods across borders. The report should also help the YCA establish a solid legal framework that will enable YCA auditors to conduct desk and field audits more effectively. The framework includes:

- a definition of PCA coverage (economic operators subject to PCA).
- the procedures for carrying out Desk and Field audits.
- the Authority to access and inspect auditee's premises; examine their business records, business systems, and commercial data relevant to Customs declarations; to uplift and retain documents and business records; and the right to inspect and take samples of goods.
- a requirement for auditees to maintain specified documentation, information, and records for a specified period of time; a requirement to make such documentation, information, and records available in a timely manner; and an obligation to answer questions on matters relating to their activities.
- an economic operator's rights to appeal an audit decision; and
- an obligation on YCA officers to treat business information and documentation confidentially.

Customs Valuation

ERLP delivered a third TOT session on February 10-11on customs valuation for relevant YCA managers. The training activities seek to develop cadres of trainers capable of designing and delivering basic technical training in key operational areas and in accordance with the WTO Customs Valuation. Training participants reviewed and validated the draft customs valuation training module and discussed options for their future delivery.

RISK MANAGEMENT (CUSTOMS, YSMO/TBT, AND PPD)

I. YEMEN CUSTOMS AUTHORITY - RISK MANAGEMENT UNIT

This quarter, the project delivered a two-day, blended training workshop/webinar on January 26-27 to 12 officers from YCA's Risk Management Unit. The workshop trained officers in the application of the World Customs Organization's risk management methodology. The WCO methodology is adapted from the Revised Kyoto Convention to facilitate legitimate trade and increase the efficiency of customs control.

Further, ERLP delivered a risk management TOT workshop/webinar on February 3-4 for six YCA staff members to enhance their capacity to design/conduct basic risk management training for YCA officers. Participants reviewed/validated a draft risk management training module and detailed future training priorities.

II. YEMEN STANDARDIZATION AND METROLOGY ORGANIZATION (YSMO) – RISK MANAGEMENT

ERLP also delivered a blended training workshop/webinar on February 1-2 on 'Modern Risk-Based Food Controls.' This was provided to 12 staff of the Yemen Standardization and Metrology Organization (YSMO). The workshop included a major focus on the role of YSMO in supporting exports. It also focused on improving communications between YSMO and importers/exporters regarding standards, particularly related to exports of honey, coffee, seafood, fruits and vegetables, and processed goods.

The main goal of this training was to introduce a critical set of steps for YSMO to embark on supporting the food industry and understanding and adopting modern risk-based food standards from farms to packing facilities. Through this training, YSMO and the food industry had access to a thorough review of what it takes to comply with public and private export standards by analyzing the basic pillars common to all such food safety standards.

A team of 11 individuals from the YSMO attended. Three of the trainees were border-crossing officers along the Saudi Arabia and Oman borders, directly involved in product inspections. Other trainees oversee different units such as Quality Assurance, Training and Development, Grain Quality Inspections, Good Manufacturing Practices, YSMO Information, and Communications Technology, and border inspectors.

The trainees addressed concerns about the role of YSMO in supporting exports, including the need to improve communications with importers and exporters about standards and reasons for rejections. Attendees also learned about rejected Yemeni products abroad for a variety of non-compliance reasons. Part of the main discussion revolved around the role of private standards in Yemeni exports and how YSMO could support those efforts in the near term, particularly concerning honey, coffee, fisheries, fruits and vegetables, and processed products for export. A commitment was made to engage the private sector in future training programs and dialogue further with YSMO senior management. The YSMO official website https://www.sabanew.net/viewstory/71604 posted a statement demonstrating enthusiasm to continue working on a joint development agenda to facilitate trade as well.

III. PLANT PROTECTION DEPARTMENT - RISK MANAGEMENT

The project team organized a 2-day training webinar on March 24-25 on advanced phytosanitary control guidelines and risk-based sampling of imported commodities for 13 border inspection officers in the Plant Protection Department (PPD). In this regard, it should be noted that preventive, risk-based phytosanitary control systems can minimize operational costs and optimize the overall efficiency of inspections.

The project also completed a set of guidelines customized towards the risk management/compliance needs of PPD border inspection personnel. This training dealt with risk-based sampling processes, which can help Yemen focus on specific risks, minimize costs for operations, prevent rather than react, and optimize the overall efficiency of inspections. Controlling phytosanitary pests has in this regard in general moved from "reactive" to "preventive" measures at an international level.

The training was used to show the necessary shift to risk-based food inspection, its benefits, and how it may require significant changes to existing food inspection practices and inspector training programs. The training aimed to strengthen risk-based food inspection systems for plant, animal, and human health and other grades and standards. This training dealt mainly with risk-based sampling processes. These can help focus on specific risks, minimize costs for operations, prevent rather than react, and optimize the overall efficiency of inspections. Discussions were again held on moving away from "reactive" to "preventive" phytosanitary control systems based on risk-based sampling, which has the potential to increase the efficiency of human, laboratory, and other related resources at PPD.

Ten attendees (six in person and four remotely) were present, with whom the challenges and opportunities to adopt these modern approaches to inspection were discussed in detail. The training also provided the opportunity to develop a plant health inspection procedure for clove imports from Indonesia and Singapore into Yemen to illustrate the process discussed in class. The suggestion of a full manual of inspection procedures for target products following these guidelines was deemed to represent a key follow-up priority for the next quarter as well.

IV. INSTITUTE ADVANCE RULINGS

This quarter, ERLP/TF experts drafted Advance Ruling (AR) regulations; based on the results of a questionnaire developed and administered by the team last month. The principal objective of AR is to deliver decisions on the classification, origin, and valuation of commodities prior to their import/export, thereby enhancing certainty and predictability for trading activities and related business decisions. The new regulations strictly follow WTO TFA and WCO Revised Kyoto Convention (RKC) protocols.

AR programs are a proven trade facilitation tool that reduces trading costs and delays, increases transparency and predictability, and reduces disputes between traders and Customs. Economic operators obtain precise and binding information in advance of importing goods, allowing them to plan their operations with certainty.

Disputes with the Customs authority on tariff, origin, and valuation issues are reduced since the deliberation process among officials has taken place before the issuance of the AR.

AR programs also yield significant benefits for the government. By providing information that Customs requires for deciding tariff classification, origin, or valuation issues prior to the arrival of the imported goods, Customs has additional time to consider, consult, and make informed decisions on the specifics of individual cases. ARs can increase cooperation and build confidence between economic operators and Customs by promoting consistency and uniformity in treating importation across all customs points in the country. An AR training event has been arranged with YCA managers and staff to take place on April 4, 2021, when the draft materials will be discussed and validated. An activity plan was initiated to support the introduction of AR in Yemen.

V. INSTITUTE ADMINISTRATIVE APPEALS

It is critical for YCA and economic operators involved in international trade that any disputes regarding compliance with the Customs law and regulations are addressed and resolved quickly and efficiently. This requires a comprehensive, transparent, and effective administrative appeal procedure, which provides an alternative dispute resolution mechanism to pursuing court cases.

In this regard, ERLP completed a review of the YCA administrative appeal process this quarter. The review included a comparison of the existing legislative basis for administrative appeals with international best practice standards. The comparison highlighted the need to provide a more transparent, simplified, and consistent review and appeals process at the YCA.

An Administrative Appeal training event has been arranged with YCA managers and staff to take place on April 7, 2021. The draft materials will be discussed and validated at this time, along with an activity plan to support the introduction of enhancements to the YCA administrative appeal process. Attendees will also be provided with details of the review and appeal requirements of the WTO TFA, Article 4, and related RKC provisions.

VI. BOLSTER COORDINATED AND INTEGRATED BORDER MANAGEMENT

Border Agency Cooperation

The project team completed a draft situation analysis report on the level of coordination and integration of Yemen's multiple national border agencies to facilitate the smooth movement of goods into/out of the country. Report recommendations reflect international best practice principles to bring border control mechanisms and procedures into conformity with the WTO TFA agreement. A series of follow-up meetings will be organized over the coming weeks with the YCA and other government agencies to discuss relevant measures in this area that can be adopted over the short and medium-to-long term.

VII. FACILITATE CROSS-BORDER COOPERATION

This quarter, project experts assessed current cross-border cooperation between Yemen Customs and Saudi Customs to identify possibilities for joint cross-border controls. The report looks at the development of cooperation between Yemen Customs and the neighboring countries' Customs authorities. Cross-border cooperation will facilitate the movement of goods at Border Crossing Points (BCP) and eliminate redundant processing and physical checks. In this regard, the WTO TFA and WCO RKC strongly recommend that all members of customs authorities cooperate and coordinate border control and procedures to facilitate trade.

VIII. DEVELOP THE CAPABILITIES AND CAPACITY OF CUSTOMS TRAINING CENTER

Customs administrations need to invest in their human resources in a fast-changing environment to deliver on the trade facilitation priorities set for them by the government. To achieve this, they need to establish a cadre of professional customs officers who can efficiently perform their duties. This requires that officers acquire and develop a wide range of skill sets, knowledge, attitudes, and behaviors through a comprehensive and complex learning process.

This quarter, ERLP conducted and presented to YCA a targeted needs assessment supporting the establishment of a customs training center with an e-learning platform in Aden. This assessment described the steps to be undertaken to build the training, learning, and development capacity within the YCA in Aden and other legitimate government-controlled areas over the coming years.

The team has also developed a competency-based training strategy for the center, designed to rebuild the capacity of YCA staff (eroded by years of civil war and current pandemic). Improving staff knowledge and professionalism will better enable the Authority to meet its revenue collection and trade facilitation policy objectives. Four core training-of-trainer (TOT) events covering Induction (on February 14-15), RM, Valuation, and PCA training were provided, with participants reviewing and validating draft training modules for future delivery by YCA trainers.

IX. FACILITATE EXPORTS TO TARGET MARKETS

During this quarter, ERLP completed a thorough analysis of regional trade flows from 2018 to 2020. Preliminary findings conclude that Yemen continues to have a clear competitive advantage in the frozen seafood and honey sectors. The team's analysis will be summarized in a report (developed in coordination with the SL/ML team) that will inform the private sector on how to strategically approach identified market opportunities, particularly regarding required grades and standards.

The recent research conducted by ERLP underscores that Yemen remains competitive in price and quality, being an active player with sizable shipments to the U.S. However, it appears that European fresh fish markets no longer present an attractive possibility for Yemeni exporters. In addition to frozen fish, up-to-date data on honey shipments to the U.S., Canada, and other destinations also showed promising opportunities for expansion, given the country's reputation for quality. The trade flow assessment was accompanied by information on required grades and standards informing the private sector on effectively approaching the identified opportunities.

The data obtained for this assessment provide additional windows of information into the Middle East/North Africa (MENA) trade dynamics. Future meetings will provide additional trade flow assessments for commodities of interest to the Yemeni private sector.

This information will also contribute to the elaboration of export guidelines geared toward the private sector in a manner that enhances the ability of processors to meet international requirements for grades and standards, provide capacity building in understanding and applying standards, and improve market access overall. To further promote the competitiveness of Yemeni producers/exporters, the project also provided the U.S. National Oceanic and Atmospheric Administration (NOAA) with additional information required for the registration of 17 Yemeni companies; under the Marine Mammal Protection Act (MMPA)/List of Foreign Fisheries (LOFF). In addition, the registration of Yemen fisheries in the List of Foreign Fisheries was completed this quarter.

The U.S. National Oceanic and Atmospheric Administration (NOAA) is the agency in charge of enforcing import provisions required for all countries interested in exporting seafood to the U.S. market to mitigate marine mammal (cetacean species) bycatch. Following the webinar "Application for Comparability Findings" organized by NOAA, the TF team consulted with NOAA regulatory officers to confirm the process followed in registering Yemen fisheries.

Yemen's artisanal fishing practices have zero likelihood of bycatch of cetacean species as reported by current exporters. Nevertheless, the learning of bycatch mitigation is necessary knowledge for all seafood exporters to the U.S. market. Follow-up activities in the next quarter will focus on informing Yemeni exporters about the strategies used by other nations to address cetacean bycatch issues.

1.3.2 TRANSPORT AND LOGISTICS

QUARTERLY WORK ACTIVITIES AND DELIVERABLES

The ERLP Transport and Logistics team supported port productivity improvements, reorganized the ACT container yard, and conducted the first focus vessel exercise. Furthermore, the team supported the Project Implementation Unit in improving port infrastructure, enhanced marine services and logistics, developed a port community system and website, promoted the elimination of road transport monopoly, and built the capabilities and capacity of the Maritime Training Center.

Table 34: Q2 Transport and Logistics Activities and Deliverables

Activities	Deliverables
Support Port Productivity Improvements at the Port of Aden Modernize Terminal Operating System at the container terminal Build the Capabilities and Capacity of the Maritime Training Center (MTC)	1. One focus Vessel Exercises completed for improving performance. 2. Two training seminars on port operation practices delivered. 3. Recommendations developed for reorganization of container yard operations for greater efficiency. 4. Standard operating procedures related to marine services and logistics developed. 5. Two training modules developed for the Maritime Training Center.

I. SUPPORT PORT PRODUCTIVITY IMPROVEMENTS

During this quarter, the team has advised the Aden Container Terminal Operations and Planning Departments on terminal efficiency and best practices for yard operations and organized and delivered the first Focus Vessel exercise to determine the baseline for current operations.

II. REORGANIZATION OF ADEN CONTAINER TERMINAL (ACT) CONTAINER YARD

ERLP assessed container yard operations to help ACT operations and planning departments to improve efficiency based on best practice standards. The assessment captured the current operational state of the ACT to establish baseline performance, identify potential opportunities for improvements, and develop performance improvement recommendations for the yard.

This process started by reviewing current operational practices at the ACT to identify where changes could be made to improve container handling practices and procedures between the quay, yard, and exit/entry gates. At the time of the assessment, the container yard was stacked at 80 - 90 percent capacity, with an average of 86 percent, resulting in congestion. During the process of discharging containers, yard occupancy sometimes exceeded 100 percent. This results in containers temporarily being stacked in unofficial stack locations, with associated risks of containers getting lost. This high yard occupancy was due to the consignees leaving their containers in the port for extended periods of time.

Fifteen recommendations for reorganization of ACT yard were made. These, for instance, included giving discounts for early pick-up of containers by consignees, and allocating a higher number of terminal tractors to each crane, and studying whether creating back-to-back container stacks can be used to improve yard capacity. These and other recommended measures listed below were discussed with the ACT staff during the webinar.

(See "*Macro – Annex 26 - Recommendations for Container Terminal Ops – Yard Efficiency (#20-051)"*)

III. FIRST FOCUS VESSEL EXERCISE

The first Focus Vessel Exercise helped create a coordinated approach from all stakeholders in the berthing, cargo exchange, and departure process of the vessel to minimize berth times and maximize ACT productivity. The concept is that a container ship is pre-selected, well in advance, to be the "Focus Vessel." All stakeholders participate in a planning meeting (held in February) to coordinate what is required from each stakeholder to deliver a pre-defined port stay target time; based on a target level of crane productivity for handling a given volume. Upon completing the operation, a post-operation meeting is held to identify failures/areas for improvement for the next Focus Vessel.

The first Focus Vessel exercise was conducted between March 5 and 16, 2021, on the CALLIOPE, Voyage No. 2103. The targeted stakeholders included the ACT team (management, operations, planning, and equipment maintenance) to set the baseline to determine where the operation currently is and prepare for a second focus vessel that will include more stakeholders. The recommendations from the first focus vessel report highlight opportunities for the ACT to implement changes for the next focus vessel.

ERLP delivered a half-day webinar on findings in the fourth week of March. The Deputy Chairman, Heads of the Operations and Planning Departments, with their key departmental personnel, were in attendance. Ten main recommendations to achieve higher berth and crane productivity were discussed, with the goal of applying as many changes as possible to the next focus vessel. This, in turn, would serve to highlight the potential best practice-compliant improvements that could be achieved moving ahead.

The recommended changes include implementing cut-off time for containers to be loaded, focusing on twin lifts, and reconfiguring export stacks. Recommended changes also include increasing storage rates for full import containers and supporting low terminal tractor allocation due to lack of equipment unconventional methods at the yard. Changes to the yard layout to improve productivity have also been recommended.

Adopting the Focus Vessel recommendations will continue to be discussed with key ACT staff in the next quarter as well.

IV. MODERNIZATION OF THE TERMINAL OPERATING SYSTEM (TOS)

The recommendations made this quarter to assist the operations and planning teams responsible for the day-to-day management of the ACT have focused on improving current practices and helping address at a practical level the problems they face in delivering core services. These prominently include the need for the TOS to have real-time connectivity with the yard. In this regard, ERLP recruited a network design expert to assist ACT management in designing a new fiber-optic-based network for container operations. This type of network is essential for the electronic transfer of data from the container yard to the TOS using Vehicle Mounted Terminals (VMTs).

In parallel, the ACT and Port are currently in discussions with the suppliers on modernizing their existing Zodiac TOS. In March, they completed a detailed questionnaire on core aspects of the terminal operation to better inform Zodiac as a basis for the design of the packages needed in the new TOS.

V. SUPPORT THE PROJECT IMPLEMENTATION UNIT (PIU) IN IMPROVING PORT INFRASTRUCTURE

Following the work done in the previous quarter, ERLP worked with the Aden PIU to select a supplier for the VTMIS. The supplier selection process has now been completed, and installation of the VTMIS in the Aden Control Tower is expected in 2021. This, in turn, is expected to increase the level of control of shipping and port security. Data generated by the VTMIS on ship arrivals, berthing, and departure will be used, as appropriate, to provide real-time updates for the Port website and show ship positions on the site. The team has been working with port management and the UKHO to identify an appropriate electronic chart format during this quarter. This should allow the navigation chart of port approaches, with ship positions superimposed on this, to be adapted for use on the website.

Following the visit of a delegation from the Port of Rotterdam to Aden and Mukalla in November to collect materials for a Damage and Capacity Assessment report for the two ports, ERLP provided UNDP with additional information on cargo flows through the various ports. This served as part of the UNDP's fact-checking' exercise in March 2021.

A new light for the Elephants' Back Lighthouse was delivered to the Port in the previous quarter. Port engineers and technicians were trained on installing the equipment, including the method for accurately setting the correct angles for the red sectors of the light proposed by the team. The Port intends to install the light for testing temporarily and remove it after testing pending security guarantees to be agreed with the Government. Re-establishing this important navigation aid will provide a significant improvement to ship safety in port approaches.

Proposals for improving port infrastructure relating to a revised yard layout for the ACT are referenced above under I Support Port Productivity Improvements.

VI. ENHANCE MARINE SERVICES AND LOGISTICS

The provision of efficient marine services by marine craft and pilots to get ships to and from their berths is critical to the effective use of available berths. In this regard, ERLP recently completed an audit of the Marine Operations Department at Aden to assess the current status of marine craft, marine craft maintenance, and related staff training. The team's assessment findings include a series of recommendations aimed at improving the department's maritime operations. This analysis will be bolstered by ERLP training materials and SOPs already developed or under development. The audit made recommendations on a wide range of issues, including VTMIS, pilot and tug crew training, succession planning, new marine craft for the port, navigation aids, hydrographic surveying of the harbor area, and dredging.

(See "*Macro – Annex 27 - Port Due Diligence-Marine Audit (#20-051)"*)

The project completed the development of new SOPs on marine services logistics as well. The SOPs aim to increase safety and efficiency, cover pilotage, pilot boat skippers and crew, tug operations, towing, safety and fuel management, mooring operations and procedures, and VTMIS integration into port operations.

VII. DEVELOP A PORT COMMUNITY SYSTEM (PCS) AND WEBSITE

During the quarter, ERLP provided Port Management with details of Port Community Systems (PCS) used in the ports of Djibouti and Jamaica; and further developed the Roadmap showing how Aden could introduce a PCS for the Port. The Port decided that its priority at present is to establish a Maritime Single Window (MSW) to implement FAL Convention requirements in cooperation with the YCA.

ERLP has continued to work with the Port Website teams in Amman and Aden to refine further and test the functions provided by Phase II of the site, using real ship data. Testing the online Notification of Arrival (NOA) form to allow ships and their agents to apply for port entry electronically, as required by the IMO FAL Convention, continues. Phase I of the website informs port users and the international community on developments at the Port.

VIII. PROMOTE THE ELIMINATION OF ROAD TRANSPORT MONOPOLY

During Q2, ERLP continued to gather further information on the costs and issues affecting road transport in Yemen. The team discussed with a leading stevedore in Ma'alla the impact on overall costs of traders electing to move their cargo from the Ma'alla Terminal and shift it to their storage warehouses and yards on the outskirts of the city. From these facilities, the traders can use non-union trucks to move cargoes to end-users. An example of this is the Egyptian-Yemeni company CESCO that owns three cement-carrying ships and bulk cement trucks that take the cement from the ship's side to their bagging plant on the outskirts of Aden: for bagging and onward distribution to clients.

One key transport issue in Aden that was recently is the restriction on the use of city roads by trucks serving the Ma'alla Terminal. The rapid increase in the size of the population in Aden after 2015 has resulted in pressure on road space in the city. Trucks are currently prevented from using the city road system between 0700-1400 and 1600-2200 each day. This has an impact on the times at which trucks can move their cargoes out of the terminal. However, the restrictions do not appear to affect the Ma'alla cargo handling figures, which remained strong at over 11,200 MT/day through the first three months of 2021.

As noted in the previous quarterly report, the team has collected data on road transport costs in the Yemen Food Supply Chain, contributing to the report prepared by the Mercy Corps and ACAPS Analysis Hub (which reported these costs as 4 percent of the final cost of flour. For comparison purposes, the team obtained industry costs of truck transport of a similar commodity in Mexico: Fifty kg sacks of dried beans from an inland warehouse to be loaded onto a ship 1,100km from the point of origin. The transport costs reported represented 8.8 percent of production costs.

IX. BUILD THE CAPABILITIES AND CAPACITY OF THE MARITIME TRAINING CENTER

Staff development is critically important to Yemeni ports. During this quarter, the Maritime Training Center (MTC) has provided training for VTS staff and Yemen Coastguard officers, arranged through the UN. It has also provided training in Personal Safety for marine craft officers. VTS training was provided for staff from Nishtun, Mukalla, and Aden to extend the impact of the MTC work to other Gulf of Aden ports. Pilot training and revalidation of Certificates of Competency for port pilots and harbor masters continues through the Arab Maritime Academy in Alexandria. At the instigation of the Assistant Harbor Master, the new ship simulator at the Academy has installed an electronic model of the Port of Aden and its approaches to provide specific training courses for Aden pilots.

During this quarter, the ERLP TF team has developed three training modules for pilot boat skippers, tug masters, and mooring boat operators, covering safe operating procedures. These provide PowerPoint presentations and text for use by MTC trainers to deliver courses to Marine Operations personnel.

1.3.3 CROSS-CUTTING

COVID-19 IMPACT

COVID-19 continued to severely impact ports and shipping around the world in early 2021, and many major ports have adjusted their working practices to deal with the virus. ERLP continues to monitor the daily updates from the Gulf Agency Company (GAC) on changes in regulations and working practices across world ports to see what the Ports in Yemen can usefully learn from these developments. The daily reports on ships at the anchorage provided by the Assistant Harbor Master at Aden continue to include details of ships that the Health Officials have visited and cleared to berth. Anchorage delays are no longer connected with delays due to COVID-19, and ships can, at present, berth 'on arrival.' Five of the 45 ships berthing at Aden in March 2021 berthed on the day that they arrived at the anchorage. The Port remains aware of the risks that COVID-19 presents to the port staff, and ships are required to take appropriate steps to prevent the spread of the virus to port personnel.

In early January, the Assistant Harbor Master confirmed that the Port requires the temperatures of all crew members to be checked when ships arrive, and the ship's accommodation sanitized.

QUARTERLY WORK ACTIVITIES AND DELIVERABLES

The Cross-Cutting component of the ERLP project focused on researching and addressing the COVID-19 impact. In addition, ERLP assisted in capturing and disseminating trade statistics, supporting international coordination and cooperation, and preparing and updating Trade Access Reports.

Table 35: Q2 Cross Cutting Activities and Deliverables

<table>
<tr><th>Activities</th><th>Deliverables</th></tr>
<tr><td>Facilitate International Coordination and Cooperation</td><td rowspan="3">1. Dialogue with international donors on topical port issues held; briefing notes issued.
2. Customs Revenue Report developed.
3. Baseline Survey of Trading Costs and Dwell Time initiated
4. Trade Access Reports Issued</td></tr>
<tr><td>Assist in Capturing and Disseminating Trade Statistics</td></tr>
<tr><td>Report on Progress in Collecting Customs Duties and Taxes</td></tr>
</table>

I. INTERNATIONAL COORDINATION AND COOPERATION

During this quarter, the ERLP continued to work closely with key figures in Aden's Port Management and shipping agencies and major traders to maintain awareness of ongoing developments in the ports and in shipping operations. Relationships continue to be maintained with the UNDP, the IMO, the FCDO, UKHO, PERSGA, Aid agencies, and the UKMTO. As reported in the previous quarter, the FCDO has transferred cargo data monitoring responsibilities to ACAPS in Geneva.

Since then, the project has continued the positive working relationship established in the last quarter with both the FCDO and ACAPS. It makes weekly contact with ACAPS to exchange information on ships and cargoes and produce an agreed set of monthly cargo figures. The team uses the UNVIM data and daily reports from Aden Harbor Control on ships at the anchorage and alongside to validate Agency data provided by WSS in cases where cargo figures or details are in doubt.

On March 15, 2021, the team held a meeting with the FCDO to discuss fuel import restrictions through Hudaydah, giving written insights into recent developments on these issues and fuel moved by truck from entry points in the gulf of aden to consumers in the north of Yemen. The briefing notes effectively informed the FCDO and its partners in their efforts to advocate for tankers to be permitted to call at hudaydah port with fuel.

II. ASSIST IN CAPTURING AND DISSEMINATING TRADE STATISTICS

Customs Revenue Report

ERLP/Fiscal and TF experts compiled a statistical report on customs revenues for October to December 2020, disaggregated by type of tax/duty and entry point. The customs revenue data will help ERLP effectively monitor customs revenues, track collections, and further contribute to improved revenue forecasting and budget planning (in close coordination with the ERLP/Fiscal Team).

Baseline Survey of Trading Costs and Dwell Time

ERLP completed the process of issuing Request for Proposal and selected Moore Yemen company to conduct a trade survey for establishing a baseline for measuring progress related to the following:

1. Average import cost at selected border crossings (Aden Port, Mukalla Port, Wadiya BCP, and Shahen BCP)
2. Average Export cost at selected border crossings (Aden Port, Mukalla Port, Wadiya BCP, and Shahen BCP)
3. Average dwell time for cargo passing through selected border crossings (Aden Port, Mukalla Port, Wadiya BCP, and Shahen BCP). The dwell time is defined here as the time frame from the arrival of cargo to the Port or BCP to its departure.

The survey and data collection process will start shortly after Ramadan, by late May.

III. TRADE ACCESS UPDATES

ERLP prepared and submitted Trade Access Reports in January, February, and March, designed to update data on imports of fuel, food, and other cargoes through seaports and across land borders. The team responded to questions raised by USAID and the FCDO relating to the impact of restrictions on fuel imports through Hudaydah -- and the growth in fuel imports through Aden, Mukalla, and Nisthun -- in reaction to the restrictions.

Container volumes through the ACT increased very strongly this quarter, reaching an average of 46,473 TEUs/month (compared with 35,504 TEUs/month in the first three months of 2020, i.e., 31 percent higher). At the same time, anchorage delays for container ships have dropped from an average of 18.4 days in December 2020 to just 3.4 days in March 2021. The balance between imported full containers and exported empty (and some full containers) has been good during the quarter, with an average of 22,143 TEUs/month imported and 23,840 TEUs/month exported. Removing an average of 1,700 TEUs/month from the yard this quarter has reduced congestion and augmented yard efficiency.

The Ma'alla Terminal has also performed well. Tonnages of general/bulk cargo handled at the terminal in Aden averaged close to 9,000 MT/day over the last six months of 2020. During this quarter, tonnages have reached over 11,200 MT/day (based on a 30-day working month), consisting mainly of clinker, steel, timber, cement, food, general cargo, and imported vehicles.

The private Hayel Saeed Anam terminal in Aden, the Aden Gulf Terminal (AGT), continues to make an important contribution to total port capacity at Aden. The company imported bulk wheat, palm oil, diesel fuel, and coal (a consignment of 55,000 MT) during the quarter. The company-chartered vessels in the 50,000 to 63,000 tons deadweight (TDW) range to discharge around 50 percent of bulk wheat cargoes at Aden, of up to 58,000 MT, before completing discharge of the balance at Hudaydah. This has helped reduce overall shipping costs significantly.

Container traffic at Mukalla reported by the YASPC website has increased rapidly during the time that Dhow support has been implemented, from 28,900 TEUs in 2018 to 42,750 TEUs in 2019 (a 148 percent increase), and to 56,700 TEUs in 2020 (an increase of 133 percent).

Mukalla imports bulk grain cargoes approximately every three months, with substantial tonnages of other foodstuffs and general cargo/building materials arriving by dhow. Dhow import tonnages are provided on the Yemen Arabian Sea Ports Corporation (YASPC) website and are now recorded in the ERLP Trade Reports.

This quarter's food imports through seaports have increased from 580,000 MT/month in the previous quarter, reaching 614,000 MT/month this quarter. The 12-month average food import tonnage as of end-March 2021 was 661,000 MT/month -- well above the 'food import minimum' figure currently used by international aid agencies of 565,000 MT/month. Land border food imports further raise the annual average monthly food import figure to 693,000 MT/month, 128,000 MT/month above the 'minimum.'

Restrictions on fuel imports permitted into Hudaydah during the quarter have resulted in only 89,500 MT being discharged over the whole of this quarter, compared with 454,000 MT in the previous quarter. However, imports at Aden and Mukalla over the quarter increased to compensate for the low tonnage at Hudayah, with total fuel imports in March through all ports reaching 445,000 MT -- compared with a 12-month average of 387,000 MT. The Hudaydah restrictions have resulted in fuel shortages in 'the north' and high levels of black-market fuel selling activity. Shortages are being partially met by fuel being moved by truck from the Gulf of Aden entry points (Aden, Qana'a, Mukalla, Nishtun) to 'the north.' National production at Marib of an estimated 120,000 MT/month is a further important contribution to diesel and LPG supplies for the country.

In January, ERLP reported the opening of a new fuel import facility at Qana'a, east of Bir Ali in Shabwa governorate. Fuel import activity at this site appears to be relatively high this quarter, using Ship-to-Ship transfer of fuel from larger ships to smaller tankers that can get close to the shore to discharge.

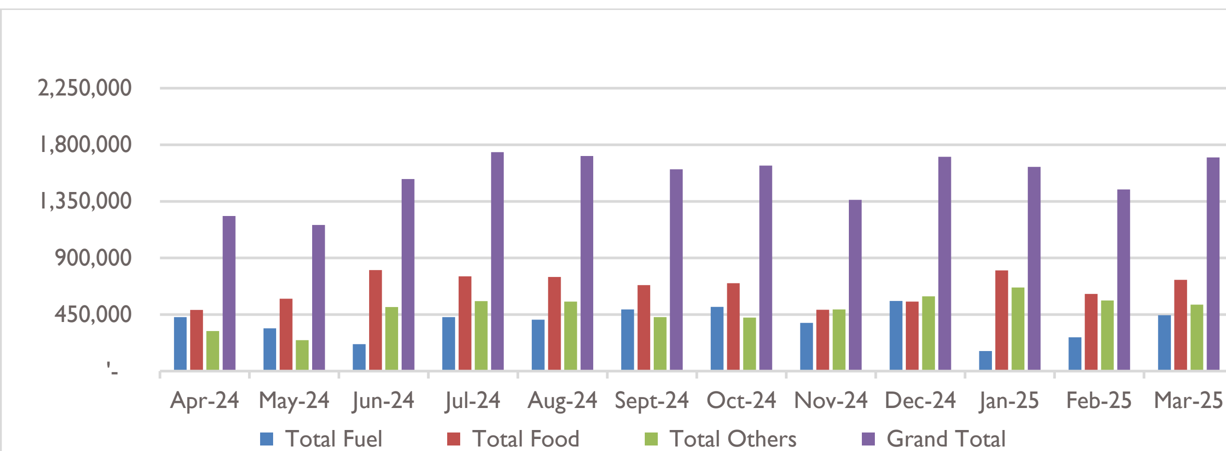
However, no data on the import tonnages are available at present. A number of the ships are reported to be carrying cargoes declared for Nishtun but unloaded at Qana'a. At Nishtun, a high level of tanker activity has been seen on AIS sites, with figures for fuel imports given on the YASPC website up to the end of 2020. Figures for 2021 will be revised when the website is updated.

Including the latest available figures for Mukalla and Nishtun, the monthly report for March records that imports via seaports have averaged 1,538,000 MT/month for the 12 months from April 2020 to March 2021. Aden, Mukalla, and Nishtun in the Gulf of Aden have, between them, been responsible for 66.96 percent of total seaport imports in 2020, while Salif and Hudaydah have handled 33.04 percent of Yemen's total port cargo.

ERLP has continued monitoring and reporting on the exports of crude oil through the terminals at Rudum and Ash Shihr, which were the same as the previous quarter (at 1.8 million barrels and 2.0 million barrels, respectively).

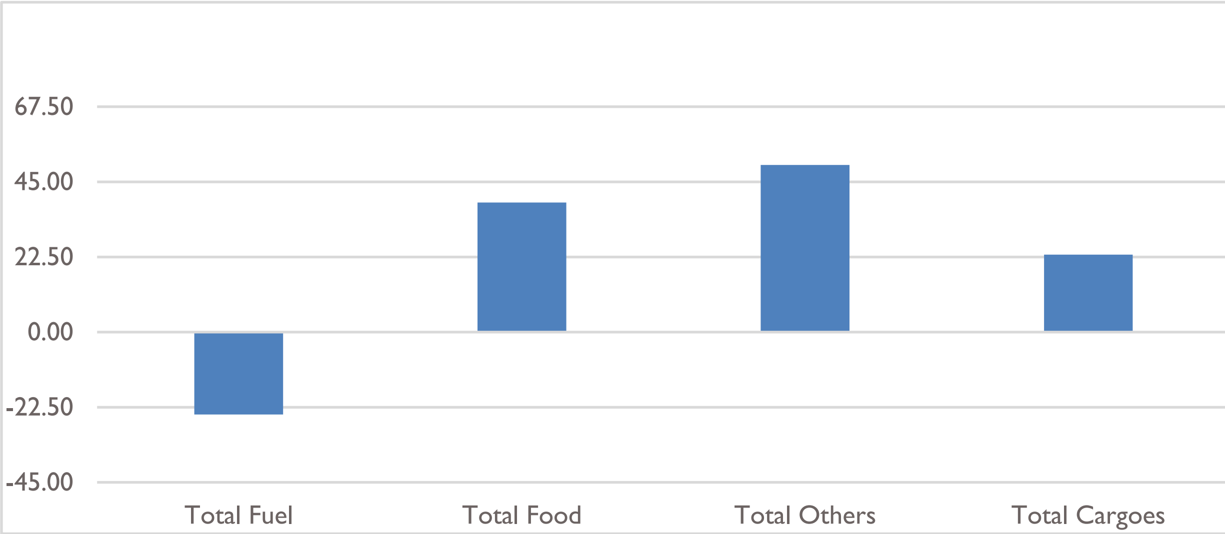
Overall import figures for the last 12 months, presented in the chart below, demonstrate the drop in total imports in April and May over Ramadan/Eid, affected as well by COVID-19. This is followed by the sharp overall rise in June owing to strong food and 'other cargo' imports, despite low fuel imports into Hudaydah. The latest three months saw only 160,000 MT of fuel imported in January. Still, imports increased in February and March, thanks to strong figures through Aden and Mukalla compensated for restrictions on fuel imports into Hudaydah. Overall, this quarter has seen robust total import tonnages, particularly food. This is illustrated in the Three-Month Totals chart for 2018-2021 provided below.

Chart 3: Type of Imports through Sea Ports (in MT)



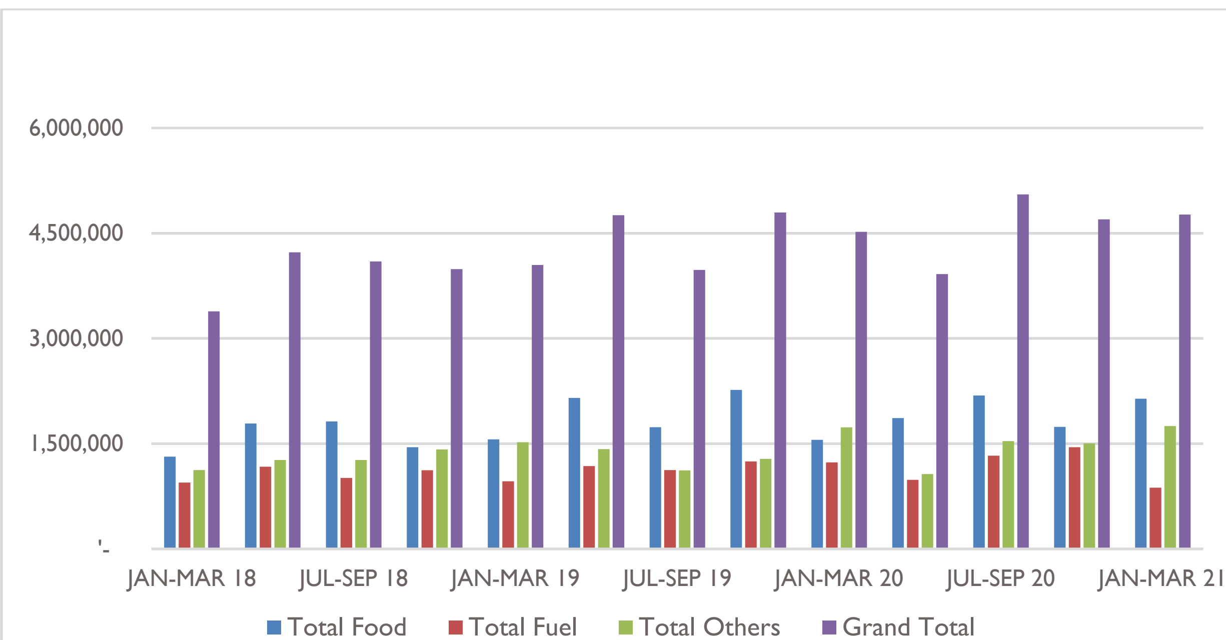
The three-month average for various cargo imports -- compared with the three months before Hudaydah was 'closed' in November 2017 -- is shown in the figure below. This indicates that the tonnage of fuel imported is, because of the restrictions at Hudaydah, 25 percent lower this quarter compared with the 2017 data. Still, food and other cargoes are 39-50 percent higher and, overall, the tonnage of imports is 23 percent higher than during the August to October 2017 period.

Chart 4: Percent Change in Imports via Key Sea Ports from Period Aug-Oct 2017 to Last Three Months



The team records the rolling average tonnages for three-month periods from January 2018 to the latest quarter in its monthly Trade Reports, giving a 'long view' of changes in cargo imports into Yemeni ports, as below.

Chart 5: Total Imports, All Entry Points, Three Month Totals, 2018-2021



During the next quarter (April-June 2021), ERLP will perform the following key activities:

1. Conduct a needs assessment for establishing the NCFT Secretariat and promote its establishment, including procurement of necessary basic ICT equipment and software.

2. Finalize and promote the adoption of best practice-compliant regulations on PCA.

3. Promote dialogue between YCA and KSA counterparts to harmonize cross-border cooperation, including alignment of hours of operations at Wadiya.

4. Complete the evaluation of the first Focus Vessel Exercise and utilize appropriate lessons learned from this to implement the second Focus Vessel Exercise, leading to the development of practical measures to increase ACT productivity for container vessel operations and minimize turnaround time for ships.

5. Complete Standard Operating Practices (SOPs) related to marine services and marine logistics and deliver training on these to Port of Aden staff.

6. Prepare job descriptions and recommendations on the Terminal Management Structure for the ACT.

7. Evaluate the final Damage Assessment Report produced by the UNDP/Port of Rotterdam on the ports of Aden and Mukalla and discuss its findings with USAID.

8. Support Port Management as necessary during the Site Assessment for the VTMIS, which is to be carried out by the equipment supplier.

9. Complete export guidelines needed to meet requirements in foreign markets for select agricultural products. Assist in preparing WTO Notifications concerning the implementation of the WTO TFA. These will, in turn, commit Yemen to specific dates for implementing the TFA.

10. Launch the Trade Information and Services Portal under the Ministry of Industry and Trade.

11. Continue to provide day-to-day advice to YCA and Port of Aden management and to help collect and produce monthly trade statistics and quarterly customs revenue reports.

12. Engage a local organization under a grant arrangement to implement the "baseline trading costs and dwell time" survey over 3 to 4 months by collecting information from the private sector, YCA, and other border agencies.

In addition, the project anticipates continuing to strengthen institutional capacity for advancing the implementation of trade facilitation measures through the following activities:

- Training workshop to build the capacity of YCA officers on Advance Rulings, based on the WCO Technical Guidelines on Advance Rulings for Classification, Origin, and Valuation.
- Training workshop to enhance the capacity of YCA officers on Administrative Appeals and Review
- Raise awareness of private sector representatives to encourage more applicants for AEO status - particularly SMEs and importers of essential food products and medical supplies – in a manner that helps counter the impact of COVID-19.
- Workshop on Yemen Coffee and Honey in the Last Ten Years: Major Markets and their Entry Standards.
- Workshop on customs risk management to build the capacity of YCA officers on advanced risk management.
- Roundtable for discussing and finalizing integrated border management (IBM) requirements.

COMPONENT 2: IMPROVED MICROECONOMIC CONDITIONS

2.1 STRENGTHENED SME CAPACITY

ERLP works with small and medium-sized businesses in key growth sectors to enhance productivity, create jobs, help secure financing, and match qualified job seekers with available positions. With proper support, these companies can play a catalytic role in economic recovery and community revitalization. ERLP's assistance to SMEs prioritizes job creation to help address endemic unemployment issues, particularly among women and youth.

The Strengthened SME Capacity component's firm-level enterprise-competitiveness approach endeavors to provide market-based solutions to catalyze sales, exports, and job growth. The project delivers tailored technical assistance to individuals and clusters of private-sector firms to help them address binding constraints to growth and increase their competitiveness to increase sales and employment.

The project strives to design and implement cost-effective technical assistance and has built a diverse portfolio of SMEs from different regions. High-potential firms in eight different sectors have been selected, including light manufacturing, healthcare, education, textile and garment, ICT, agribusiness, fisheries, retail, and services.

Gender mainstreaming is also a key element of the project's strategy to empower Yemeni women and bolster economic recovery and growth. ERLP-designed interventions promote women's employment and target sectors that attract female workers, such as education, garment manufacturing, and healthcare. In this regard, during the first six months of the program, 370 FTE project-created jobs were held by women.

2.1.1 SUPPORT TO SMALL AND MEDIUM ENTERPRISES (SMES)

BACKGROUND

ERLP has established a strong network of private-sector stakeholders consisting of SMEs, enterprise clusters, anchor firms, business associations, and chambers of commerce. An initial sector assessment identified the healthcare, ICT, and manufacturing sectors as having strong support needs and significant potential for sustainable growth and employment generation. ERLP systematically addresses critical SME growth constraints that need to be addressed in these sectors to increase productivity, expand sales, and create new, sustainable jobs.

> *The Youth Capacity Building Program was a lifeline. It guided me out of the maze of uncertainty that I was living in and led me through the skills and experiences that I needed to get a great job opportunity."*
>
> *– Ms. Doaa Omar al-Habashi*

During the first six months of the project, ERLP provided tailored assistance to 83 enterprises, generating 998 new jobs and a 15 percent or more sales increase. Over a relatively short period, ERLP succeeded in tracking and verifying 651 full-time-equivalent (FTE) jobs generated by 37 enterprises benefiting from ERLP technical and training interventions. These rapidly generated employment and incremental sales figures illustrate how ERLP SME interventions have already had a direct, measurable, and sustainable impact on employment outcomes, boosting household incomes and increasing enterprise sales.

QUARTERLY WORK ACTIVITIES AND DELIVERABLES

During Q2, the ERLP SME team supported the SME workplan activities and deliverables, reviewed and selected SMEs, provided technical assistance to SMEs, conducted key SME interventions, monitored and tracked sales increases for partner SMEs, and generated FTE jobs.

Table 36: Q2 Support to SMEs Activities and Deliverables

Activity	Deliverables
Follow up of ongoing technical assistance for selected SMEs and initiate the technical assistance for the 2nd group of firms.	1. 30 additional qualified SMEs prospected and reviewed. 2. 20 new SMEs receive technical assistance under the approved PAs. 3. 200 new jobs generated (350 cumulative jobs generated) 4. Increase in sales reported in US$ and # of sales agreements
Monitor/track sales increases for the second batch of partner SMEs and report new sales agreements sealed following the USG support.	
Monitor/track sales increases for the third batch of partner SMEs and report new sales agreements sealed following the USG support.	

I. SUPPORT TO SMES WORKPLAN ACTIVITIES AND DELIVERABLES FOR Q2:

During the reporting period, ERLP experts focused on achieving three main objectives: (i) delivering technical assistance interventions for selected SMEs, (ii) monitoring/tracking the sales increase realized by ERLP-beneficiaries, and (iii) generating FTE jobs. In the following sections, these deliverables are discussed in detail.

II. SMES REVIEWED AND SELECTED

Successful SME interventions in Aden, Hadramout, and Taiz have garnered a considerable reputation in these governates, as partner firms spread the word of the effectiveness of the strategic and tailored ERLP assistance. During the reporting period, ERLP screened 30 new firms and received 20 applications from enterprises interested in receiving USAID technical support. The project continued implementing a strategic outreach campaign to ensure that private-sector firms are aware of ERLP support to SMEs and are reaching a diverse group of enterprises selected from different sectors and locations.

III. TECHNICAL ASSISTANCE FOR SELECTED SMES

This quarter, ERLP developed and received USAID approval for nine Partnership Agreements with selected SMEs to implement five technical assistance and four pre-employment training interventions. These PAS are projected to create a combined 414 FTE jobs with US$ 7 million in incremental sales projected. The table below provides a list of companies and sectors that received ERLP technical assistance this quarter, including their sector, location, and specific numbers of jobs generated.

Moreover, sixteen Partnership Agreements approved during the previous quarters were finalized during Q2. ERLP SME and MEL units worked together to track the interventions' impacts on business growth, competitiveness enhancement, incremental sales, and employment generation.

ERLP's efforts were directed towards providing more support to SMEs in specific sectors, including light manufacturing, education, textile and garment, and healthcare. The following tables summarize the ongoing interventions as of FY21 Q2 under both job creation and workforce development components:

Table 37: Q2 Ongoing SMEs Interventions

PARTNERSHIP AGREEMENT	SECTOR	LOCATION	COMPONENT	N° JOBS
SMES RECEIVING TA AND CREATING JOBS				
NAF	Fisheries	Hadramout	JC/WFD	100
Bahaj Group	Manufacturing	Hadramout	JC	10
Maap Hospital	Healthcare	Aden	JC	15
Shubyk	ICT	Aden	JC	22
Al-Harameen Plastic Factory	Manufacturing	Aden	JC	21
Total number of jobs to be created				**178**
SMES RECEIVING PRE-EMPLOYMENT TRAINING AND MATCHING JOBS				
Al-Reyada Intl. Hospital	Healthcare	Aden	WFD	17
NAF	Fisheries	Hadramout	JC/WFD	150
TOR Cluster Education	Education	Hadramout	WFD	12
TOR Tailoring Workshops	Textile & Garment	Hadramout	WFD	43
Al Majd School	Education	Hadramout	WFD	14
Total number of jobs to be matched				**236**

IV. KEY SME INTERVENTIONS

Private healthcare sector growth amid the pandemic: Al Salehi Medical Corporation

The Al-Salehi Medical Corporation was established in February 2006 in Mansoura, Aden, Yemen. Over time, the company expanded its business, created new departments, and opened several branches to supply medical devices, medical supplies, medicine, medical gas, laboratory solutions, hygiene, and sterilization materials to hospitals, pharmacies, health facilities, and national and international humanitarian organizations. Al-Salehi is also a wholesale supplier of relief, shelter and safety materials, and other health-sector-related products.

Following the onset of the global pandemic, Al Salehi became a prominent health-sector actor, supplying most of the medical oxygen needs of public and private hospitals – a critical commodity for COVID-19 patients in Yemen. The company expected a further increase in demand for medical supplies and oxygen by international organizations that work with health institutions in the southern and eastern governorates.

Al-Salehi, however, was experiencing bottlenecks, failures to meet deadlines, and challenges in managing logistics between its new branches and reviewing financial and accounting data. In response, ERLP analyzed the key constraints facing the company. ERLP experts, in turn, identified a lack of business management proficiency - particularly in financial and HR management, controlling accounts, and inventory management – as critical deficiencies that would need to be addressed to enhance productivity and drive further sales growth.

Under the subsequent Partnership Agreement formulated with Al Salehi Medical Corp, ERLP experts addressed the competitiveness constraints preventing the company from effectively managing its growth. The intervention provided targeted technical assistance to improve administrative operations to increase operational efficiency and facilitate sustainable business expansion.

In this regard, ERLP implemented a jointly designed technical intervention to upgrade administrative functions, including human and financial resources management systems. The improved administrative and financial operations helped Al Salehi optimize the work of all departments, decreasing inefficiencies in operations and logistics between branch operations and headquarters.

As a result, Al-Salehi's revenue increased by 30 percent (from 80,000 USD to 108,000 USD), enabling the creation of 17 new full-time positions during the quarter. The company plans to hire an additional three more employees in the upcoming months as well.

Meeting the increasing demand for bottled mineral water: Pure Aden for Water

Founded in 2016 in Aden, Pure Aden for Plastic and Sanitary Water Industries is a Yemeni producer of bottled water and various plastic containers, which employed 30 full-time workers. Owing to Yemen's challenging hygiene/sanitary environment, the demand for high-quality and safe bottled water has increased considerably. In response, Pure Aden attempted to increase capacity substantially, which revealed unexpected operational inefficiencies. These, in turn, resulted in increased wastage, poor logistical and distribution performance, and inadequate cost control.

Following a rapid strategic assessment, ERLP identified critical deficiencies in Pure Aden's organization and production structure, including weaknesses in planning, quality control, and execution. These challenges, in return, were adversely affecting the Company's KPIs and hindering its growth.

ERLP then focused on expeditiously addressing the critical constraints which had been identified and prioritized and provided targeted technical assistance to improve the company's key operational processes. Pure Aden also overhauled its organizational structure through this intervention and enhanced its existing management and production control tools. The management adopted rigorous best-practice process-improvement tools, which dramatically improved its production and delivery schedules and performance against major KPIs.

As a direct result of the strategic management interventions leveraged by ERLP, Pure Aden reported an incremental annualized sales increase of 15 percent. The company created nine new jobs in February-March 2021 and is expected to create six more jobs by the end of August 2021, as production capacity increases further to meet additional projected demand.

Other examples of such interventions include the TA provided to Gulf Hospital and MAAP Hospital. More details of the first phases of the technical support, entailing a detailed SWOT analysis, to MAAP Hospital and Gulf Hospital can be found in the Annexes (See "*Micro – Annex 28 - MAAP Hospital Diagnostic Report* (*#21-008)*" and the "*Micro – Annex 29 - Gulf Hospital Diagnostic Report (#20-043*)."

V. MONITOR/TRACK SALES INCREASES FOR PARTNER SMES

Following the implementation of technical collaboration activities with partner firms, ERLP started tracking incremental sales directly linked to the impact of ERLP technical assistance. In collaboration with the ERLP MEL team, SME experts have monitored the sales increases of partner firms to assess how effectively the technical support being provided is helping to address binding constraints to growth and build firm competitiveness, and its resulting impact on increased sales and employment. The following table summarizes related information from ERLP partner firms that provided sales trackers to help track the incremental sales reported as of the end of Q2.

Table 38: ERLP Partner Firms and Incremental Sales

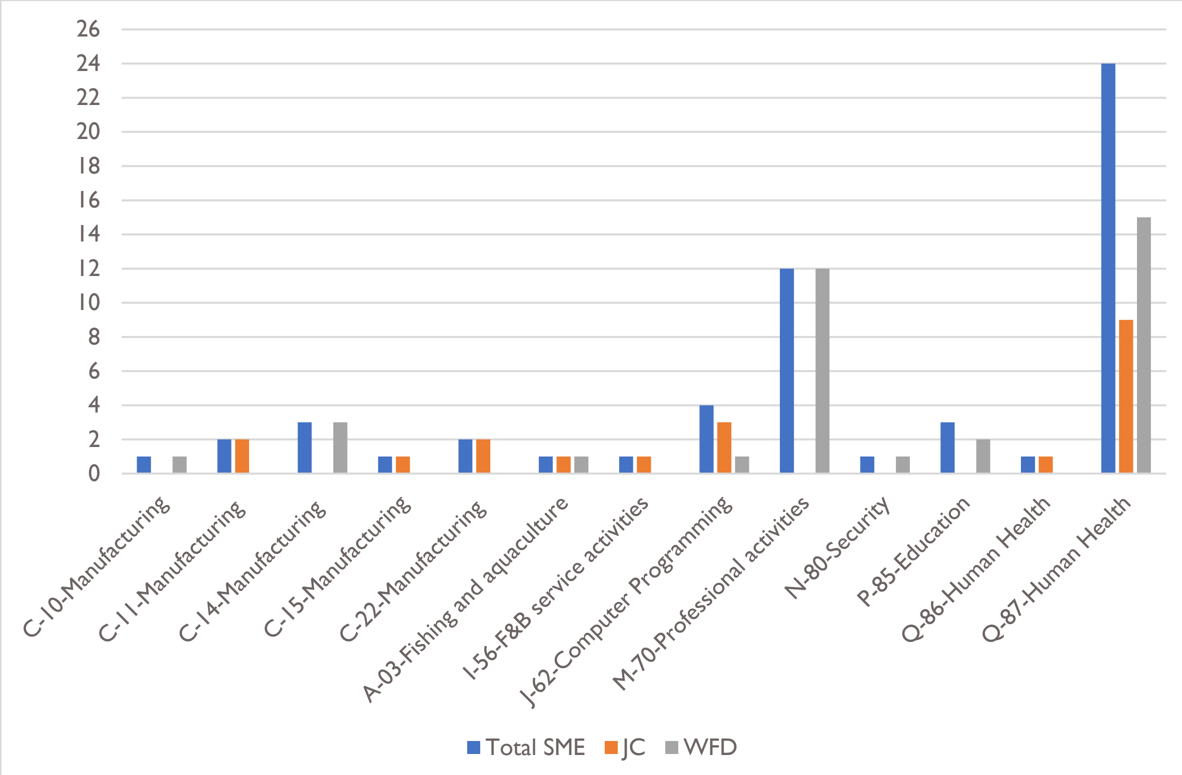
#	Partnership Agreement	Baseline Q1 Sales 2020 (USD)	Baseline Q2 Sales 2020 (USD)	Q1 Sales (After ERLP TA) (USD)	% Increase Incrementa Sales	Q2 Sales (After ERLP TA) (USD)	% Increase Increment al Sales
1	Abu Sufyan Trading Corp	11,893,813	12,241,806	12,084,154	2	14,280,431	17
2	Al - Salam Specialized Clinic	372,892	370,054	516,050	38	778,318	110
3	Al- Madar Specialized Clinic	153,263	218,946	174,301	14	232,201	6
4	AL Salehi Medical Corporation	80,000	82,000	108,300	35	123,000	50
5	Al-Haramain Medical Center	80,628	85,714	117,115	45	137,669	61
6	BBSoft	10,350	12,420	23,300	125	16,950	36
7	Pure Aden for Water	34,462	33,874	35,347	3	42,000	24
8	You4IT	0	0	10,000	100	17,000	100
9	Al-Wahda Factory	87,656	55,887	101,956	16	110,198	97
10	Doctors Tower	47,818	32,143	90,567	89	85,853	167
11	Gulf Hospital	242,500	255,560	345,000	42	351,400	38
12	E-commerce	N/A	1,500	N/A	N/A	2,050	37
13	Al Rawda (number of patients)	N/A	8997	N/A	N/A	10255	14

VI. FTE JOBS GENERATED AS OF FY21 Q2

During the reporting period, ERLP verified and reported 464 FTE jobs for a total of 651 FTE jobs over the first six months of the project. As of FY21 Q2, ERLP provided support to 56 private sector firms across eight different economic sectors. It is currently estimated that a total of at least 998 jobs will be generated through the support being provided to these firms during Year 1 of the project.

The following diagram illustrates the diversification of the sectors where ERLP has developed provided strategic technical assistance and/or pre-employment training support to partner firms.

Chart 6: ERLP Interventions by Sector – JC/WFD



2.1.2 WORKFORCE DEVELOPMENT

QUARTERLY WORK ACTIVITIES AND DELIVERABLES

During Q2, ERLP experts focused on achieving three main workforce development-related objectives: (i) providing pre-employment training for SMEs, (ii) building capacity for women, and (iii) support market-relevant curriculum development.

Table 39: Workforce Development Q2 Activities and Deliverables

Activity	Deliverables
Conduct pre-employment training with the second group of firms.	1. One hundred additional women and youth trained in new and/or upgraded skills and obtaining new sources of sustainable income. 2. Ten new Partnership Agreements approved and signed. 3. Up to 150 new candidates trained and recruited. 4. Three new curriculum development PAs signed and implemented. 5. 150 new jobs matched (300 cumulative jobs matched).
Follow up with the implementation of the first three curricula in Hadramout Community College Network	
Conduct a second workshop with Hadramout Community College Network to develop and implement new/upgraded curriculums.	
Monitor/track the implementation and report the milestones achieved under the second batch of PAs	

I. PRE-EMPLOYMENT TRAINING FOR SMES

14 female teachers receiving their certificates of completion of the pre-employment training in teaching skills.

During the quarter, 11 pre-employment training interventions were completed, generating 314 FTE jobs. This, in turn, raised the total number of FTE jobs matched during the first six months of the project to 460. During Q2, ERLP obtained approval for 14 WFD Partnership Agreements. These employment gains represent new jobs matched following a targeted pre-employment training program and/or better employment opportunities fomented for existing staff. Owing to ERLP's cutting-edge WFD approach, the beneficiaries across five different sectors (education, textile and garment, ICT, healthcare, and services) reported enhanced internal capacity and improved work conditions.

The following table illustrates the number of pre-employment training interventions implemented by the ERLP WFD team in Aden, Taiz, and Hadramout governorates:

Table 40: Pre-Employment Training Interventions

PA/TOR	Sector	Jobs Matched
Al Hosn Factory for Salt	C-10-Manufacturing	5
Youth Capacity Building	M-70-Professional activities	10
Al Arabiya Soft	J-62-Computer Programming	26
Al Naqueeb Hospital	Q-87-Human Health	85
Babel Hospital	Q-87-Human Health	41
King Security & Safety	N-80-Security	24
Covid 19 Aden	Q-87-Human Health	112
Covid 19 Taiz	Q-87-Human Health	58
Al Reyada Hospital	Q-87-Human Health	66
TOR Education	P-85-Education	12
NAF	A-03-Fishing and aquaculture	150
TOR Tailoring Workshops	C-14-Manufacturing	43
Al Majd School	P-85-Education	14
TOTAL		**482**

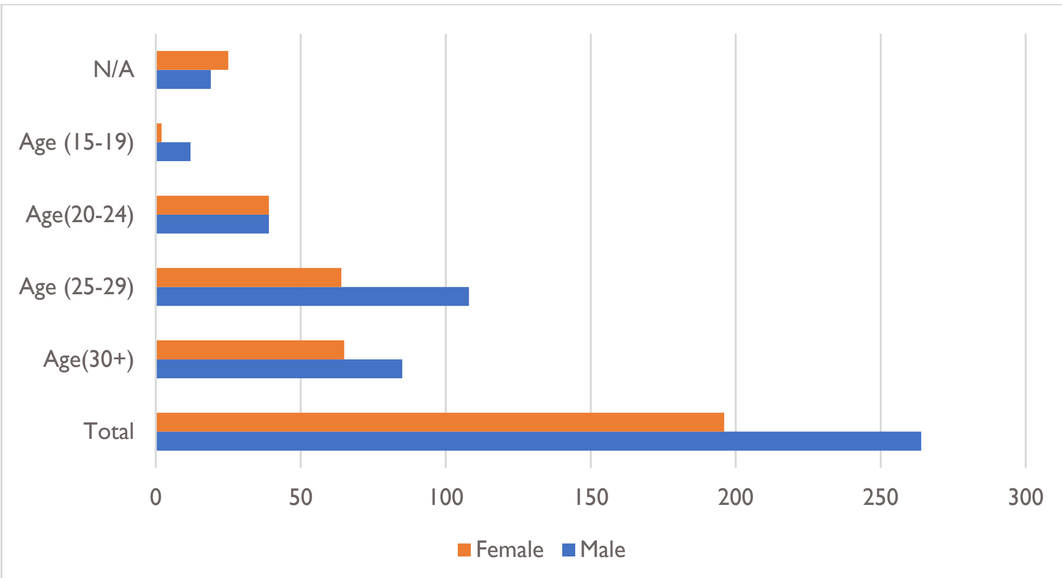
II. CAPACITY BUILDING FOR WOMEN

In Yemen, women have suffered from profoundly entrenched gender inequality, deeply rooted in a patriarchal society with rigid gender roles. In this regard, gender differences across occupations are persistent and continue to limit viable employment opportunities for women dramatically.

ERLP is committed to proactively addressing the issue of underemployment for Yemeni women and supporting their enhanced participation in private sector growth initiatives. In this regard, during Q2, ERLP workforce development experts explored in-depth the capacity-building and recruitment needs of a group of private sector businesses that expressed interest in training and hiring qualified employees during the quarter. In partnership with these private sector firms, the project designed tailored pre-employment interventions that targeted females and facilitated the related recruitment of women across various sectors. These included education, light manufacturing, textile/garment, and healthcare.

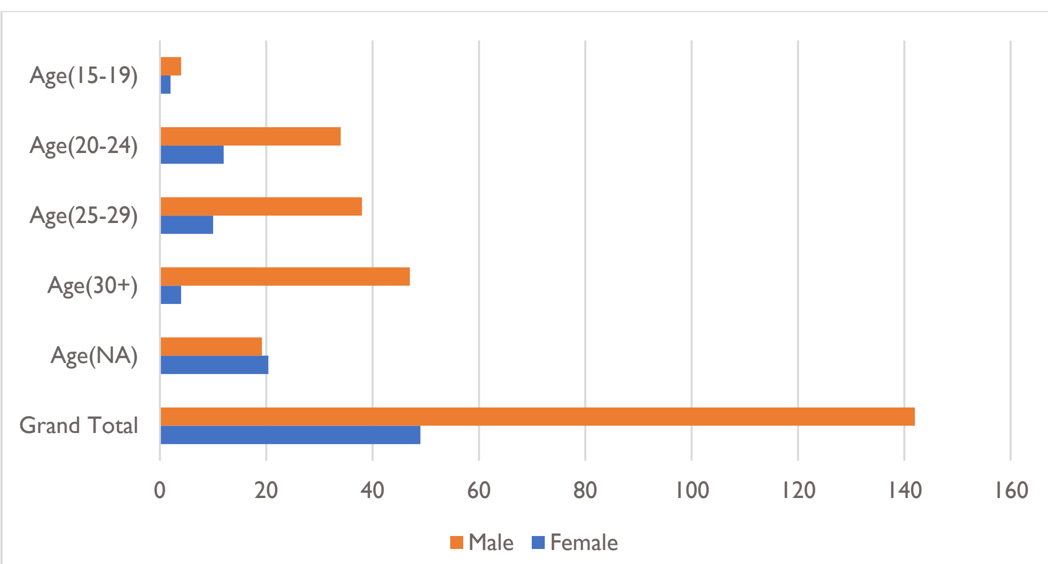
The following graph illustrates the number of females who obtained jobs following ERLP training interventions through March 2021. Women held forty percent of the jobs matched through ERLP support.

Chart 7: FTE Jobs Matched – by Gender



The following graph illustrates gender differences in the jobs created by ERLP partner firms that received technical assistance through March 2021. Women have filled 27% of the jobs created.

Chart 8: FTE Jobs Created – by Gender



During the quarter, ERLP designed multiple pre-employment training interventions that exclusively targeted female participants, including the Al Majd School and a group of three tailoring workshops:

Al Majd School

The Al Majd National School was established in 2018 in Seiyun, Hadramout. It offers kindergarten and primary education to children ages 4 to 12 and currently has 20 full-time employees. Al Majd has witnessed a steady rise in enrollment, reflecting the increasing number of families turning to private education institutions as they strive to ensure viable and high-quality learning for their children. In 2020, the school recorded a 200 percent increase in student enrollment (the total number of enrolled children increased from 180 to 368 since 2018). The school expects an additional 65 percent increase by 2021.

Because of the increased business demand and lack of qualified staff, Al Majd struggled to ensure the reliable delivery of high-quality classroom instruction. The school needed to hire more qualified teachers to cope with the increasing demand for high-quality education services.

Although unemployed teachers are available, they are generally under-skilled -- owing principally to the lack of practical training and continuous professional development in Yemen's education sector. Al Majd was, as a result facing a significant shortage of teachers with qualifications that meet the standards expected by families paying for private education.

To improve Al Majd's service delivery and capacity, ERLP WFD experts and Al Majid management jointly prioritized implementing a targeted human resource management and training program. The project provided targeted demand-driven training in pedagogical skills, including critical areas such as classroom management, collaborative learning, Flipped Classroom, and Gamification.

This WFD intervention provided intensive pre-employment training to seven new recruits, who filled Al Majd's critical teacher staffing needs. The intervention also trained and upgraded the pedagogical skills of seven existing teachers who obtained better employment opportunities, receiving full-time fixed contracts upon completing the training initiative.

Looking ahead, this innovative HRM and training program appears to have strong replication potential across other private schools experiencing similar constraints in the delivery of qualified education services on an expanded basis.

Al Ghad Factory for Tailoring

Al Ghad Factory for Training & Rehabilitation is a women-owned garment factory established in 2013 in Mukalla, Hadramout. The company specializes in women's and children's clothing, offering casual clothes at competitive prices. Despite the extremely challenging circumstances of the pandemic and related lockdowns, the owner has generated demand for her products by energetically prospecting new market segments. In this regard, she took advantage of reduced imports from China and

12 seamstresses receiving intensive training in tailoring skills in Al Ghad Factory.

India caused by pandemic-driven global supply-chain disruptions and managed to secure new orders from local wholesalers and garment shops.

Within this context, Al Ghad's management planned to create a new business line to design and produce garments to fill the new orders from wholesalers and shops. While Al Ghad had the equipment and factory space needed to increase production, its staff lacked the essential know-how required for the new specific types of garments demanded by customers. This includes finishing corners, points, and curved edges, forming pleats, making coats, working with linings, shoulder pads, and boning. This skills deficiency was flagged as the critical limiting factor to the factory's potential sales growth and represented a significant obstacle to its expansion.

In response, ERLP and Al Ghad designed a targeted recruitment and capacity-building program that would effectively address the critical human resource constraints identified. This, in turn, enabled the factory to expeditiously open the envisaged new production line to meet the increased demand it had accessed. As a direct result of ERLP technical assistance, the factory employed 12 new sewing specialists, who reinforced the new production line and helped ensure that new orders were ready on time.

III. CURRICULUM DEVELOPMENT

ERLP supports the enhancement of market-relevant vocational education curricula in Yemen, focusing on skill areas in high demand by the private sector. ERLP works with partner SMEs across key economic sectors and has garnered significant intelligence on where the key gaps lie between employment skills most urgently sought by businesses and what is currently taught in the educational system. This knowledge is supplemented by stakeholder feedback from relevant public and private-sector partner institutions supporting project job-matching activities, such as Chambers of Commerce and the Ministry of Vocational Education and Training (MOVET).

Post-secondary occupational training in Yemen is provided through the Technical and Vocational Education and Training (TVET) system, comprised of two-year vocational training institutes and three-year community colleges. TVET has not been updated since 2009, and it faces the following core challenges:

- Instructors lack access to classroom-management training and rigorous content-related training.
- Instructors have weak pedagogical skills, and there is virtually no competency-based training in most curriculum tracks.
- Curricula are outdated and do not mirror market-relevant practices. Curriculum development reflects a supply-driven approach with weak labor-market linkages and does not deliver in-demand skills.
- Vocational students receive no training in soft skills.
- Students have virtually no access to career development services.

The sectors under consideration were selected due to ERLP's extensive WFD outreach, support, training, and job search activities. In this regard, the project investigated the most prevalent gaps between critical labor market requirements and the training services supplied by the educational system. Project partner firms and relevant public/private-sector stakeholders identified the sectors below, in which TVET graduate skills gaps significantly hamper competitiveness and growth potential. ERLP seeks to improve the quality of TVET performance in key skill areas in demand across these sectors.

These include the following:

Renewable energy: ERLP conducted extensive dialogue with sector stakeholders regarding their educational/service upgrading efforts; and found that firms face a shortage of qualified workers in several major technical specializations. The current curriculum of relevant training institutions does not appear to address the sector's evolving skill enhancement needs effectively -- for example, the installation and maintenance of solar panel skills (for which companies are actively recruiting).

Information and Communications Technology: ERLP has provided technical assistance, OTJ training, and pre-employment training for partner SMEs in ICT. In software/app development and programming. In the course of implementing these support initiatives, an increasing number of start-ups have reported severe difficulties in finding workers with up-to-date ICT technical skills. This is a constantly evolving sector in which vocational schools in Yemen seem to have fallen significantly behind, and students need improved and modernized courses. Instructors also need training and certification support. There is also a significant need to enhance pedagogical culture in a manner that helps maximize learning transmission processes in the classroom in this sector.

Healthcare: ERLP has conducted numerous technical interventions with private hospitals (15 private healthcare facilities, in addition to COVID-19 upskilling for public healthcare facilities). Private and public clinics and hospitals are struggling with a massive shortage of skilled nurses. As documented through previous ERLP WFD interventions in this sector, the lack of strategic investment in healthcare and medical training infrastructure in Yemen has adversely impacted the type of education novice nurses are receiving, leaving them without the necessary practical and task-oriented expertise to provide quality services to patients.

This is particularly acute -- in the wake of COVID-19 -- in the areas of emergency medicine and dealing with infectious patients. In this regard, there remains an urgent need for instructors to be trained and certified in modern procedures that meet best-practice standards in infection control, emergency room/ICU management, medical-waste management, advanced nursing skills, and healthcare personnel management practices.

Seiyun Community College was the first institution to receive technical assistance for developing and upgrading essential curricula across key skill enhancement areas under ERLP. Seiyun was founded in 2003 and is one of the most prominent TVET institutions in Hadramout. The college leadership and teaching staff have demonstrated strong initiative and a commitment to embracing improved market-relevant curricula to enhance the employability of their graduates. Following meetings with the Higher Council of Community Colleges Executive Board (HCCCEB), ERLP and Seiyun mutually agreed that increasing Seiyun's capacity on multiple fronts to deliver high-quality, market-relevant vocational education and training is an essential first step to helping overcome key labor market skill shortfalls.

During Q2, ERLP curriculum experts kicked off this comprehensive intervention and initiated the design of guidelines and related criteria for upgrading key occupational training modules for Yemeni vocational institutions. Project curriculum experts began to develop appropriate curriculum and assessment tools that respond to current and prospective labor market skill needs in critical areas, effectively incorporating/reflecting the results of targeted stakeholder dialogue and adjoining project research. Starting in Q-3, ERLP plans to deliver competency-based training to TVET instructors to improve the pedagogical quality of education provided in key targeted skill areas.

Under the Partnership Agreement with Seiyun, and throughout Q3 and Q4, ERLP will also continue to support the College's formal adoption and delivery of three new vocational degree programs in "Renewable Energy," "Software Programming," and "Health Management." This will commence with the 2021-22 academic year. ERLP experts will, in this regard, conduct a thorough analysis of the existing curriculum related to these sectors and develop new individual courses. The new material will include practical modules designed to create formalized, enhanced, and market-responsive training programs. Related training of Trainers (TOT) sessions will be provided for the instructors, who will deliver the new courses in the new degree programs. ERLP and Seiyun expect 164 estimated students to complete USG-assisted workforce development programs (50 in 2022, 114 in 2023), and 164 estimated graduates to receive new or better employment because of USG assistance (50 in 2022, 114 in 2023).

2.1.3 ACCESS TO FINANCE

BACKGROUND

Access to finance is critically important for sustainable private sector growth and job creation in Yemen. However, few financial organizations exist that understand and adequately serve Yemen's SME market. Weak credit information, inadequate understanding of SME risk, excessive collateral requirements, and financial products ill-suited to SME needs significantly constrain lending and impede sector growth.

This quarter, ERLP continued to work closely with former and new Partner Financial Institutions (PFIs) on new SME lending modalities and outreach strategies. The project's goal is to build the capacity of financial institutions to assess SME client creditworthiness in an efficient, timely, and effective manner through the provision of a wide range of cutting-edge financial services. ERLP has rapidly established a robust network of PFIs that includes some of the country's largest commercial banks, namely the International Bank of Yemen (IBY), Yemen Commercial Bank (YCB), El Tadhamon Bank, El Amal Bank, and Al-Ittihad Microfinance Program.

ERLP/A2F support activities are tailored to meet each partner's particular situation and needs, with distinct deliverables and implementation timelines. Robust and innovative SME financial products and credit processes are based on industry best-practice standards that focus on cash flow and other key characteristics rather than collateral requirements. ERLP also promotes Mobile Financial Services (MFS) and FinTech products spanning five Southern governorates: Lahj, Taiz, Abyan, Hadramout, and Shabwa. Since the project's inception, ERLP technical support consisting of new and improved MSME lending policies, procedures, and products, combined with greatly improved PFI outreach, has already generated $4.7 million in new loans during the first two quarters of program implementation.

QUARTERLY WORK ACTIVITIES AND DELIVERABLES

During the reporting period, ERLP experts focused on achieving five main targets: (i) providing technical support to PFIs to develop further their respective SME loan portfolios, (ii) developing leasing, a financial-services product suited for mid to long-term SME investments, (iii) developing a pipeline of credit-ready SMEs, and facilitate their access to finance, (iv) supporting the design/development of partner FI MFS/FinTech strategic game-plans, (v) helping secure SME lending. In the following section, these deliverables are discussed in detail.

Table 41: Q2 A2F Activities and Deliverables

Activity	Deliverables
Provide technical support to partner FIs to develop their respective SME loan portfolios	1. Seven partner FIs received technical assistance designed to build their respective SME loan portfolios. Potential partnerships are currently being explored with Al Bahrain Bank and El Kurimi SME Bank. 2. New, innovative leasing product developed. 3. Pipeline of at least ten additional credit-ready SMEs developed 4. New SMEs screened/selected 5. 160 ERLP-supported agricultural sector chain actors received financing from assisted institutional partners 6. $2 million in additional lending to SMEs (at least $600,000 to women-owned firms) achieved. 7. 160 SME clients (at least 30 women) benefitted from financing received from ERLP partners 8. $600,000 in additional lending to agriculture activities (at least $160,000 to women-owned firms) achieved 9. Three partner FIs received support in designing their MFS/FinTech strategic game-plans
Develop leasing—a financial-services product suited for mid to long-term SME investments	
Develop a pipeline of credit-ready SMEs and facilitate their access to finance	
Finalize the terms of reference for leasing finance product development and initiate the implementation of Phase I in collaboration with focus groups.	
Perform tender process for selecting a consulting firm	
Establish an early design of workflows	
Establish the early design of accompanying M&C mechanisms (Risk and Audit)	
Develop accompanying policies and manuals	
Provide support to three partner FIs to develop their MFS/FinTech strategic game-plan	

I. PROVIDE TECHNICAL SUPPORT TO PARTNER FIS TO FURTHER DEVELOP THEIR RESPECTIVE SME LOAN PORTFOLIOS

During the quarter, the project worked assiduously on capacity building, training, and developing SME lending strategies within Yemen's two largest commercial banks—the International Bank of Yemen (IBY) and the Yemen Commercial Bank (YCB).

While both banks have a strong corporate lending history, neither has adequately served the SME market nor developed a comprehensive understanding of SME risk. As a result, their financial products are ill-suited to the needs of SMEs and carry stringent collateral requirements. A central challenge of ERLP is to shift the mindset of commercial banks from corporate asset-based lending to financial products and services based on cash flow and other non-asset-based criteria.

This quarter, the ERLP/A2F component developed tailored, best-practice lending strategies and new credit policies and procedures for both banks. The project conducted multiple formal and on-the-job training sessions and workshops to educate bank staff about the new strategies and loan products - including the Pragma Credit Application Package (CAP) model. The interventions also served to foster an SME lending culture within each bank. Both banks have demonstrated their commitment to ERLP objectives by creating new units dedicated exclusively to SME lending. This quarter alone, YCB registered $900,000 in new SME loans.

IBY Introductory SME Lending Training

The project also provides on-site support to Al Amal Bank, Al Tadhamon Microfinance Foundation, and Al-Ittihad Microfinance Program. This quarter, new invoice finance and E-savings products linked to the E-wallet platform were piloted in Al Amal Bank and Al Tadhamon Microfinance Foundation. In addition, Bai Salam, an Islamic Law-compliant agriculture financing product never before used in Yemen, was piloted at the Al-Ittihad Microfinance Program. The new product links small farmers directly to markets, bypassing traditional and costly intermediaries, thereby allowing farmers to sell their crops at higher prices.

"The next training must be attended by all bank staff, not just credit staff. The SME financing concepts introduced today must be mastered by all our staff."

Mr. Rabee El Homidy YCB CEO, during introductory SME lending training.

In total, 5 PFIs received technical assistance in support of building their SME lending capacity. One hundred seven key partner bank employees participated in 13 training events (227 training days) on CAP, SME credit risk management/lending best practices, and agricultural finance product development. USAID third-party monitors noted the high quality of the interventions and positive feedback received from the participants. Training events conducted during Q2 are summarized in the table below.

Table 42: Q2 Training Events

PFI	Training	Dates	Attendees	Female	Trainee Days
AML	CAP Model	January 27-28,	20	5	40
YCB	Credit Risk	February 1-2	15	2	30
TM	CAP Model	February 3-4,	10	2	20
YCB	SMEs & CAP Model	February 14-16,	19	5	38
IBY	SMEs & CAP Model	February 21-24,	30	13	60
Al-Itihad	SMEs & CAP Model	February 27-28	13	5	39
Total			**107**	**32**	**227**

II. DEVELOP LEASING, A FINANCIAL-SERVICES PRODUCT SUITED FOR MID-LONG-TERM SME INVESTMENTS

The rapid depreciation of the Yemeni Rial, limited availability of foreign currency, and near exhaustion of the KSA deposit have significantly impacted Yemen's availability of long-term financing. The situation has been exacerbated by the sharp decline in remittances attributed to the contractionary impact of COVID-19.

In response, ERLP introduced new targeted lending products supporting internal trade financing transactions designed to help enhance the liquidity position of SMEs. A special focus was directed to food, pharmaceutical, and healthcare product suppliers to address critical needs arising from the pandemic. Leasing was introduced as a means of helping finance the acquisition of mid to long-term fixed assets in lieu of conventional collateral. The PFIs have expressed strong interest in adopting this product, which is expected to be introduced on a pilot basis later this year as macro-financial conditions further stabilize.

ERLP has also developed a factoring underwriting tool in Excel to automate new factoring processes, including risk assessments and financial analysis. The project worked in this regard with Al Amal Bank to develop an operations manual and procedures supporting the factoring product introduced during the quarter. This was followed by on-the-job training to coach factoring implementation through invoice financing (compliant with Sharia standards and operational requirements). This support covered the Aden, Hadramout, and Taiz branches. ERLP also conducted on-the-job training to improve staff capacity to assess the quality of invoices and receivables and analyze debt owed by buyers to sellers arising from open account trade (using an ERLP-developed Factoring Underwriting tool FUT). Training also focused on improving staff capacity to conduct pre-finance due diligence; geared towards improving risk management through cogent analysis of buyer limits.

III. DEVELOP PIPELINE OF CREDIT-READY SMES AND FACILITATE THEIR ACCESS TO FINANCE

In coordination with the ERLP SME component, the A2F advisors conducted field visits to assess partner SME financial needs, creditworthiness, and readiness to seek financial support from PFIs. During these visits, the team met individually with firms to advise them on meeting lending requirements and linking them to the most appropriate FIs.

Eight Partner SMEs were added to the pipeline, with 4 of them applying for loans during the reporting period. Based on the success of these initial field visits, the A2F and SME components will conduct joint workshops at the governorate level that will link prospective firms with PFIs on an expanded basis; and in a manner that will help further augment their access to finance to support existing operations and expansion plans.

IV. SUPPORT THE DESIGN/DEVELOPMENT OF PARTNER FI MFS/FINTECH STRATEGIC GAME-PLANS

Constrained by weak infrastructure, manual processes, and high service delivery costs, PFIs find it extremely difficult to scale up operations. ERLP market analysis has served to underscore the important role that MFS can play in Yemen in significantly expanding PFI financial intermediation outreach and service provision. In this regard, two PFIs, Al Amal and Al Tadhamon, received MFS/Fin-tech-related support during the quarter. The project completed an assessment for Tadhamon's current level of savings and deposit services and initiated a new savings product that will increase the collection of deposits online.

Based on our assessment of current MFS services offered by ERLP PFIs, only Al Amal Bank operates a payment wallet that enables users to receive remittances and pay bills. Al Tadhamon Microfinance, Al-Ittihad Microfinance Program, IBY, and YCB are still considering options for digitizing some financial services they offer. This quarter, ERLP developed a digital system that will suit a number of partner FIs. The system architecture links new savings and loan products to an online banking platform.

ERLP is working with Al Amal Bank to test the system, linking its invoice finance product with an application that allows it to receive clients' factored invoices online. The above-referenced FUT will be able to automate most processes of factoring transactions. Once the module is tested and proved to be effective during this pilot phase, it will be fully automated and fully integrated into the bank's core banking system. This will enable applicants and lenders to manage invoice financing far more efficiently. The next step will link the invoice finance product with the bank's E-Wallet, thus enabling clients to apply for receivables financing online. Upon successfully completing the pilot phase, the ERLP intends to replicate the system and platform with the other partner FIs and to expand its application robustly.

ERLP has also developed a fintech solution that will enable MFIs to mobilize more funds and pool resources for lending purposes. The application targets clients with surplus liquidity to invest in time deposits (a deposit in a bank account that cannot be withdrawn before a set date or for which notice of withdrawal is required). The application will be integrated with ongoing mobile money and other ERLP-supported digital initiatives. Al Tadhamon Microfinance has already expressed strong interest in the application. Consequently, the project rapidly completed an assessment for Tadhamon's current level of savings and deposit services and has initiated a new savings product designed to facilitate the collection of deposits online.

V. SME LENDING

During the reported period, the ERLP continued to work with PFIs to grow their respective SME lending portfolios. To achieve this, the project encouraged PFIs to assess the strength of the businesses through rigorous and rapidly applicable financial and non-financial analysis techniques based on readily accessible business performance information rather than through the imposition of excessive collateral requirements. Additionally, the A2F advisors worked with the PFIs to develop improved financial tools, including working capital and invoice financing. Both products were formally launched this quarter. ERLP also launched a dedicated SME unit at YCB, which initiated SME lending under an initial pilot phase. The new unit has already disbursed nearly $900,000 to 34 SMEs. Over ERLP support activities leveraged a total of $2.9 million in lending to 763 SME clients (64 women-owned) during the quarter.

The A2F component has enhanced the capacity of partner FIs to manage agricultural credits more effectively, which is poised to generate a significant increase in sustainable agriculture lending over time. In this regard, comprehensive risk management training related to agriculture lending was provided to Al Tadhamon Microfinance Foundation and Al Amal Bank. The project also trained Al-Ittihad Microfinance Program on the aforementioned Bai Salam–a type of forward contract between producers, banks, and wholesalers paid in advance for products/crops delivered on a deferred basis. This quarter, Bai Salam generated $300,000 in new agricultural loans.

Overall, thirty-two value-chain actors received financing this quarter. This number is anticipated to increase further next quarter, as new partners Al Ittihad (a specialized MFI in Ag-finance) and Kurimi SME bank start working with the project on agriculture-specific lending activities during the next quarter.

The below table provides a summary of loans approved through Q2 by partner FI.

Table 43: Summary of Partner FIs Approved Loans through Q2

ERLP	Approved Loans	Value in USD
SME Lending:		
TM	1,253	$2,532,193
AMB	1,123	$376,057
Itihad	149	$314,418
YCB	34	$956,623
Total SME Loans	**2,559**	**$4,179,291**

ERLP	Approved Loans	Value in USD
Agro Lending:		
TM	41	$452,154
AMB	-	$-
Itihad	32	$126,690
YCB	-	$-
Total Agriculture Loans	**73**	**$578,844**
Total Loans	**2,632**	**$4,758,135**

During the reporting period, ERLP worked with PFIs to encourage enhanced lending activities with women-owned/managed businesses as well. As a result, Al-Ittihad Microfinance Program initiated a focused process of prioritizing female lending in the fisheries and agriculture sectors. Partners FIs have received additional outreach information and orientation regarding the growing participation of women in the informal economy and the tremendous economic potential of women-owned/managed businesses in key sectors of the Yemeni economy. Targeted technical support was provided on effective outreach strategies through which FIs can further empower women through the efficient provision of sustainable credit and financial services. As a result, progress has been made on increasing their understanding of the importance of lending to women. Better practice-focused lending programs supporting women entrepreneurs have been initiated with a number of partner financial institutions.

Additionally, a focused effort is underway to link women-owned partner MSMEs with ERLP's network of PFIs. This quarter, ERLP partner FIs reported nearly $126,000 in new loans to women. Of the $578,000 in additional lending for agricultural activities, $102,000 went to women. Intensive follow-on work in this critical area will continue next quarter.

(See "*Macro – Annex 30 - A2F - Partner FIs*")

2.2 SUSTAINABLE LIVELIHOODS

Agriculture and fisheries constitute a primary source of Yemen's livelihood, ranking only behind petroleum in economic significance. The sectors are highly labor-intensive, employing over 50 percent of the rural workforce and accounting for more than 20 percent of GDP. To support these core industries, ERLP implements targeted, market-led efforts to improve entrepreneurial capacity. The project applies best practices and improved technologies for augmenting both production and quality while enhancing downstream market development and integration. In the wake of the humanitarian crises, the agricultural and fisheries sectors are critical to expanding food security, decreasing import reliance, and increasing vulnerable household incomes.

2.2.1 AGRICULTURE AND AGRIBUSINESS

BACKGROUND

The agriculture sector in Yemen is underperforming because of low productivity and limited market access. Over the years, outdated farming practices have resulted in an escalating decline in farm output, directly contributing to increased rural poverty. ERLP introduces technologies and best practices to increase returns to producers across four key value chains: Coffee, horticulture, honey, and livestock. The goal is to shift mindsets from increasing farm output to improving farmer incomes. Targeted upstream ERLP support, in this regard, promotes the efficient use of scarce resources to reduce production costs and wastage, improve product quality, and leverage high-end markets to increase producer prices.

The project builds smallholder farmer capacity in the abovementioned value chains through targeted technical assistance, training, and hands-on learning through ERLP-established farmer field schools and small-farm enterprise demonstrations. For small-scale markets, ERLP interventions bolster vertical and horizontal linkages and build trust between value chain actors. The promotion of new technology and techniques through targeted training improves agriculture productivity and workforce quality.

The impact of the ERLP interventions is also elevated through downstream support designed to promote greater market access, improve value chain linkages, create strategic partnerships, thereby improving the prospects for long-term sustainability.

Over the past six months, ERLP has worked with upstream/downstream participants to strengthen the above-referenced value chains and increase the quantity and value of agricultural commodities under a strategically structured technical support plan. In this regard, ERLP has established 12 clusters of farm families in 13 districts across four governorates and facilitated the selection of community cluster representatives. To date, ERLP has successfully built the technical capacity of over 1,406 cluster participants through 63 training events. These events have improved output by introducing affordable, innovative technologies that can significantly improve input efficiency and increase productivity. As a result, ERLP skills training has substantially reduced postharvest losses and added value to farm products, thereby enhancing farmer productivity and increasing household incomes.

ERLP has also established four farmer field schools, which have helped maximize the project's demonstration-effect impacts by showcasing low-cost, high-return farming activities. These sites also incentivize farmers from outside of the participating cluster groups to adopt improved technological solutions and enhanced cultivation techniques, creating significant, indirect spillover effects.

ERLP learning platforms engage private sector input supply companies, business service providers, and government extension agents and demonstrate the productivity gains that can be realized by smallholder farmers who adopt improved farm management practices and new technologies. These sites demonstrate efficient water use, livestock fattening, greenhouse production, low-tunnel farming, the modern beehive, drip irrigation, and hybrid seed production. ERLP-supported technologies have the potential to provide an up to 300 percent return on investment in just 6-18 months.

To support sustainable market linkages to farm families in a manner that will significantly raise rural incomes on a sustainable, long-term basis, ERLP also identifies important downstream market opportunities to boost sales and increase household incomes. The project engages with clusters of farmers to build the capacity of cluster members to more strategically negotiate contracts with new buyers. By the end of the quarter, ERLP had facilitated 124 sales agreements worth $ 1.7 million.

QUARTERLY WORK ACTIVITIES AND DELIVERABLES

The ERLP SL Agriculture and Agribusiness component achieved the following targets outlined in the work plan: (i) preparing value-chain training material for three horticulture sub-sectors; (ii) conducting value chain training and establishing demo sites and farmer field schools (FFS) to provide farmers with hands-on training; (iii) implementing targeted technical assistance to partner traders, processors and associations; and (iv) expanding the database of new, qualified traders/key buyers, signing sales agreements, and identifying new processors. All activities undertaken incorporated gender and ensured the active participation of women to the greatest extent possible.

Table 44: Q2 Agriculture and Agribusiness Activities and Deliverables

Activity	Deliverables
Prepare value chain training material for new sub-sectors.	• Training material prepared for new sub-sectors, including chili peppers, melons, and onions. • 1,200 new cluster participants trained • Five new demo sites established: one on greenhouses, two on goat fattening, and one on improved beehives. • 2 FFSs established; one on tunnel farming and one on goat fattening. At FFS sites, hands-on-learning provided to 50 farmers • 150 farm-level visits conducted • Five new partnership agreements signed and relevant TA implemented • Ten new processors and exporters identified for next quarter. • 100 sales agreements signed between key traders and farmers within the 4 VC valued at $1 million in sales • $100k achieved from coffee and honey electronic platforms.
Conduct value chain training.	
Establish new demonstration plots.	
Establish new farmer field schools (FFSs) and conduct hand-on-learning sessions.	
Collect evidence demonstrating farmers applying new technologies or improved management practices.	
Follow up ongoing technical assistance for selected processors and preparation of a second group.	
Implement strategic market linkage strategic to close sales deals under each VC.	
Design technical intervention for honey and coffee exporters and processors, and provide technical assistance to livestock and horticulture processors.	

I. VALUE CHAIN TRAINING MATERIAL FOR NEW-SUBSECTORS

Based on Technical Assistance Needs Assessments (TANAs) conducted for new horticulture sub-sector clusters (onion, chili pepper, and watermelon), ERLP prepared training materials designed to address production weaknesses, improve yields, and crop quality, and reduce postharvest losses. The training materials also introduced new greenhouse and low-plastic tunnel technologies.

II. VALUE CHAIN TECHNICAL TRAINING, ESTABLISHMENT OF DEMO SITES AND FARMER FIELD SCHOOLS

ERLP technical training introduces improved, market-led farming practices and new technologies that can significantly impact the production and quality of coffee, honey, horticultural crops, and livestock. This quarter, the SL Agriculture component trained 688 farmers through 21 training sessions and established three demonstration sites and two farmer field schools (FFS).

Mr. Abdu loading his watermelons to sell in the local market. Photo: ERLP Livelihoods Team.

ERLP technical interventions address weaknesses identified through TANAs that impede production and agriculture sector growth. Training consists of classroom presentations and practical, hands-on learning in the field designed to improve production techniques, reduce waste, and enhance product quality. All participants are provided with manuals developed by ERLP technical advisors for future reference.

Horticulture Value Chain

Poor production, harvest, and postharvest handling practices result in low horticultural crop yields and significant wastage in Yemen. In response, tightly targeted ERLP technical/training support efforts improve small producer livelihoods in the horticulture value chain by improving production, harvest/postharvest handling practices, and creating sustainable market linkages. ERLP training educates farmers about modern techniques for growing tomatoes, onions, chili peppers, and watermelons, using greenhouses and low tunnels to improve production, enhance quality, and reduce waste.

During the quarter, ERLP established three FFS in the Khanfar District (Abyan Governorate); two on tomato processing and one on tunnel farming. ERLP provided hands-on learning to 31 female participants by conducting two FFS sessions on tomato processing. Another FFS session introduced 24 tomato producers to tunnel farming.

LOW-TUNNEL FARMING GROWS HIGH HOPES FOR ABYAN FARMERS

"I never expected to achieve nearly three times growth in my farm income." — Mr. Mohammed Abdu, Watermelon Grower, Khanfar District, Abyan Governorate

Mr. Mohammed Abdu is a watermelon producer and one of the 168 farmers who participated in an ERLP training on improved horticulture production practices. Watermelon producers in Southern Yemen generally grow watermelons by sowing seeds directly in their fields, increasing production cost due to a prolonged production period. To address this issue, ERLP introduced seedling production technology that reduces the production period by 6-7 weeks, provides 100 percent plant survival, and carries no disease when planted. In addition, ERLP experts introduced low-tunnel farming to protect watermelon crops against common diseases and pests, mainly mosaic virus and aphids, which has also significantly increased input productivity.

Mr. Abdu produces watermelons on 12 acres of land using traditional farming practices. He was unable to earn enough money to provide a quality living for his spouse and four children ages 3-12. Inspired by the training, Mr. Abdu decided to produce watermelons on one acre of his land using his newly acquired knowledge of the low tunnels and seedlings.

He was amazed by the results: a measurably healthier, more productive crop with fruit that was uniform in both size and shape, netting a 275 percent increase in profit compared to one acre planted using traditional farming methods. Over time, Mr. intends to employ low-tunnel farming to his entire field, as do other farmers in Abyan Governorate. Moreover, after witnessing these impressive results, the Abyan Agriculture Technical Institute immediately established demonstration sites to promote the benefits of low-tunnel farming.

During the reporting period, 132 farmers were trained in onion production management and postharvest handling in the Al Madharibah District (Lehj Governorate). By effectively applying greenhouses and tunnel farming, ERLP beneficiary farmers have significantly increased production while conserving water, fuel, and fertilizer to lower production costs and maximize the effective use of essential agricultural inputs. ERLP trainers focused intensively on the greenhouse production system and tunnel farming. These technologies have resulted in a 100 – 200 percent return on investment over an 8 – 18 month growing season. ERLP experts also introduced a modern seedling production method, using peat moss as a growth medium. Seedlings produced using this technology have lowered production costs and increased crop yield by 15-20 percent.

Livestock Value Chain

In Yemen, outdated breeding practices, poor nutrition, contaminated feed and water, and parasites and disease are widespread and largely unchecked. As a result, most domestic livestock show signs of malnutrition, parasite infestation, and poor genetic makeup. In response, ERLP targets smallholder farmers to improve their production and marketing capacities through practical technical training and quick-impact field demonstrations.

During the quarter, ERLP trained 306 small farmers, including 131 women (43 percent), in the Abyan and Hadramout governorates. The training focused on proper nutrition, examination, and diagnosis. Improvements in these areas can significantly improve productivity and reduce economic losses.

Key training topics included feeding, feeding requirements during various stages of life, balanced rations, maintenance of quality feed, and the importance of fresh drinking water. Trainees also learned about proper hoof trimming, growth maintenance/monitoring, caring for livestock during pregnancy and lactation, and constructing livestock feeders and drinkers (using locally available materials). Additionally, trainees were introduced to prevention measures and management of regular outbreaks of screwworm infestations.

During Q2, nine training sessions were completed through the two new demonstration sites established this quarter in Tuban (Lehj Governorate) and Ad-Dees Asharqiyah (Hadramout Governorate), or 25 sessions in total. These sessions showcased and promoted fattening as a highly profitable small farming enterprise that can provide over 40 percent return on investment in just three months. ERLP experts have planned an additional six sessions during Q3.

Honey Value Chain

Among the four ERLP value chains, honey holds the highest upstream (production) and downstream (processing and marketing) potential for substantial growth. However, local honey producers lack the experience and know-how to produce quality, significantly higher value-added products. To leverage the sector's full potential, ERLP provides producers with the technical knowledge needed to combat honeybee pathogens effectively and increase productivity through modern beehive and beekeeping best practices. Beekeepers are shown how to harvest and process high-quality products and use more effective packaging, labeling, and branding. The project also provides access to profitable markets for value-added, natural, organic products.

This quarter, ERLP trained 171 honey cluster participants in Shibam District in Hadramout Governorate and Radfan District in Lehj Governorate. ERLP training covered a wide range of modern beekeeping practices and honey processing technologies, including types of hives (focusing on the modern beehive), queen bee rearing, and enhanced control of common bee diseases. ERLP training also introduced producers to multiple uses of previously discarded beeswax. Improved quality, presentation, and postharvest management practices introduced by ERLP experts are measurably improving production and product value.

The project further enhances product value by ensuring that products meet regional and international quality standards and are more effectively and aggressively marketed to niche markets. For example, *Sidr* honeycomb, traditionally harvested in round-shaped, one-kilogram tin containers, is in high demand in the Gulf states. However, honeycombs produced from modern beehives are rectangular and have to be cut to fit in the round tins, resulting in significant wastage. ERLP has, in this regard, established a demonstration site to showcase a modified form of the modern beehive that can produce honeycombs of the desired size and shape, while maintaining the same level of productivity.

Gender Mainstreaming

In recognition of women's crucial contributions to agriculture, gender mainstreaming remains at the core of ERLP Sustainable Livelihoods support activities. One of the primary causes of the sector's underperformance in Yemen is that women lack adequate access to production resources and opportunities. The resulting adverse impacts include lost agricultural output, increased food insecurity, and diminished economic growth. Overcoming the gender gap is vitally important, considering that women typically spend more than their male counterparts on food, health, clothing, and education for their children. When women's incomes increase, their dependents enjoy a higher standard of living.

ERLP designs and implements initiatives that expand women's participation in all four value chains. By improving women's access to inputs and creating new opportunities by identifying and disseminating industry best practices, ERLP transfers the knowledge and information needed to achieve successful outcomes. To date, ERLP has trained 776 women (39 percent of all project beneficiaries), including 469 in livestock, 127 in horticulture, 114 in honey, and 56 in coffee.

III. NEW PARTNERSHIPS ESTABLISHED AND TECHNICAL SUPPORT PROVIDED

This quarter, the ERLP developed and implemented strategic technical interventions for seven project-supported traders, processors, and associations with incremental sales totaling $454k. ERLP's downstream technical interventions included distribution, wholesaling, and retailing, all of which helped ensure timely delivery to clients. The table below provides the complete list of ERLP partners that received ERLP technical support this quarter by value chain, location, specific support intervention, and incremental revenue generated:

Table 45: New Partnerships Established and Technical Support Provided

Partner	Value Chain	Location	Intervention	Incremental Local Sales Value (US$)	International Sales Value (US$)	Country
Mokha Story	Coffee	Taiz	Strengthened buyer-seller relationships		7,000	UK
Hadramout Center for Honey	Honey	Hadramout	Developed and implemented a comprehensive	5,000		Yemen

Partner	Value Chain	Location	Intervention	Incremental Local Sales Value (US$)	International Sales Value (US$)	Country
			marketing and outreach strategy			
Bin Bishr	Honey	Shabwa	Identified new marketing channels with improved coordination links between farmers, processors, and international buyers.		135,000	KSA
Youssef Honey Center	Honey	Seyoun	Enhanced the productivity of networks of small farmers and identified new international buyers to diversify the client base.		23,000	UAE
Al Assil for Honey	Honey	Hadramout	Marketed previously discarded beeswax		105,000	KSA
Bin Abood for Honey	Honey	Abyan	Strengthened buyer-seller relationships	99,000		Yemen
Beekeepers' Cooperative Society	Honey	Shabwa	Facilitated new sales agreements between farmers and local buyers/distributors.	80,000		Yemen
Total				**184,000**	**270,000**	

IV. EXPANSION OF DATABASE OF NEW QUALIFIED TRADERS/KEY BUYERS, SIGNING NEW SALES AGREEMENTS, AND IDENTIFYING NEW PROCESSORS

By fostering innovation, employing industry best practices, and identifying new export opportunities, ERLP has better integrated Yemen into more lucrative regional and international markets. ERLP downstream support interventions and strategically targeted technical training and marketing support have significantly lowered transaction costs, while enhancing distribution channels. This, in turn, has resulted in multiple new, sustainable export opportunities with large buyers in Germany, Singapore, Korea, and the United States.

The ERLP buyer database has been expanded to include more than thirty new traders and buyers, with important local and international connections. The ERLP SL Market Linkages experts exceeded key targets for the quarter, signing 124 new sales agreements (against a target of 100) valued at $1.7 million (against a target of $1 million). New international sales agreements between farmers, exporters, and international buyers totaled $398,800.

The below table provides the details of the new sales agreements concluded between farmers, producers/traders, and exporters during the quarter:

Table 46: New Sales Agreements

Value Chain	Local Sales Value (US$) including new Sales Agreements	International Sales Value (US$)	Country
Coffee	38,000	143,600	US, UK, Germany, KSA, Korea
Honey	1,242,000	255,200	UAE, KSA, Singapore
Total	**1,280,000**	**398,800**	

Honey Value Chain

In response to findings from an ERLP honey value chain assessment, ERLP advisors worked with beekeepers and processors to develop new comprehensive marketing and outreach strategies. The new strategies and related ERLP technical/training support have greatly enhanced the productivity of networks of small farmers. They have also identified promising new international buyers that have measurably expanded and diversified their customer base into more profitable domestic and foreign markets. During the reporting period, ERLP advisors facilitated multiple transactions between beekeepers in Hadramout and Shabwa governorates and key local and international buyers. These included:

1. Youssef Honey Center in Seiyun (Hadramout Governorate) and UAE-based Doan Valley for Honey, for 19,488 kg of honey totaling $23,000
2. Bin Bishr, a strategic ERLP partner in [district/governorate] with strong international connections and a prominent trader in the KSA, for 6,216 kg of honey totaling $108,000
3. Beekeepers in Alrawdah and a large trader in the KSA, for 420 kg of honey totaling $27,000
4. Domestic trader Al Aseel for Honey and KSA buyers, for 1,400 kg of honey totaling $97,200

ERLP is measurably improving the capacity of beneficiary farmers to competently and sustainably address market constraints identified by ERLP SL/ML advisors. In this regard, the project's two-pronged approach focused on significantly and sustainably increasing farm family incomes and their resilience.

Similarly, ERLP/SL Market Linkage experts have helped beekeepers in Shabwa and Hadramout governorates market their beeswax—a natural and eco-friendly wax produced by honeybees with multiple commercial uses. Small farmers routinely discarded beeswax in Yemen as a useless byproduct in honey production. For example, during this quarter, ERLP facilitated the sale of 1,010 kg of beeswax by ERLP partner and key trader Al Aseel, the Saudi Association of Beekeepers, valued at $6,263. Incremental revenue from beeswax help diversify ERLP beneficiary farm-family revenue streams and increase household incomes.

Coffee Value Chain

This quarter, the ERLP/SL Market Linkage (ML) component continued to work with coffee value chain stakeholders in Taiz Governorate to build robust buyer-seller relationships within the context of the current constrained COVID-19 environment. The project provided support to more than 300 coffee farmers in two major districts in Taiz Governorate, expanding linkages with new international buyers/markets throughout the governorate. Based on green coffee samples provided by the ERLP, buyers in Germany, the UK, and South Korea have confirmed their interest in purchasing coffee from ERLP partner farmers. This quarter, multiple sales agreements were successfully concluded. These included the sale of 50 kg of quishr (dried husks of coffee cherries used to brew traditional Yemeni spiced tea) and 250 kg of high-quality green coffee beans to a UK-based coffee trader, totaling $7,000; and the sale of 200 kg of specialty coffee green beans to U.S.-based Al Aseel for Coffee, totaling $9,420.

In addition, ERLP is working with international traders to establish one-year, renewable contracts that will generate $300-500k in incremental revenues.

Horticulture Value Chain

During this quarter, ERLP ML experts worked with Al Fallah Association — a cooperative that processes and distributes onions in Hadramout Governorate—to develop and implement an ambitious export strategy. The association has explored new markets in the region, including KSA. In support of these efforts, ERLP ML experts developed a comprehensive, short-term game plan addressing critical organizational weaknesses. Concurrently, ERLP developed a new marketing strategy that has increased Al Fallah's access to sustainable international market opportunities. As a direct result of this intervention, the association created 15 new positions to meet market demand, leading to an increase of 40% in annual revenue.

CONCLUSION/NEXT STEPS

ERLP SL advisors have delivered technical training to 2,014 farmers and established four demonstration sites and four farmer field schools. In Q3, ERLP advisors will complete all the cluster training and conduct village/farm level visits to collect evidence showing that farmers are successfully applying modern production technologies promoted by the project. During these visits, the ERLP SL team will encourage cluster farmers to apply their newly acquired knowledge, tools, approaches, and skills to expand production further and increase sales. The project will also promote profitable small farming enterprises by organizing additional farmer field days at ERLP demonstration sites. Three additional demonstration sites and farmer field schools will be established to expand hands-on learning.

In addition to ERLP market linkages, experts will continue to implement targeted technical/training assistance to partner traders, processors, and associations to build on and significantly further expand initial market outreach progress and further grow the qualified traders/key buyers and sales database. ERLP will also finalize the design of the electronic platform for sales. Through this online platform, ERLP aims to make Yemeni coffee and honey varieties available to consumers worldwide.

Moreover, in close coordination with the ERLP fisheries experts, ML experts plan to expand the platform's design and include the Yemeni fisheries value chain, taking full advantage of the benefits of intensive ML information-sharing opportunities. The unique platform will embed the three value chains and be available for international buyers by June 2021.

2.2.2 FISHERIES

BACKGROUND

Fishing was once Yemen's second-largest economic sector after oil and gas, producing approximately 400,000 tons of seafood annually while providing livelihoods for over 2.5 million Yemenis. The prolonged conflict dealt severe blows to much of the sector's infrastructure, reducing fishing ranges and exacerbating inefficiencies in the sector's management and governance. The fishing industry is further constrained by a series of institutional and market-linkage constraints that severely inhibit competitiveness and hinder robust income-generation opportunities.

The COVID-19 lockdown and sanitary measures led to additional disruptions, causing ripple effects across the entire value chain. Fisherfolk have seen a steep drop in demand and prices. Processors lost access to lucrative regional and international markets as global restrictions on air, land, and sea borders restricted seafood exports. Coastal women have been disproportionally impacted, losing higher-paid fish-processing jobs, and left with low, typically unpaid caregiving and domestic work.

ERLP is working with a broad range of fishing industry stakeholders to help restore and sustainably improve the sector's performance. The project works directly with fisherfolk to improve capture methods, handling, and preservation practices that significantly impact catch quality and quantity.

The project also works with processors to strengthen management, boost production, and strengthen compliance with international quality and safety standards. Market linkages to more lucrative regional and international markets are also being bolstered. To date, ERLP provided support to 18 fisheries-related businesses, five seafood processors, 17 fisheries associations, 183 fisherfolk, and 123 coastal women.

"The training has not only helped my business but also shaped my personality. I was a secluded and shy person, who didn't know anything beyond the perimeter of my house and family. Now, I socialize with new people and discover a new thing every day about myself, my community, and the world. I believe in myself and know I have the potentials and capacity to realize my dream—to expand my business."

—Ebtisam Al Baras, Business Owner (see her success story in Annex 31)

ERLP experts have identified new regional/international markets for tuna, sardines, octopus, and fish oil, while concurrently helping seafood processors improve product quality and quantity. The project also collaborated with several ice plants to enhance the availability of crushed ice, fiberglass boat builders to help secure more reliable shipping vessels, and seafood processors to add value to products sold on international and domestic markets. ERLP is, in this regard, centrifugally focused on helping Yemeni fisherfolk and fish/seafood processors integrate effectively into regional and international export markets, for which massive unexploited potential exists. Moreover, consistent with the project's holistic approach to developing the sector, ERLP has also provided direct assistance to coastal women by supporting the design and successful marketing of handmade seashell jewelry and accessories.

ERLP fisheries sector support extends to three southern governorates—Aden, Hadramout, and Al Mahra—reaching into remote communities such as Al Dees, Al Sharqya, Seyhout, and Emran. In all locations, local communities have been actively engaged in the project's implementation.

QUARTERLY WORK ACTIVITIES AND DELIVERABLES

In Q2, ERLP developed partnerships with four major seafood processors: Al Tibat, NAF, Aden Stores, and Burum Seafood Co. Support to these processors included training on fish handling and food hygiene standards for workers, developing value-added seafood products targeting local, regional, and international markets. The project promoted Yemeni seafood products, identifying and building relationships with buyers and improving the quality and competitiveness of processed seafood products. ERLP also provided vocational skills training to coastal women to help them start their own microenterprises or gain employment with existing businesses.

The project delivered technical assistance and training to 106 coastal women during Q2. This helped them gain new or better employment; and supported women-owned microenterprises to generate increased sales.

Table 47: Q2 Fisheries Activities and Deliverables

Activity	Deliverables
Vocational skills development	60 new coastal women attained new skills or upgraded skills to increase their incomes (e.g., food processing, dry and salted fish)
Fish handling	At least 60 new fisherfolk trained in improved fish handling. 20% Increase in income reported.
Quality standards training	Five seafood processing plants reported improved hygiene and quality standards.
Provide technical/training assistance to seafood processors and other fisheries-related businesses	Five fisheries-related businesses received technical support. At least 10% incremental sales reported. $1M in additional export sales reported

I. COASTAL WOMEN SKILLS DEVELOPMENT SUPPORT

New Seafood Recipes for Female Entrepreneurs

ERLP provides targeted capacity-building support to women living in communities along the Red Sea. Technical assistance, training, coaching, and mentoring help coastal women overcome systemic socio-institutional and economic constraints impeding their access to sustainable employment, as well as other income-generating opportunities.

This quarter, the project signed an agreement with the Selah Foundation[2] to design and implement training on preparing new seafood recipes, culinary techniques, and basic financial skills to build the capacity and resiliency of 60 women living in coastal communities. Upon completing the training in early February, the women were introduced to event organizers seeking caterers at various public and private entities/events, including local bakery shops that regularly outsource various food items from home-based producers.

Women from remote coastal communities receive entrepreneurship and business skills training.

ERLP and the Selah Foundation also organized bazaars/outdoor markets in three communities to promote women's products. Of the 60 women trained, so far 40 received new employment or better employment (including better self-employment) due to participation in this joint effort.

Moreover, through this partnership, ERLP has built extensive local and regional networks that enable gender-focused job generation activities in several districts and villages in target governorates. ERLP has also initiated collaboration with Al-Amal Bank—a partner financial institution under the ERLP/Access to

[2] The Selah Foundation for Development (https://selah-ye.org) is a non-profit, non-governmental organization that provides grants for achieving sustainable development in education, health, development, and care for Yemeni people.

Finance component—to focus on the credit needs of fisheries sector project beneficiaries interested in starting home-based microenterprises.

Seashell Jewelry and Accessories Making

During the quarter, ERLP proactively explored with local women's associations' collaborative opportunities to promote diversified and independent income-generation opportunities for coastal women. ERLP experts have also assessed practical approaches to reduce unpaid care work, which prevents women from obtaining paid employment and individual/group participation in other sustainable income-generating opportunities.

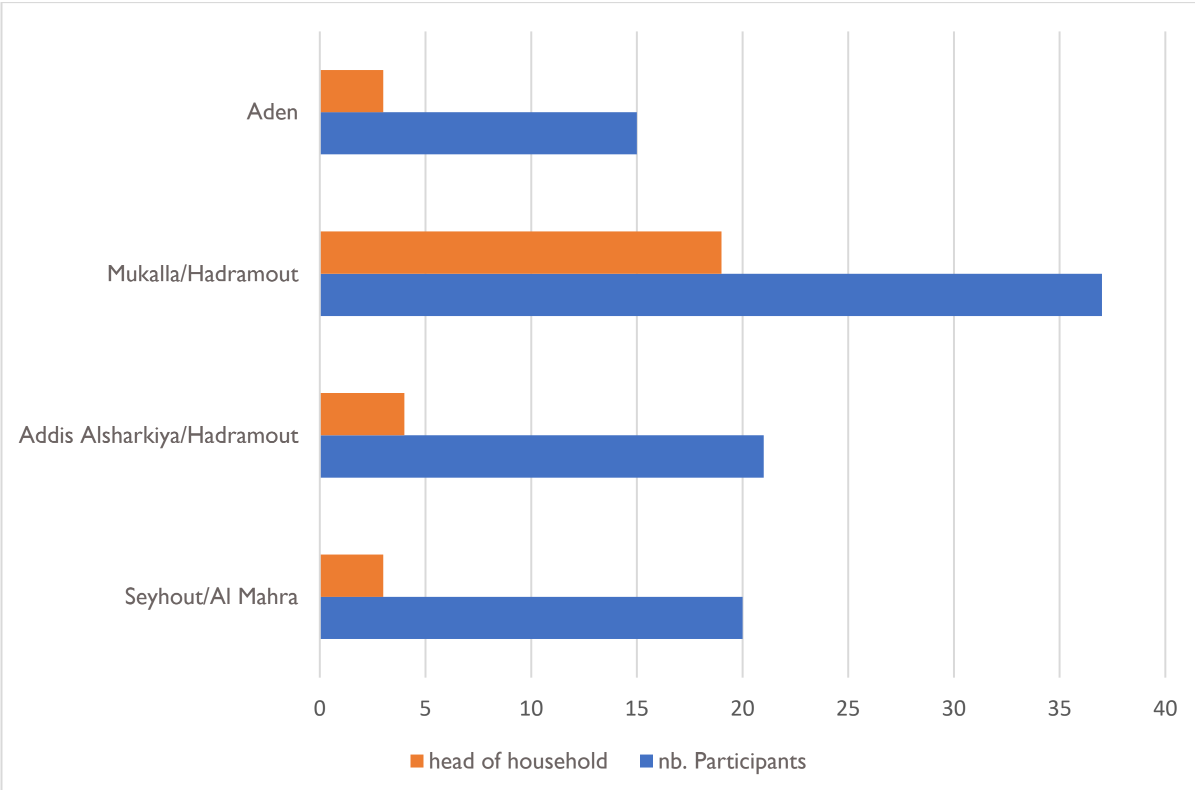
Handmade seashell jewelry and accessories represent a potentially profitable entrepreneurial activity with significant potential to increase household incomes and reduce the marginalization of women. This quarter, 46 women from remote coastal regions in the Aden and Hadramout governorates were selected to receive skills and creativity-development training to learn how to make handmade seashell jewelry and home accessories. Participants attended blended training sessions conducted by local and regional trainers. In addition, ERLP advisors provided targeted market linkage support to the women to identify potential domestic, regional, and international buyers.

Coastal women receiving training in seashell accessories making.

Assessing ERLP Intervention with Coastal Women

During Q2, the project partnered with local organizations such as the Selah Foundation and various women's associations to leverage high attendance at seafood recipe and jewelry-making training/outreach interventions. These partnerships have effectively provided access to women in hard-to-reach remote communities, such as Aldiss Alsharkiya and Seyhout, where donors generally do not operate. Participants were selected based on need, with priority given to IDPs, single women, and heads of households.

Chart 9: Location of Participants and Number of Female Head of Household



II. SUPPORTING FISHERMEN TO IMPROVE FISH HANDLING

Aden Stores Company for Trade, Industry, and Storage is a leading seafood processor founded in 2003 in Aden. The company exports frozen seafood products primarily to Bangladesh, Egypt, and UAE. Its sales increased by 30 percent from 2019 to 2020, with the potential to grow an additional 35 percent by the end of 2021. To unleash this potential, ERLP delivered targeted capacity-building support to upskill 76 production-line workers. The training included modern fish processing techniques (bleeding, gutting, and gilling) and essential cold-chain guidelines. Proper processing and refrigeration reduce wastage, improve quality, and command considerably higher prices. A follow-up HRM and operations intervention with Aden Stores Company is under development for Q3.

III. ERLP SUPPORT TO SEAFOOD-PROCESSORS

ERLP is currently working to improve hygiene and quality standards at four fish processing plants. Technical support initiatives were undertaken during the quarter with Aden Cold Storage, Buram Seafood Company, and the National Fish Canning and Packing Plant. A 5th partnership agreement was negotiated with Al Tibat Factory for Fishmeal for Q-3 as well.

Burum Seafood Company

Founded in 1994 in Al Shihr, Hadramout, Burum Seafood Company is among the largest seafood firms in Yemen, employing 300 workers and retailing more than 3,900 tons of fish in 2018. The company exports a wide selection of seasonal frozen seafood to Europe, China, Asia, and the Middle East, with sales of US$15 Million in 2019. However, due to pandemic-related border closures and operational restrictions, the company registered a 35 percent decrease in - 2020 sales.

While the company has shown a considerable capacity for further growth, it continued to operate well below capacity because of the ongoing market disruptions.

In consultation with the company's senior management team, ERLP advisors designed and developed a targeted technical and training support activity designed to reposition the company's processing and commercial activities, allowing it to weather the COVID-induced slump more effectively, and to stabilize and expand production and sales. ERLP support to Buram will conclude in Q3. The effort is supporting: (i) the expansion of fresh, processed tuna exports; (ii) the increased production and processing of value-added seafood products, and (iii) the development of 3-4 value-added frozen seafood products for local consumption, using previously discarded fish parts and low-cost sardines and other fish varieties.

This rapid repositioning strategy will enable Burum to diversify its product line and rapidly expand domestic sales and exports, thereby recovering from the precipitous decline in seafood exports caused by the disruptions of the pandemic mitigation measures.

The National Fish Canning and Packing Factory (NAF)

The National Fish Canning and Packing Factory (NAF) is a new seafood processing plant that initiated operations in March 2021 in Hadramout. NAF produces fresh, canned, and frozen fish, fishmeal, and fish oil, with a production capacity of up to 100 tons/day and a refrigerated storage capacity of nearly 4,200 tons. To maintain quality and reduce spoilage, NAF plans to produce food-grade crushed ice in-house with a total production capacity of 22 tons/day. When fully operational, the facility is expected to employ over 250 workers.

In Q2, the ERLP SME and Fisheries components conducted multiple, in-depth working meetings with NAF management related to its business model, strategic approach, product lines, target markets, and planning. A comprehensive game plan emerged from these meetings, including designing and developing a cutting-edge operational structure, equipment needs, efficient, streamlined processing methods, and development of the internal management capacity to achieve production efficiencies and reassure investors of its short, medium, and long-term potential and viability.

ERLP fisheries expert conducts training for a group of processors in Aden Stores Co.

The project developed a detailed business process diagnostic/design exercise supporting the integration of critical functions within the company. These included: (i) strategic design and execution; (ii) business/manufacturing process design and workforce planning; (iii) development of human resource processes and systems; (iv) design of a quality management function; and (v) change and continuous improvement of all departments of the company. ERLP technical assistance and training will continue through Q3. Anticipated outcomes of the intervention include 250 FTE new jobs created and incremental sales increased.

IV. ICE PLANTS

ERLP Fisheries experts provided technical assistance to 13 ice plants to maintain quality and help increase production. ERLP demand-driven support interventions were designed and implemented based on focus group discussions with nearly a dozen fisheries associations and private sector ice plants, including 120 fisherfolk and spokespersons from the fisheries associations. All professed the need to acquire advanced knowledge of cold-storage system maintenance and repair. They also reported that existing ice plants could not satisfy the high demand for ice during peak fishing seasons.

A major ongoing constraint was the inability to guarantee the 24/7 operation of the ice makers. The machines frequently broke down, and the lack of qualified technicians made routine maintenance time-consuming. ERLP technical support significantly increased production and expanded refrigerated storage capacity to help meet fishing community demand. Overall, ERLP support helped drive an approx. $300,000 in increased sales for the group of ice plants supported through the program.

V. COASTAL WOMEN

Following the successful implementation of ERLP skills development training for coastal women, most participants created their home-based microenterprises or scaled up the production capacity of their existing businesses. ERLP supported the participants to access the market by introducing them to potential buyers in their communities, including bakeries and other private businesses. Some participants have secured contracts and have become major suppliers for weddings and other large social events in their communities. During Q2, the participants reported over $12,000 in 1st stage sales, which are expected to expand significantly during the next two quarters.

Fiberglass Boat Maintenance and Repair Technicians:

ERLP provided advanced training in fiberglass boat maintenance and repair to ten fisherfolk in the Mahra governorate, selected by their respective fisheries associations. Improved maintenance contributes to fuel efficiency, sea safety, and increase vessel longevity. It allows fisherfolk to reliably sail farther from shore on longer fishing trips, which significantly improves catch quality and reduces overexploitation of inshore resources.

Boat repair trainees in Al Shiher, Hadramout, were able to use their training and start-up kits to establish urgently needed businesses in their communities. Photo: ERLP Team

After successfully completing the training, each participant received a basic toolkit to start up their own small business in their community. Local maintenance and repair facilities can potentially extend fishing days by 2-4 days per month (days previously lost due to lengthy and costly trips to the repair shops in central Mukalla), thereby further increasing fisherfolk/household incomes. Seven sustainable new jobs were created, generating an average monthly salary of US$150 per person/month during the first quarter and $270 per person/month in the second quarter. These salaries are well above the average (approx. US$100) for the coastal regions.

V. INCREASING EXPORT SALES

ERLP market linkage experts continued promoting export opportunities and market linkage development for Yemeni seafood products, mainly tuna, octopus, sardine, and shark liver oil.

At the start of the tuna season, ERLP proactively explored the possibility of exporting fresh tuna to U.S. markets. While fresh fish exports from Yemen to the U.S. are feasible, exporters must first meet strict U.S. federal agency requirements specific to Yemen. The project will continue over the next two quarters to seek out opportunities for facilitating access to the U.S. market for fresh tuna exporters.

The project also identified during the quarter an overland channel for exporting Yemeni fish to Salalah, Oman, without changing trucks and drivers at the border. This would enable the Yemeni fish exporters to expand their exporting expertise and experience and increase scale sufficiently to entice one or more air carriers to transport fresh/frozen seafood via regional airports. ERLP is also promoting sardine products, linking project partner processors with potential customers, including fishmeal made from fresh and frozen sardines. This has already resulted in a US $300,000 export deal for frozen sardines between a local processor in Al Mahra governorate and a trader in Oman.

Similarly, viable opportunities have been identified for exporting frozen octopus regionally. This will mean building the capacity of Yemeni processors to supply highly sought-after flowered octopus. In response, ERLP is working with the Burum Seafood Company to help source needed equipment to facilitate local production of flowered octopus.

Shark liver oil production for export is also being supported. This quarter, ERLP facilitated the export of two barrels of oil to a potential buyer in the UAE for squalene testing. Subject to test results, the buyer has expressed interest in an initial pilot shipment of 50 barrels (worth an estimated US$63,000).

Overall, the fisheries export deals currently being negotiated are slated to generate increased sales of over US$1million for Yemeni exporters. The table below summarizes ML support provided in Q2.

Table 48: ERLP Market Linkage Support to Yemeni Seafood Processors

Product	ERLP Market Linkage Support	Export Sales Provision
Frozen and Fresh Yellowfin Tuna	• Assessed the logistics of exporting fresh Tuna to EU and U.S. markets. • Updated prices according to prevailing global market trends. • Obtained orders from buyers in the U.S. and Japan.	• Awaiting confirmation to process exports of fresh tuna. • Expected sales of Frozen Tuna will reach $350K
Canned and frozen sardines for human consumption. Fishmeal for aquaculture.	• Facilitated sardine exports to Oman by linking two local fisherfolk with Omani seafood traders.	• Sales agreements reported with an estimated value of $300k during the high season (March-May)
Processed and frozen, flower-shaped octopus.	• Surveyed octopus pricing, quality, and potential buyers. • Identified major flaws in octopus products offered by Yemeni processors and recommended approaches to enhance processing and packaging efficiencies.	• Partnered with Burum Seafood Co. to improve octopus processing. • Cost-shared flowering octopus machine to improve processing and packaging. • Contacted 3 EU buyers interested in potentially purchasing Yemeni octopus, subject to appropriate quality standards.

Table 48: ERLP Market Linkage Support to Yemeni Seafood Processors		
		• Expected sales of Flowered octopus will reach $300K
Shark liver oil: 180 kg barrels	• Assessed global market demand for Shark liver oil. • Identified growing demand for shark oil, driven by its perceived health benefits. • Identified a buyer in UAE and sent samples to test the quality and nutritional value of Yemeni shark oil.	• UAE buyer intends to place an initial order of 50 barrels of shark liver oil, with an estimated value of $ 63k.

CONCLUSION/NEXT STEPS

During Q3, ERLP will continue implementing tightly targeted technical assistance and training activities supporting fisheries sector competitiveness and sales/export expansion. These will include:

1. Working with Burum Seafood to increase the production and processing of value-added seafood products, including exports of frozen flowered octopus to international markets identified by ERLP ML experts.
2. Continue competitiveness enhancement work with NAF to help drive significant sustainable increases in sales and employment.
3. Promoting enhanced A2F for fisherfolk by establishing sustainable outreach linkages between credit-worthy fishing entrepreneurs/coops and fish/seafood processing firms, with ERLP partner financial institutions.
4. Promoting expanded hand-crafted production by women living in coastal communities in a manner that significantly increases their income levels (this type of activity often represents their sole source of income).
5. Training a large additional number of fisherfolk in fish handling and food hygiene standards.

MONITORING, EVALUATION, AND LEARNING

ERLP engages with the public and private sectors in Yemen, working to address the critical macroeconomic stabilization and private sector competitiveness enhancement challenges, which need to be addressed to stabilize economic conditions and sustainably enhance employment and earnings opportunities for the Yemeni people. These objectives will be accomplished through the achievement of two core component results: (1) macroeconomic functions of key institutions improved by strengthening the capacity of ROYG institutions (CBY, MOF, the Customs Authority, and port authorities) to restore macroeconomic stability, enhance the efficiency of fiscal management and increase international trade flows; and (2) microeconomic conditions improved seeks to strengthen private sector performance and competitiveness to create jobs and raise incomes.

To measure and report on the achievement of the eleven ERLP results statements, the Pragma Corporation utilized 25 performance indicators. Of these performance indicators:

- A total of 17 or 68% are ERLP contract required indicators.
- A total of 2 or 8% will be collected by USAID through an evaluative process.
- A total of 16 or 64% are custom or USAID standard archived (and now custom) indicators.
- A total of 14 of 56% are gender-sensitive indicators; and
- A total of 9 or 36% are Foreign Assistance Framework Economic Growth standard indicators.

ERLP MEL ACHIEVEMENTS DURING THE PERIOD OF PERFORMANCE

During the period of performance, the following ERLP MEL tasks were achieved:

- Jan-March 2021: ERLP responded to five YCLE-USAID Monitoring reports and attended debriefing calls with YCLE and USAID staff to review the third-party monitoring reports, including the data collection methodology, findings, and recommendations. All 5 ERLP events had very positive feedback with no issues or recommendations actions raised.
- Jan-March 2021: ERLP provided to YCLE the monthly implementation plans for ERLP field activities – these plans are used by USAID to identify and schedule remote verification of ERLP events.
- March 2021: As part of an internal adaptive management review of ERLP MEL procedures to improve the relevance and usefulness of MEL data to make implementation decisions, the MEL team reviewed the Partnership Agreements (PAs) used by the SME technical team. As a result, the PAs were slightly modified to better collect baseline and outcome data for sales and jobs and report on women-owned businesses.
- March 2021: ERLP initiated baseline data collection for five key trade indicators.

ERLP GEOGRAPHIC INFORMATION: BY COMPONENT

MAP OF ERLP FIELD ACTIVITIES BY COMPONENT (JANUARY – MARCH 2021)

MAP OF ERLP ACTIVITY BY COMPONENT – FOCUS ON ADEN (JANUARY – MARCH 2021)

MAP OF ERLP ACTIVITY BY COMPONENTS – FOCUS ON MUKALLAH (JANUARY – MARCH 2021)

PERFORMANCE INDICATOR ANALYSIS

The ERLP MEL plan functions as a key element that is fully integrated into the technical implementation. As a result, there is an operational feedback loop between implementation tasks and MEL. Performance data and information are shared in near real-time with the ERLP managers and decision-makers.

For this performance report, ERLP reports 16 indicators or 67 percent of the total proposed AMELP performance indicators – a 77 percent increase from the prior progress report. Each performance report is expected to report on additional indicators. Initially focused mainly on output indicators, the reports gradually introduce outcome indicator data and finally report impact indicators at the end of the program. This process reflects not only the ERLP theory of change but also the expected pace of change.

OUTCOME 1: MACROECONOMIC FUNCTIONS OF KEY INSTITUTIONS IMPROVED

Indicator 1.a: Number of laws, policies, or regulations formally proposed, adopted, or implemented as supported by USG assistance: This custom ERLP indicator is based on a USAID standard Foreign Assistance Framework indicator and has been tailored to the Yemen context. ERLP Trade and CBY technical staff collect data for this indicator. Note that steps are not necessarily progressive, and some may be skipped altogether, or later steps occur before prior steps. Progress during Q1 of FY2021 is being reported for the first time, as there was a slight lag in collecting the data. As of this period of performance, the data lag has been eliminated.

During the performance period, ERLP made good progress as two priority regulations were proposed and submitted to the Central Bank of Yemen (CBY). The CBY approved both the model internal compliance procedures for financial institutions and the regulation on Anti-Money Laundering Counter-Terrorism Financing (AML/CFT). Building on the success of the processor project, early progress was made in working with the CBY on proposed Foreign Exchange Auction regulations. During the period of performance, the ERLP team continued to work with the CBY to update and fine-tune the proposed draft regulation. Additionally, the CBY Banking Supervision Department (BSD) approved the AML/CFT in March 2021. Progress on implementation is imminent, as the Head of the CBY Financial Institutions Unit (FIU) noted that the manual on internal compliance procedures would be updated, and new instructions will be sent to banks and financial institutions in the next few months. Finally, the CBY team is expecting that the protocol on the channels for information exchange will be approved by the CBY in the next quarter.

<table>
<tr><th colspan="6">Table 49: Actuals for ERLP 1.a Number of laws, policies, or regulations formally proposed, adopted, or implemented as supported by USG assistance</th></tr>
<tr><td colspan="2">LOP TARGET</td><td>500[3] points</td><td colspan="3" rowspan="2">ACTUALS</td></tr>
<tr><td colspan="2">LOP % ACHIEVED</td><td>70%</td></tr>
<tr><td colspan="2" rowspan="2">ACTUALS (CUM.)</td><td rowspan="2">350</td><td>FY21 Q1 TOTAL</td><td colspan="2">FY21 Q2 TOTAL</td></tr>
<tr><td>TOTAL POP 140</td><td>TOTAL POP</td><td>210</td></tr>
<tr><td colspan="3">MILESTONE STEP (POINTS)</td><td colspan="3"></td></tr>
<tr><td rowspan="4">PROPOSED</td><td colspan="2">Concept/Agreement (10 Points)</td><td>40 (Anti-money laundering/Counter terrorism financing regulation; Model internal compliance procedures for IFIs; Protocol on the channels for information exchange; FX Auction Regulation)</td><td colspan="2"></td></tr>
<tr><td colspan="2">Discussions between ERLP and Counterparts (10 Points)</td><td>20 (Anti-money laundering/Counter terrorism financing regulation; FX Auction Regulation)</td><td colspan="2">20 (Model internal compliance procedures for IFIs; Protocol on the channels for information exchange)</td></tr>
<tr><td colspan="2">Workshops with Counterparts (30 Points)</td><td>60 (Anti-money laundering counter terrorism financing regulation; FX Auction Regulation)</td><td colspan="2">60 (Model internal compliance procedures for IFIs; Protocol on the channels for information exchange)</td></tr>
<tr><td colspan="2">Draft prepared and Translated (20 Points)</td><td>20 (FX Auction Regulation)</td><td colspan="2">60 (Anti-money laundering/Counter terrorism financing regulation; Model internal compliance procedures for IFIs; Protocol on the channels for information exchange)</td></tr>
<tr><td rowspan="2">ADOPTED</td><td colspan="2">Submitted to Counterpart (10 Points)</td><td></td><td colspan="2">30 (Anti-money laundering/Counter terrorism financing regulation; Model internal compliance procedures for IFIs; Protocol on the channels for information exchange)</td></tr>
<tr><td colspan="2">Approved (20 Points)</td><td></td><td colspan="2">40 (Anti-money laundering counter terrorism financing regulation; Model internal compliance procedures for banks/Financial Institutions)</td></tr>
</table>

[3] The LOP target includes: 5 laws, policies, procedures, or regulations adopted.

Table 49: Actuals for ERLP 1.a Number of laws, policies, or regulations formally proposed, adopted, or implemented as supported by USG assistance			
IMPLEMENTED	Sent to Line Ministries (10 points)		
	Line Ministries issue guidance (10 points)		
	Enforced (10 points)		
TOTAL		70	210

INTERMEDIATE RESULT 1.3: TRADE FACILITATION POLICY DEVELOPMENT AND IMPLEMENTATION STRENGTHENED

Indicator 1.3f – WTO Trade Facilitation Agreement provisions, recognized as substantive improvements and specified in conjunction with USAID, adopted (linked to EG 2.1-1) The data for this indicator is collected from the ERLP Trade experts and then verified by the MEL staff through a review of the supporting evidence. During FY21 Q2, ERLP provided technical advice and training to the Yemen Customs Authority focused on seven key provisions of the WTO TFA. Support for three additional provisions is expected to commence in April 2021. Other performance indicators – specifically 1.a "Number of laws, policies, or regulations formally proposed, adopted, or implemented as supported by USG assistance" – cover additional trade/customs relevant outcomes.

Table 50: Actuals for ERLP 1.3f: WTO Trade Facilitation Agreement provisions, recognized as substantive improvements and specified in conjunction with USAID, adopted (linked to EG 2.1-1)		
LOP TARGET	18	ACTUALS
LOP % ACHIEVED	39%	
ACTUALS (Cum.)	7	FY21 Q2 TOTAL
POP ACTUALS	7	
NEW PROVISIONS		7
CONTINUING PROVISIONS		0
WTO PROVISION		Number of Activities per Provision During PoP
Consultation		2
Expanded AEO		1
Risk Management		4
Advance Rulings		0
Customs Valuation		1
Administrative Appeals		0
Post-Clearance Audit		2
Border agency cooperation		0
Information available - internet		1
Publication		1

Indicator 1.3h – Person hours of USG-supported training completed in trade and investment (EG 2-1) are collected through daily participant training sign-in sheets and completed agendas. Overall, good progress continued to be made towards achieving the life of project/activity target. Nearly 46 percent of the people who completed the training in trade and investment topics were women. Nearly 36 percent of the total person-hours were focused on the WTO TFA Risk Management Provision.

Table 51: Actuals for ERLP 1.3h: Person hours of USG-supported training completed in trade and investment (EG 2-1)					
LOP TARGET	4,000	ACTUALS			
% LOP TARGET ACHIEVED	55%	FY21 Q1		FY21 Q2	
		TOTAL	1,308	TOTAL	900
ACTUALS (CUM)	2,208	PERSON HOURS MALES	520	PERSON HOURS MALES	672
		PERSON HOURS FEMALES	788	PERSON HOURS FEMALES	228
POP ACTUALS	900	TOTAL INDIVIDUALS COMPLETED	69	TOTAL INDIVIDUALS COMPLETED	87
AGE OF PARTICIPANTS WHO COMPLETED THE TRAINING		15-19	0	15-19	0
		20-24	0 F; 1 M	20-24	0
		25-29	1 F; 2 M	25-29	0
		30+	41 F; 24 M	30+	7 F; 80 M
		NA	0	NA	0
TOPIC OF TRAINING		Public Budgeting for Ministry of Finance, Public/Private Dialogue for Enhancing Trade facilitation		**Trade:** Authorized Economic Operator, Post Clearance Audit, Risk Management, Risk Based Food Controls, Webinar on Risk Management, Webinar on Post Clearance Audit, Webinar on Customs Valuation, Webinar on Customs Induction Module, Advanced Phytosanitary guidelines for risk-based food control & inspection **MOF:** Oil Revenue, Non-Oil Revenues Forecasting Model	
LOCATION OF TRAINING		Coral Hotel-Aden, Yemen (4) Note: One participant attended Remotely via zoom		Coral Hotel-Aden, Yemen (11) Note: Seven participants attended Remotely via zoom	

OUTCOME 2: MACROECONOMIC FUNCTIONS OF KEY INSTITUTIONS

IMPROVED INTERMEDIATE RESULT 2.1: SME CAPACITY STRENGTHENED

Indicator 2.1a - Number full-time equivalent (FTE) jobs created with USG assistance (Archived EG 3-9) "Jobs Created." Data is collected from ERLP partner firms, using hiring lists and analyzing which jobs are attributable to the technical assistance and training provided through the program. While initial results data became available in early FY21, it is expected that the number of jobs created will be increasing in each quarter as more firms are included as partners and as technical assistance, and capacity building efforts by ERLP consultants begins to have an impact on firm growth. To date, female employees filled nearly 27 percent of the jobs created; and 50 percent of employees hired were youth. Most of the jobs were created by the health/medical sector partner SMEs.

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LOP TARGET	1,500	ACTUALS		
% LOP TARGET ACHIEVED	13%		FY21 Q1 TOTAL	FY21 Q2 TOTAL
ACTUALS (CUM.)	191	TOTALS	41	150
SEX OF JOB HOLDER		MALES	22	120
		FEMALES	19	30

Table 52: Actuals for ERLP 2.1a: Number full-time equivalent (FTE) jobs created with USG assistance (Archived EG 3-9) "Jobs Created"			
AGE OF JOB HOLDER	**15-19**	0	2 F; 4 M
	20-24	0 F; 5 M	12 F; 29 M
	25-29	0 F; 1 M	10 F; 37 M
	30+	2 F; 3 M	2 F; 44 M
	N/A*	17 F; 13 M	4 F; 6 M
SECTOR OF JOB	**AG**	0	34
	NON- AG	41	116
TYPE OF POSITION	**PERMANENT**	41	150
	SEASONAL	0	0
	OTHER	0	0

*Some jobholders are reluctant to provide their age or age range.

Indicator 2.1b - USD sales of firms receiving USG-funded assistance (EG.5-1) is collected from ERLP partner firms, using financial data collection forms that are sent out to firms throughout the lifespan of the PA. Firms in Yemen are often reluctant to share their financial data, whether it is information on profits or sales values, because they are concerned that the security of their staff, families and that they themselves would be at risk (hostage-taking, theft, etc.) if the information is shared with external stakeholders. As a result, ERLP will include monetized units sold in the sales data collected, as required.

Analysis of sales actuals compared to baseline shows an average sales increase of nearly 11 percent for the enterprises reporting sales data as a result of ERLP support. Performance in Q2 was outstanding at a 120 percent increase against the baseline for the quarter for the reporting firms. This remarkable achievement has been driven by the recovery of one of the ERLP SME partners – the Abu Sufian Trade Group – which experienced a large sales increase after suffering a setback in Q1 due to staff and management turnover. With ERLP SME consultant support, the partner was able to get back on track, and sales rebounded.

Table 53: Actuals for ERLP 2.1b: USD sales of firms receiving USG-funded assistance (EG.5-1)				
LOP TARGET	>10% over baseline	**ACTUALS**		
% ACHIEVED	125%**		**FY21 Q1 TOTAL**	**FY21 Q2 TOTAL**
ACTUALS (Cum.)	29.7M $	**TOTAL POP**	13.6M$	16.2M$
BASELINE*	26.4M $	**QUARTERLY BASELINE**	12.9M$	13.5M$
FIRMS REPORTING / QUARTER			13	12
TYPE OF ENTERPRISE		**AG MSME**	3	2
		NON-AG MSME	10	10
EXCHANGE RATE (USD:YER)			1 USD = 598 YER	1 USD = 592 YER

* Baseline values will be cumulative, as it aggregates the baseline values from the previous year's quarter for the firms reporting sales in the current quarter.

Indicator 2.1.1a Number of private sector firms that have improved management practices or technologies as a result of USG assistance. Based on an innovative data collection methodology piloted under the ERLP predecessor activity, the MEL and Livelihoods teams continue to collect and verify the application of the improved management practices and technologies based on technical consultant reporting, MEL verification visits to SMEs, collecting photographic evidence, and firm feedback on the application. While initial results data became available during this reporting period, it is expected that the number of firms that have applied the improved management practices and/or technologies will be increasing in each quarter as more firms are included as partners and as technical assistance and capacity building efforts by ERLP consultants begins to have an impact on firm growth. Evidence collected from ERLP support to SMEs and microenterprises found that nine firms were already applying four key management practices identified through initial consultations with the MSMEs to mitigate constraints to enterprise growth.

Table 54: Actuals for ERLP 2.1.1a Number of private sector firms that have improved management practices or technologies as a result of USG assistance

LOP TARGET	80	ACTUALS	
% ACHIEVED	11%		FY21 Q2 TOTAL
ACTUALS	9	TOTAL POP	9
AGRICULTURE ENTERPRISES		MSME	2
NON-AGRICULTURE ENTERPRISES		MSME	5
AGRICULTURE SUB-COMPONENT		LIVELIHOOD VC	1
		FISHERIES VC	1
TYPE OF TECHNOLOGY OR MANAGEMENT PRACTICE APPLIED BY PARTNER FIRMS		STRATEGIC MANAGEMENT	3
		QUALITY & CERTIFICATION	2
		SOFT SKILLS TRAINING	0
		PRODUCTIVITY ENHANCEMENT	2
		MARKETING/OUTREACH	2
		ICT	0
		OTHER	0

Indicator 2.1.1b - Number of firms receiving USG-funded technical assistance for improving business performance (EG 5.2-1) is collected through partnership agreements (PA) signed with each targeted firm and through partnerships with for-profit associations, microenterprises, and entrepreneurs. During the period of performance, an additional 132 agreements were approved for an expected 524 FTE jobs.

Table 55: Actuals for ERLP 2.1.1b: Number of firms receiving USG-funded technical assistance for improving business performance (EG 5.2-1)

LOP TARGET	100 (30 women-owned)	ACTUALS		
% LOP TARGET ACHIEVED	155%		FY21 Q1 TOTAL	FY21 Q2 TOTAL
ACTUALS (CUM.)	155	TOTAL POP	23	132
		WOMEN-OWNED FIRMS*	0	68**
SME SUPPORT SUB- COMPONENT		JOB CREATION	16	10
		WORKFORCE DEVELOPMENT	7	30
		FISHERIES INTERVENTION	0	92
SUSTAINABLE LIVELIHOODS SUB-COMPONENT.		FISHERIES	1	93
		OTHER AG	2	1
		NON-AGRO	20	38
LOCATION OF FIRM		ADEN	19	23
		AL MUKALAH	4	109

*Based on the business context in Yemen, some firms have mixed ownership (both male and female) and will therefore be included as women-owned firms.
**Of these, 61 are female entrepreneurs, and two firms have mixed ownership (male and female).

Indicator 2.1.2a – Number of individuals with new or better employment following completion of USG-assisted workforce development programs (Archived EG 6-1): Data is collected from workforce development partner firms and other targeted entities (e.g., schools) using their official hiring lists and then cross-walking that data to pre-employment or job-skills sign-in sheets. Only when there was a match that proved that the new employee participated in the pre-employment training was the job seeker counted for this indicator.

As of this reporting period, ERLP is making good progress towards the LOP target. Approximately 42 percent of the job seekers who found employment through ERLP were women – 13 percent of whom were trained in the Costal women Skills Development training. Nearly 58 percent of successful job seekers were youth. Over 74 percent of the job seekers have found employment in the Health Sector as a result of ERLP support.

Table 56: Actuals for ERLP 2.1.2a: Number of individuals with new or better employment following completion of USG-assisted workforce development programs (Archived EG 6-1)				
LOP TARGET	1,500	**ACTUALS**		
% LOP TARGET ACHIEVED	31%		**FY21 Q1 TOTAL**	**FY21 Q2 TOTAL**
ACTUALS (CUM.)	460	**TOTAL POP**	146	314
SEX OF JOB HOLDER		**MALES**	93	171
		FEMALES	53	143
AGE OF JOB HOLDER		**15-19**	0 F; 10 M	3 F; 2 M
		20-24	9F; 21M	30 F; 18 M
		25-29	13 F; 25M	51 F; 83 M
		30+	13 F; 20 M	52 F; 65 M
		N/A*	18 F; 17 M	7 F; 2 M
SECTOR OF JOB		**AG**	7	46
		NON- AG	139	268

*Some jobholders are reluctant to provide their age or age range.

Indicator 2.1.2c – Percent of individuals who complete USG-assisted workforce development programs (EG 6-3). This indicator focused on pre-employment training to support the recruitment needs of targeted partner firms. Data for this indicator is collected from daily sign-in sheets. During the period of performance, the ERLP team conducted a total of 22 training events on topics such as Covid-19 for both public and private hospitals in Aden; personal hygiene food preparation workers for fisheries firms in Aden; and tailoring for a factory in Al Mukalla. Of the total 513 participants who attended these workforce development training sessions, 88 percent completed the course work, out of which 40 percent were women.

LOP TARGET	70%	**ACTUALS**					
% LOP TARGET ACHIEVED	123%	**FY20 Q4**		**FY21 Q1**		**FY21 Q2**	
		TOTAL	73%	**TOTAL**	97%	**TOTAL**	88%
AVERAGE %	86%	**% MALES**	69%	**% MALES**	96%	**% MALES**	83%
		% FEMALES	78%	**% FEMALES**	100%	**% FEMALES**	94%
ACTUALS (POP)	88%	**TOTAL COMPLETED**	78	**TOTAL COMPLETED**	65	**TOTAL COMPLETED**	447
		TOTAL ATTENDED	107	**TOTAL ATTENDED**	67	**TOTAL ATTENDED**	513
SEX OF PARTICIPANTS WHO COMPLETED THE TRAINING		**NUMBER MALES**	43	**NUMBER MALES**	48	**NUMBER MALES**	270
		NUMBER FEMALES	35	**NUMBER FEMALES**	17	**NUMBER FEMALES**	177

Table 57: Actuals for ERLP 2.1.2c: Percent of individuals who complete USG-assisted workforce development programs (EG 6-14)						
AGE OF PARTICIPANTS WHO COMPLETED THE TRAINING	15-19	0	15-19	0 F; 7 M	15-19	0 F; 1 M
	20-24	6 F; 9 M	20-24	6 F; 12 M	20-24	15 F; 18 M
	25-29	10 F; 7 M	25-29	6 F; 20 M	25-29	49 F; 96 M
	30+	11 F; 15 M	30+	5 F; 9 M	30+	109 F; 136 M
	NA	8 F; 12 M	NA	0	NA	4 F; 19 M

Indicator: 2.1.3.a: Total number of clients benefiting from financial services provided through USG-assisted financial intermediaries, including non-financial institutions or actors (EG.4.2-1). Data for this key Access to Finance indicator is collected directly from partner financial institutions. As of this period of performance, ERLP has met the LOP due to extending the targeted beneficiaries from a focus on the commercial banks to those financial institutions that focus on small and medium-sized enterprises as key clients.

During the last two-quarters, ERLP has provided partner financial institutions a credit application training program to manage risks better and establish internal SME lending units. As a result, the level of loan disbursement to small and medium enterprises has increased dramatically. Analysis of those banks that report client data by sex of recipient finds that approximately 29 percent of the loan recipients are female.

Table 58: Actuals for ERLP: 2.1.3.a: Total number of clients benefiting from financial services provided through USG-assisted financial intermediaries, including non-financial institutions or actors (EG.4.2-1)					
LOP TARGET	2,500	ACTUALS			
% LOP TARGET ACHIEVED	97%		FY20 Q4 TOTAL	FY21 Q1 TOTAL	FY21 Q2 TOTAL
ACTUALS (CUM.)	2,424	TOTAL POP	342	1,055	1,027
CLIENTS TOTALS BY FINANCIAL INSTITUTION		TADHAMON BANK	178	477	510
		AL AMAL MICROFINANCE BANK (AMB)	164	578	99
		AL ITTIHAD MICROFINANCE BANK	0	0	384
		YEMEN COMMERCIAL BANK (YKB)	0	0	34
CLIENT TOTALS BY SECTOR		OTHER AGRO CLIENTS	378 (Cum)		
		AGRO FISHERIES CLIENTS	16 (Cum)		
		NON AGRO CLIENTS	2,030 (Cum)		
CLIENT TOTALS BY GENDER		MALE	1,679 (Cum)		
		FEMALE	709 (Cum)		
		NA	36 (Cum)		

Indicator: 2.1.3.b USD value in loans provided to SMEs. Data for this Access to Finance indicator is collected directly from partner financial institutions. Approximately 83 percent of the loans provided to SMEs were received by non-agricultural firms. Approximately 17 percent of the loan values were provided to female clients. The total value of loans provided to SMEs lags behind the number of clients (indicator 2.1.3.a above) because of the shift by partner banks towards loaning to smaller firms. Nevertheless, it is expected that the target will be reached by the end of the activity.

<table>
<tr><th colspan="6">Table 59: Actuals for ERLP 2.1.3.b: USD value in loans provided to SMEs</th></tr>
<tr><td>LOP TARGET</td><td>$15,000,000</td><td colspan="4">ACTUALS</td></tr>
<tr><td>% LOP TARGET ACHIEVED</td><td>26%</td><td></td><td>FY20 Q4 TOTAL</td><td>FY21 Q1 TOTAL</td><td>FY21 Q2 TOTAL</td></tr>
<tr><td>ACTUALS (CUM.)</td><td>$3,914,195</td><td>TOTAL POP</td><td>$367,928</td><td>$1,402,584</td><td>$2,143,682</td></tr>
<tr><td rowspan="4">LOAN TOTALS BY FINANCIAL INSTITUTION</td><td colspan="2">TADHAMON BANK</td><td>$322,764</td><td>$1,231,945</td><td>$1,285,400</td></tr>
<tr><td colspan="2">AL AMAL MICROFINANCE BANK (AMB)</td><td>$45,164</td><td>$170,639</td><td>$154,765</td></tr>
<tr><td colspan="2">AL ITTIHAD MICROFINANCE BANK</td><td>0</td><td>0</td><td>$447,069</td></tr>
<tr><td colspan="2">YEMEN COMMERCIAL BANK (YKB)</td><td>0</td><td>0</td><td>$256,449</td></tr>
<tr><td rowspan="3">LOAN TOTALS BY SECTOR</td><td colspan="2">OTHER AGRO LOANS</td><td colspan="3">$568,628 (Cum)</td></tr>
<tr><td colspan="2">AGRO FISHERIES LOANS</td><td colspan="3">25,051 (Cum)</td></tr>
<tr><td colspan="2">NON AGRO LOANS</td><td colspan="3">$3,230.516 (Cum)</td></tr>
<tr><td rowspan="3">LOAN TOTALS BY GENDER OF RECIPIENTS</td><td colspan="2">MALE</td><td colspan="3">$2,995,317 (Cum)</td></tr>
<tr><td colspan="2">FEMALE</td><td colspan="3">$659,779 (Cum)</td></tr>
<tr><td colspan="2">NA*</td><td colspan="3">$259,099 (Cum)</td></tr>
<tr><td colspan="3">EXCHANGE RATE (USD:YER)</td><td>1 USD = 597 YER</td><td>1 USD = 598 YER</td><td>1 USD = 592 YER</td></tr>
</table>

*Some partner financial institutions do not collect data on the sex of the firm/client.
** There is a slight lag in the verification of the total loan amount for YCB for FY21 Q2; By FY21 Q3, the MEL and A2F data for YCB will be aligned.

INTERMEDIATE RESULT 2.2: SUSTAINABLE LIVELIHOODS SUPPORTED

Indicator 2.2a - Number of vulnerable households benefiting directly from USG assistance is collected from daily participant sign-in sheets for individuals participating in Sustainable Livelihoods programs (including market linkages and fisheries), directly from IFI partners for those who receive loans supported by the Access to Finance sub-component, and from employment records and sign-in sheets documenting participation in the SME and WFD activities. The total number of beneficiaries will not be used as data for this indicator, as many participants belong in the same household – particularly for the Livelihoods sub-components. As a result, household ownership by the ERLP direct beneficiaries will be used as the proxy for the number of households benefiting.

The ERLP household indicator data collection efforts were launched mid-January with the ERLP Livelihood-Fisheries-Market Linkage component by confirming household ownership during training/workshops events. Livelihood beneficiaries trained prior to Q2 have been identified and will undergo household ownership confirmation in future MEL data collection efforts.

Household data collection for both the SME and WFD sub-components was also initiated during the quarter. Similar to the Livelihoods beneficiaries, the SME and WFD beneficiaries will also have their household status confirmed and reported in the next few months. Household data for the ERLP Access to Finance subcomponent loan beneficiaries is ongoing since every applicant is required to be a household owner to apply for a loan. To date, women-headed households comprise 29% of the ERLP direct beneficiaries.

Table 60: Actuals for ERLP 2.2a: Number of vulnerable households benefiting directly from USG assistance			
LOP TARGET	10,000 (3,000 Women HH)	**ACTUALS**	
% LOP TARGET ACHIEVED	30%		**FY21 Q2 TOTAL**
ACTUALS (CUM.)	3,013	**TOTAL POP**	3,013
		WOMEN-HEADED HOUSEHOLDS	874
A2F SUB-COMPONENT		**LOAN RECIPIENTS**	2,388
SME SUPPORT SUB-COMPONENT		**JOB CREATION**	59
		WORKFORCE DEVELOPMENT	56
SUSTAINABLE LIVELIHOODS SUB-COMPONENT.		**FISHERIES**	29
		MARKET LINKAGES	23
		LIVELIHOODS	458

Indicator 2.2b - Number of farmers and others who have applied improved technologies or management practices with USG assistance. Based on an innovative data collection methodology piloted under the ERLP predecessor activity, the MEL and Livelihoods teams continue to collect and verify the application of the improved management practices and technologies based on a sampling of beneficiary farmers and collecting photographic evidence and farmer feedback on the application. This data collection process identifies farmers who are applying at least one new management practice or technology and which technologies and management practices prove to be most relevant to the farmers.

Data collection for this indicator was initiated during the quarter. More actuals are expected to be collected and reported in future quarters as the farmers and others finish ERLP training and can begin to apply what they've learned in practice. Data collected during this period of performance demonstrates that of the nearly 70 farmers and others who have applied the improved technologies and management practices, 30 percent were in the Livestock and Tomato value chains, while 20 percent of the farmers were in the coffee value chain and 16 percent of the honey value chain. Good progress is being made towards the LOP target.

LOP TARGET	1,800	**ACTUALS**	
LOP % ACHIEVED	4%		
ACTUALS (CUM.)	64		**FY21 Q2 TOTAL**
SEX OF FARMERS AND OTHERS		**TOTAL POP**	64
		MALE	50
		FEMALE	14
NUMBER OF MANAGEMENT PRACTICES / TECHNOLOGIES APPLIED		**CROP GENETICS**	4
		CULTURAL PRACTICES	17
		LIVESTOCK MANAGEMENT	19
		PEST AND DISEASE MANAGEMENT	1
		SOIL-RELATED FERTILITY AND CONSERVATION	13
		IRRIGATION	7
		AGRICULTURE WATER MANAGEMENT - NON-IRRIGATION-BASED	2
		CLIMATE MITIGATION	0
		CLIMATE ADAPTATION/CLIMATE RISK MANAGEMENT	0

Table 61: Actuals for ERLP 2.2.b: Number of farmers and others who have applied improved technologies or management practices with USG assistance (Archived EG 3.2-17)		
	MARKETING AND DISTRIBUTION	10
	POST-HARVEST HANDLING & STORAGE	12
	VALUE-ADDED PROCESSING	0

Indicator 2.2c - Value of annual sales of producers and firms receiving USG assistance (EG.3.2-26) is collected from ERLP livelihoods partners, using financial data collection forms that are sent out to firms throughout the lifespan of the program. Producers and firms in Yemen are reluctant to share their financial data, whether it is information on profits or sales values, because they are concerned that the security of their staff, families, and themselves would be at risk (hostage-taking, theft, etc.) if the information is shared with external stakeholders. As a result, ERLP includes monetized units sold in the sales data. In FY21 Q1, the sales data was from microenterprises and firms that did not exist in FY20. During the period of performance, ERLP collected sales data from 41 SMEs, micro-enterprises, and entrepreneurs – all in Al Mukalla – for an increase of over 49% compared to the same quarter in 2020.

Table 62: Actuals for ERLP 2.2c: USD Value of annual sales of producers and firms receiving USG assistance (EG.3.2-26)				
LOP TARGET	>20% over baseline	**ACTUALS**		
% ACHIEVED	250%		**FY21 Q1 TOTAL**	**FY21 Q2 TOTAL**
ACTUALS (Cum.)	426.3K $	**TOTAL POP**	$1.4K	$425K
BASELINE*	284K $	**QUARTERLY BASELINE**	$0	$284K
FIRMS REPORTING / QUARTER			6	41
TYPE OF ENTERPRISE		**AG MSME**	6	41
		NON-AG MSME	0	0
EXCHANGE RATE (USD:YER)			1 USD = 598 YER	1 USD = 592 YER

* Baseline values will be cumulative, as it aggregates the baseline values from the previous year's quarter for the firms reporting sales in the current quarter.

Indicator 2.2d - Number of individuals who have received USG-supported short-term agricultural sector productivity or food security training (EG 3.2-1): Data for this indicator is collected through daily sign-in sheets. Around 33 percent of participants in the livelihoods training during the period of performance were female farmers. The greatest female participation occurred in the Fisheries, Tomato, and Livestock value chains (100 percent of the Fisheries, 67 percent of the Tomato, and 47 percent of the Livestock training participants). Youth participation in the ERLP livelihoods training across all of the relevant agricultural value chains is 29 percent.

LOP TARGET	7,500	**ACTUALS**					
LOP % ACHIEVED	34%						
YEAR 1 TARGET	3,600	**FY20 Q4 TOTAL**		**FY21 Q1 TOTAL**		**FY21 Q2 TOTAL**	
YEAR 1 % ACHIEVED	72%						
ACTUALS (CUM.)	2,579	**TOTAL POP**	487	**TOTAL POP**	1,311	**TOTAL POP**	781
SEX OF PARTICIPANTS		**MALE**	245	**MALE**	998	**MALE**	479
		FEMALE	242	**FEMALE**	313	**FEMALE**	302
VALUE CHAIN (EVENTS)		Tomato (5); Coffee (5); Honey (5); Fish		Tomato (4); Coffee (12); Honey (10); Livestock (16); Fish (6); Onion		Tomato (3); Honey (5); Livestock (11); Fish (5);	

Table 63: Actuals for ERLP 2.2.d: Number of individuals who have received USG-supported short-term agricultural sector productivity or food security training (Archived EG 3.2-1)			
			Onion (4)
LOCATION OF TRAINING	Khanfir-Abyan (5); Saum-Hadramout (5); Mawaset-Taiz (5); Al Sheher-Hadramout	Khanfir-Abyan (4); Hraydah-Hadhramout (5); Radfan – Lahij (5); Aden Gulf Company-Aden (2); Buriqah-Aden; Coral Hotel-Aden; Mukallah City-Al Mukallah (2); Alrayda Wa Qusayer-Hadhramout (6); DesAlsharqyia-Hadhramout (5); Tuban - Lahij (5); Al-Madarribah – Lahj; Al-Mawasit – Taiz (8); Al Misrakh – Taiz (3); Al Ma'afer-Taiz	Khanfir-Abyan; Tuban-Lahj (2); Shibam-Hadramout (5); Khormeskar-Aden; Seyhout-Mahra; Des-Alsharqiya-Hadramout; Al Mukallah-Hadramout; Kaizen-Centre; Alsheher-Hadramout (5); Alwadea-Abyan (4); Sabr-Tuban-Lahj (2); Al-Madaribah – Lahj (4)

CROSS-CUTTING PERFORMANCE

Indicator C1 – Percentage of female participants in US-assisted programs designed to increase access to productive economic resources (GNDR-2). This indicator aggregates participant data across all sub-components. During the period of performance, both the work with the MSMEs and the CBY/MOF officials demonstrated a higher participation of women. To date, the percentage of female participants is exceeding the LOP target.

Table 64: Actuals for ERLP C1: Percentage of female participants in US-assisted programs designed to increase access to productive economic resources (GNDR-2)							
LOP TARGET	30%	ACTUALS					
% LOP TARGET ACHIEVED	123%	FY20 Q4 TOTALS		FY21 Q1 TOTALS		FY21 Q2 TOTALS	
AVERAGE %	37%	TOTAL %	48%	TOTAL %	24%	TOTAL %	38%
COMPONENTS / SUB-COMPONENTS		CBY/MOF	N/A	CBY/MOF	61%	CBY/MOF	47%
		AGRICULTURE	50%	AGRICULTURE	24%	AGRICULTURE	39%
		ACCESS TO FINANCE LOANS	N/A	ACCESS TO FINANCE LOANS	22%	ACCESS TO FINANCE LOANS	39%
		TRADE	N/A	TRADE	12%	TRADE	8%
		MSME OWNERSHIP	N/A	MSME OWNERSHIP	0%	MSME OWNERSHIP	55%
		JOBS CREATED/ IMPROVED	N/A	JOBS CREATED/ IMPROVED	40%	JOBS CREATED/ IMPROVED	22%
		WORKFORCE DEVELOPMENT	42%	WORKFORCE DEVELOPMENT	25%	WORKFORCE DEVELOPMENT	40%

USAID THIRD PARTY MONITORING OF ERLP

During the period of performance, USAID/YCLE completed four third-party monitoring remote visits to ERLP activities and shared five reports with ERLP.

Table 65: January – March 2021 Third-Party Monitoring				
ERLP Component	**ERLP Event**	**TPM Visit Date**	**Date Shared With ERLP**	**Location of Monitoring**
WFD	Youth Capacity Building Program and Mini Job Fair	1 Nov-3 Dec 2020	Jan 6, 2021	Virtual/Remote
SME- Access to finance #	ERLP CAP Model training for Al Amal Bank	Jan 27-28, 2021	Feb 14, 2021	Virtual/Remote
SME- Access to finance #	ERLP CAP Model training for Yemen Commercial Bank (YCB) Bank	Feb 14-16, 2021	March 17, 2021	Virtual/Remote
Fisheries	ERLP Costal Women Skills Development Training	Jan 23- Feb 4, 2021	March 2, 2021	Hadramawt Governorate/Al Mukalla district
Trade	Risk Management Training	Jan 26-27, 2021	Feb 15, 2021	Khur Maksar District, Aden Governorate

ERLP continued active collaboration with YCLE during the period of performance, including activity planning and logistics, "Means of Verification" data collection tool reviews, MEL and technical teams' meetings, TPM and remote visit preparation, report submission, and debriefs. Debriefs have been attended by USAID/Frankfurt and other USAID Program Office staff and by USAID/Yemen and the YCLE and ERLP staff.

CONCLUSION

During the period of performance, a total of 16 indicators have been reported to USAID (or 64 percent of all proposed ERLP indicators). Overall, ERLP has made substantial progress during the performance period and is on course to exceed some indicators.

PERFORMANCE INDICATOR TRACKING TABLE

The ERLP MEL System maintains a performance indicator tracking table (PITT) to support regular updating of the indicator values and for analysis and reporting. The ERLP PITT includes baseline values and dates, targets, and actual indicator values for all performance indicators. To summarize LOP performance, the ERLP MEL team has added a short note explaining the performance data trends.

Table 66: Q2 Performance Indicator Tracking Table

ERLP Performance Indicator		Baseline		FY2020	FY2021				Cum. Total	Progress to Target	LOP Target
		Date	Value	Q4 Actual	Q1 Actual	Q2 Actual	Q3 Actual	Q4 Actual			
ERLP Activity Objective: Macro & Micro Economic Conditions Improved in Yemen											
Outcome 1: Macroeconomic Functions of Key Institutions Improved											
1.a	# of laws, policies, or regulations formally proposed, adopted, or implemented as supported by USG assistance	July-20	0	N/A	140 points	210 points			350 points	70%	5 (500 points)
Notes: ERLP is making good progress towards the LOP target.											

ERLP Performance Indicator		Baseline Date	Baseline Value	FY2020 Q4 Actual	FY2021 Q1 Actual	FY2021 Q2 Actual	FY2021 Q3 Actual	FY2021 Q4 Actual	Cum. Total	Progress to Target	LOP Target
Intermediate Result 1.3: Trade Facilitation Policy Development and Implementation Strengthened											
1.3f	WTO Trade Facilitation Agreement provisions, recognized as substantive improvements and specified in conjunction with USAID, adopted (linked to EG 2.1-1)	July-20	0	N/A	0	7			7	39%	18
Notes: ERLP is making good progress towards the LOP target.											
1.3 h	Person hours of USG-supported training completed in trade and investment (EG 2-1)	July-20	0	N/A N/A	1,308 788 W	900 228 W			2,208 1,016 W	55%	4,000
Notes: ERLP is making good progress towards the LOP target.											
Outcome 2: Microeconomic Conditions Improved											
Intermediate Result 2.1: SME Capacity Strengthened											
2.1a	Number full-time equivalent (FTE) jobs created with USG assistance (Archived EG 3-9) "Jobs Created"	July-20	0	0 0	41 19 W	150 30 W			191 49 W	13%	1,500
Notes: There is typically a 2–4-month lag in seeing the impact on job creation after the consultation ends; nonetheless, verified data demonstrates that ERLP is making early progress towards achievement of the LOP target.											
2.1b	USD [value of] sales of firms receiving USG-funded assistance (EG.5-1)	See note *	$26.4M	N/A	$13.6 M	$16.2 M			$29.7 M	125%	>10% over baseline
Notes: ERLP continues to exceed the LOP target for the second quarter in a row.											
2.1.1a	Number of private sector firms that have improved management practices or technologies as a result of USG assistance (EG.5.2-2)	July-20	0	N/A	N/A	7			7	9%	80
Notes: ERLP is making steady progress towards the LOP target.											
2.1.1b	# of firms receiving USG-	July-20	0	N/A	23	132			155	155%	100

ERLP Performance Indicator		Baseline Date	Baseline Value	FY2020 Q4 Actual	FY2021 Q1 Actual	FY2021 Q2 Actual	FY2021 Q3 Actual	FY2021 Q4 Actual	Cum. Total	Progress to Target	LOP Target
	funded technical assistance for improving business performance (EG 5.2-1)			N/A	0 W	68 W			68 W	227%	30 W
Notes: ERLP has exceeded the LOP target as a result of adding microenterprises and entrepreneurs to the targeted enterprise beneficiaries.											
2.1.2a	# of individuals with new or better employment following completion of USG-assisted workforce development programs (Archived EG.6.1)	July-20	0	0	146	314			460	27%	1,500
				0 W	53 W	143 W			196 W	33% W	600 W
Notes: ERLP is making steady progress towards the LOP target.											
2.1.2c	% of individuals who complete USG-assisted workforce development programs (EG 6-14)	July-20	0	73%	97%	88%			86%	123%	70%
				78% W	100% W	94% W			91% W		
Notes: ERLP continues to exceed the LOP target for the second quarter in a row.											
2.1.3a	# of clients benefiting from financial services provided through USG-assisted financial intermediaries, including non-financial institutions or actors (EG.4.2-1)	July-20	0	342	1,055	1,027			2,424	97%	2,500
				0 W	312 W	397 W			709 W	83% W	850 W
Notes: ERLP has met the overall LOP target and is making good progress towards achieving the target for women clients.											
2.1.3b	USD value in loans provided to SMEs	July-20	0	N/A	$1.8M	$2.1M			$3.9M	26%	$15M
					$274k W	$386k W			$660k W	13% W	$5M W
Notes: ERLP is making steady progress towards the achievement of the LOP target, while focusing partner banks on microenterprises, small firms, and other nontraditional loan recipients.											

ERLP Performance Indicator		Baseline		FY2020	FY2021				Cum. Total	Progress to Target	LOP Target
		Date	Value	Q4 Actual	Q1 Actual	Q2 Actual	Q3 Actual	Q4 Actual			
Intermediate Result 2.2: Sustainable Livelihoods Supported											
2.2a	# of vulnerable households benefiting directly from USG assistance	July-20	0	N/A	N/A	3,013			3,013	30%	10,000
						874 W			874 W	29% W	3,000 W
Notes: Data collection for this indicator was initiated in FY21 Q2; data for household beneficiaries for FY21 Q1 and for FY20 Q4 is being verified and will be reported in the next quarterly reports. Overall, ERLP is making good progress towards the LOP target.											
2.2 b	Number of farmers and others who have applied improved technologies or management practices with USG assistance	July-20	0	N/A	N/A	64			64	4%	1800
						14 W			14 W	2%	600 W
Notes: Data collection was initiated during the quarter, with a limited set of farmers/others putting into practice the skills and knowledge they learned through the training provided by the Livelihoods sub-component so far. It is expected that adaptation/dissemination rates will accelerate significantly during Q-3/4; as post-training outreach and monitoring activities further intensify and the impact of demonstration pilot activities kicks-in more fully as well.											
2.2c	Value of annual sales of producers and firms receiving USG assistance (EG.3.2-26)	FY20	286.2 k$	N/A	1.2K $	425K $			426K S	250%	>20% over baseline
Notes: ERLP is making steady progress towards both the LOP target, with early data exceeding the target for those firms reporting to ERLP.											
2.2 d	# of individuals who have received USG-supported short-term agricultural sector productivity or food security training (EG 3.2-1)	July-20	0	487	1,311	781			2,579	34%	7,500
				242 W	314 W	302 W			857 W		
Notes: ERLP is making steady progress towards the LOP target.											
C1	% of female participants in the U.S. assisted programs designed to increase access to productive economic resources (GNDR-2)	July-20	0	48%	24%	38%			37%	123%	30%
Notes: ERLP continues to exceed the LOP target for this indicator.											

*Baseline is rolling, as new partner firms are added; for quarterly reporting, the quarterly baseline will be for the calendar year prior to ERLP assistance so that the quarterly sales can be compared accurately.

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ECONOMIC RECOVERY & LIVELIHOODS PROGRAM (ERLP) - YEMEN

ANNEX 1

FINAL REPORT ON THE IMPLEMENTATION OF THE ANNUAL CY2020 MONETARY PLAN

March 2021

Prepared for the United States Agency for International Development, USAID Order # 72027920M00001

USAID/Yemen - Economic Recovery & Livelihoods Program (ERLP)

The Pragma Corporation, 116 East Broad Street, Falls Church, VA 22046

INTRODUCTION

The monetary programming framework designed for CBY in CY 2020 analyzes and establishes appropriate targets for key indicators to assist the central bank in implementing a sound monetary management policy framework to achieve its macroeconomic stabilization goals.

As a prerequisite for building this framework, ERLP experts first estimated money demand using two approaches. The first approach relies on the equation of exchange/quantity theory of money, whereas the second is based on regression techniques. The estimated function is then calibrated consistently with appropriate scenarios for economic growth, fiscal deficit, and external sector accounts.

A. ASSUMPTIONS UNDERLYING THE 2020 ANNUAL MONETARY PLAN

The initial draft of the monetary program designed was based on the following assumptions.

H1- Real GDP growth by 2.5 percent in 2020;

H2- Fiscal deficit in the same magnitude as 2019 (approx. 850 billion YER);

H3- Nominal depreciation of the Rial by approximately the same depreciation recorded in 2019 (12.4 percent). This requires the mobilization of US$ 1one billion in 2020 (of which US$550 million may be provided through the full utilization of the outstanding balance of the Kingdom of Saudi Arabia (KSA) deposit in 2020);

H4- Status quo in terms of interest rate policy.

Based on the above-mentioned assumptions and the money demand function estimated for Yemen, the initial monetary program for 2020 projected base and broad money to grow by 14.7 and 11.6 percent, respectively, consistent with an inflation target of 15 percent. Within this framework, currency in circulation is projected to grow by 16.2 percent.

Considering the dual impact of the decline in oil prices and the COVID-19 outbreak on the Yemeni economy, the initial program was revised in April 2020. The new assumptions underlying the revised monetary program are as follows.

H1- Contraction of the real GDP by 6 percent in 2020;

H2- The fiscal deficit is assumed to increase by 11 percent (956.5 billion YER against 858.2 billion YER in 2019), consistent with the baseline scenario for the revenue and expenditures estimation. In the absence of alternative sources of financing, this deficit is assumed to be entirely financed by CBY through monetary emission-based financing.

H3- Non-replenishment of the KSA deposit (SAD) in 2020, which is expected to induce a depreciation of the rial by approximately 45 percent (equivalent to almost four times the depreciation recorded in 2019) following the loss of around US$500 million from the KSA deposit as a source of external financing in CY 2020. The SAD remaining balance of US$549 million assumed to have been exhausted over the CY 2020 timeframe;

H4- Status quo in terms of interest rate policy.

Consistent with the assumptions outlined above and an inflation target of 25 percent, base and broad money were projected to grow by 20.6 and 22.2 percent, respectively, in CY 2020. The table below presents a recap of the quantitative targets of the CBY annual monetary plan for CY 2020.

	Initial projection	Updated projection
Real GDP, growth rate in %	2.5	-6
Inflation rate, CPI y-o-y change in %	15	25
Broad money target (M2), growth rate in %	11.6	22.2
Base money target, growth rate in %	14.7	20.6
Currency issued, growth rate in %	16.2	25.5

The deviation of base money growth from the reference value (over/undershooting) and consequently missing the broad money targeted growth rate would signal risks for price stability. This would, in turn, provide a trigger for corrective actions, such as the CBY taking steps to ease or tighten the money supply to meet targeted levels. Therefore, assessments and needed adjustments to the program were to be regularly performed on a quarterly basis, taking into account major economic developments.

B. FINAL ASSESSMENT OF 2020 ANNUAL MONETARY PLAN IMPLEMENTATION

RESERVE MONEY

The assessment of the monetary program indicates that the CBY effectively controlled the growth of base money (the sum of currency issued and bank reserves held with the CBY) in CY 2020, limiting its growth to 13.3 percent, well below the target of 20.6 percent. Currency issued rose by 15.1 percent and bank reserves by 4.4 percent

This growth is mainly attributable to the net effect of the increase in credit to the government in the form of direct financing of the budget deficit, together with the decrease of foreign assets associated with the disbursement of the remaining balance of the KSA deposit.

Net credit to the government increased by 18.3 percent (against a target of 22.8 percent), and foreign assets declined by 38.3 percent (against a target of 45.7 percent), largely due to the drawdown of the KSA deposit.

BROAD MONEY

To carry out the assessment from a broad money perspective, ERLP used the 2019 money multiplier and the level of base money at the end of December 2020 to forecast broad money (M2) at the end of December 2020.

$$M2_{(2020)} = \text{Base money}_{(2020)} * \text{Money multiplier}$$

$$M2_{(2020)} = 3948.2 * 1.74 = 6869.8 \text{ billion rial}$$

Broad money is estimated to have grown by 15.0 percent in CY 2020, below the target of 22.2 percent considered in the annual monetary plan. At the same time, realizing the medium-term inflation target of 15 percent will likely require the mobilization of external resources and expanding access to alternative non-inflationary sources of financing by the CBY.

C. NEXT STEPS

Although adherence to the program was maintained during the previous year, ERLP will closely monitor the path of the money supply during the current year in accordance with CY 2021monetary plan targets. ERLP will advocate maintaining this pace to prevent any acceleration of currency emission during the current year to help stabilize exchange rates and prices.

APPENDIX I: CBY ANALYTICAL BALANCE SHEET KEY ITEMS (IN BILLION YER)

	Actual Values		Annual Target
	2019	2020	2020
Base Money Aggregates/Counterparts in Billion of Rials			
Net Foreign Assets	**-602.5**	**-907.5**	**-1022.3**
Foreign Assets	628.4	387.8	341.2
Foreign Liabilities	-1230	-1295.3	-1363.5
Net Domestic Credit	**4087.2**	**4855.7**	**5223.9**
Net Claims on the Government	4201.8	4969.2	5158.3
Claims	4532.3	5398.9	5488.8
Deposits	-330.6	-429.7	-330.6
Net Claims on the Other Economic Sectors	202.3	190.5	202.3
Claims on Banks	0	0	0
Other Items Net	-316.9	-304	-136.7
Base Money	**3484.7**	**3948.2**	**4201.6**
Currency Issued	2890.5	3327.5	3627.3
Bank Reserves	594.2	620.6	574.3
Base Money Aggregates/Counterparts Change in %			
Growth of Base Money/Aggregates in Percent			
Net Foreign Assets	**519.3**	**50.6**	**69.7**
Foreign Assets	-44.6	-38.3	-45.7
Foreign Liabilities	0	5.2	10.8
Net Domestic Credit	**26.8**	**18.8**	**27.8**
Net Claims on the Government	19.6	18.3	22.8
Claims	20.7	19.1	21.1
Deposits	35.5	30	0
Net Claims on the Other Economic Sectors	39.1	-5.8	0
Claims on Banks	-	-	-
Other Items Net	-27.1	-4.1	-56.9
Base Money	**11.5**	**13.3**	**20.6**
Currency Issued	12.4	15.1	25.5
Bank Reserves	7.2	4.4	-3.4

Source: CBY and author's calculation

ECONOMIC RECOVERY & LIVELIHOODS PROGRAM (ERLP) - YEMEN

ANNEX 2

WORK PLAN FOR DEVELOPING REGULATORY FRAMEWORK AND GUIDELINES FOR ADOPTION OF INDIRECT INSTRUMENTS OF MONETARY CONTROL BY CBY

March 2021

Prepared for the United States Agency for International Development, USAID Order # 72027920M00001

USAID/Yemen - Economic Recovery & Livelihoods Program (ERLP)

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INTRODUCTION

The primary objective of the Central Bank of Yemen (CBY) is to maintain price stability and controlling inflation. To achieve this objective, a robust framework for monetary targeting was set up at CBY with technical support provided by USAID, starting under the MEG/YESS project and continuing under the Economic Resilience and Livelihoods Program (ERLP) in September 2020.

MONETARY POLICY FRAMEWORK

A sound programming framework starts with a forecast for GDP, an inflation objective, and estimates of money velocity and the money multiplier. It then forecasts the volume of broad and base money needed to achieve the inflation objective. Additional information about government finance and the balance of payments is used to make quarterly forecasts, which become policy targets.

The relationship between inflation and monetary aggregates is especially significant in Yemen. Given the relative stability of money demand, monetary policy formulation in Yemen can best be conducted by applying a monetary aggregate targeting framework. Within this framework, broad money is used as an intermediate target. Base money is selected as the operational target, which the CB influences through monetary policy instrumentalities. While not a monetary policy-related objective in and of itself, more flexible management of the exchange rate regime will help smoothen money demand and facilitate effective implementation of stable monetary management policies.

Since the design of the first annual monetary plan in 2020, quantitative targets for broad money and reserve money were specified and monitored closely to help keep inflation in check.

INDIRECT INSTRUMENT OF MONETARY CONTROL

The CBY lacks a conventional framework for implementing monetary policy, and it has very limited operational capacity at present. Because of persistent weaknesses in government cash flow management, the Central Bank faces significant challenges in accurately forecasting liquidity. This, in turn, makes it more difficult to manage liquidity conditions and conduct appropriate open-market operations (OMOs). The situation is compounded by the absence of standing lending and deposit facilities at the Central Bank; and the lack of an effective reserve requirement system with an adequate reserve maintenance period. Moreover, the CBY lacks a policy rate that could serve to signal its monetary policy stance and influence commercial bank pricing of loans.

To achieve its primary objective of price stability, the CBY should establish a combination of effective monetary policy instruments over time. This will entail the gradual design of a comprehensive toolkit that comprises open market operations and standing facilities and a basic reserve requirement system. Consistent with this overarching objective, the following actionable recommendations have been presented to the CBY during Q2:

OPEN-MARKET OPERATIONS

There is a significant need to introduce OMOs through well-designed conventional and Shariah-compliant monetary policy tools to help absorb or inject liquidity into the banking system. OMOs should include the purchase and sale of securities, as well as interventions in the exchange market. In this regard, the CBY intervention process in FX markets should be reformed by putting in place a fully-fledged auction system to enhance transparency and credibility and better reflect market forces. This, in turn, will require a software network such as Reuters or Bloomberg that links all participants under the control of the CBY. This will be done in close coordination with FX management advisory specialists during the next quarter.

Guidelines related to the introduction of OMOs will be developed during the third and fourth quarters of 2021. This will include outlining detailed procedures and operations, specifying criteria for counterparty eligibility, and designing an appropriate collateral framework. Eligible counterparties will be required to comply with these guidelines.

STANDING FACILITIES

Putting standing facilities in place is essential for Yemen. In addition to allowing eligible counterparts to access Central Bank money through an overnight lending facility (i.e., discount window) and investing their liquidity surplus, standing facilities would support the eventual emergence of an interbank market in Yemen. The related regulatory framework for this important liquidity management mechanism will be developed over the next two quarters as well.

RESERVE REQUIREMENT SYSTEM

In the absence of widespread application of conventional policy instruments such as OMOs and discount windows, reactivation of the CBY's legal reserve requirements is key to the efficient conduct of monetary policy. An increase in the reserve requirement can help restrict bank lending and control the growth of monetary aggregates, thus easing inflationary pressures in the economy. Currently, no interest is paid on banks' required reserves held at the central bank. Different reserve ratios are applied to local and foreign currency deposits.

Targeted amendments to the existing regulatory framework would allow the CBY to adopt a more flexible and effective reserve requirement system; based on averaging reserve maintenance requirements over a longer period of time. This, in turn, would encourage the development of liquidity exchange between banks in the interbank market. These adjustments to the regulatory framework will be developed and proposed to the CBY during the third and fourth quarters of 2021. More broadly, implementing these measures will require a firm commitment by XBY to measure and enforce basic reserve requirements, which the ERLP team will continue to emphasize to CBY technical officials and management. Needed/recommended actions and their appropriate sequencing are illustrated in the following action plan:

Objectives	Actions	Timeframes
Establish the regulatory framework for using OMOs	Develop the guidelines related to the introduction of OMOs. This will entail specifying relevant detailed procedures and operations, criteria for counterparty eligibility, and design of the collateral framework. Eligible counterparties will be required to comply with these guidelines.	Q3-Q4
Drafting the guidelines related to the standing facilities	Establish standing facilities and the related regulatory framework.	Q3-Q4
Revising the reserve requirement system	Develop and deliver to the CBY a new regulatory framework to adopt a more flexible and effective reserve requirement system based on averaging maintenance over a longer period to encourage the development of liquidity exchange activities between banks in the interbank market	Q3-Q4

CHALLENGES/ISSUES

The primary objective of the regulatory framework for monetary policy instruments to be developed is to enable the CBY to conduct basic open market operations, offer standing facilities, and require credit institutions to hold minimum reserves on accounts in line with the best practice central banking standards. From an operational perspective, various challenges are facing the conduct of monetary policy. The lack of short-term securities is considered a key challenge that may undermine the effectiveness of the monetary policy.

Furthermore, the shallow capital and financial markets have negatively affected liquidity management activities within the banking and the economy at large. In this regard, the development of adequate toolkits for the money market and central bank credit facilities is urgently needed to dampen inflationary pressures further and improve monetary policy and commercial bank liquidity management actions.

The fiscal dominance and reliance on central bank financing of the budget deficit represent a major challenge that significantly complicates maintaining a sound monetary policy framework in Yemen. Accordingly, a prudent fiscal policy needs to be adopted to support implementing a robust monetary policy framework that can effectively anchor inflationary expectations and achieve price stability.

Finally, the CBY faces compliance issues in enforcing the overarching regulation framework for commercial banks, given that most of them (except Ahli Bank) are headquartered in Sana'a. This could, in turn, impact the efficiency and time-effectiveness with which the proposed operational framework for monetary policy implementation is adopted and implemented.

USAID ECONOMIC RECOVERY AND LIVELIHOODS PROJECT (ERLP) IN YEMEN

ANNEX 3

DETAILS OF ALL ACCOUNT MOVEMENTS & STATUS (JUNE 2018 – MARCH 2021)

March 2021

Prepared for the United States Agency for International Development, USAID Order # 72027920M00001

USAID/Yemen - Economic Recovery & Livelihoods Program (ERLP)

The Pragma Corporation, 116 East Broad Street, Falls Church, VA 22046

DETAILS OF ALL ACCOUNT MOVEMENTS & STATUS (JUNE 2018 – MARCH 2021)

STATUS	BANK NAME	CCY	USD MILLION EQUIVALENT		
			JUN-18	AUG-20	MAR-21
A	Federal Reserve Bank N.Y	USD	49	1	2
A	Investment account with FRBNY	USD	34	0	0
	Investment account with FRBNY	Gold	103	103	76
A	National Commercial Bank - Riyadh	SAR	60	151	148
A	National Commercial Bank - Jeddah	USD*	2,000	72	148
		SAR*	0	71	15
A	National Bank of Egypt - Cairo	USD	0	0	0
A	Mashreq Bank - Dubai	USD	0	0	0
		AED	0	0	0
F	Deutsche Bundes Bank	EUR	0	0	0
A	Bank of Beirut	USD	0	1	1
		SAR	0	2	2
F	National Bank of Kuwait - Bahrain	USD	6	6	6
		EUR	2	2	2
		GBP	0	0	0
		KWD	2	2	2
A	Arab Bank - Amman	USD	0	0	0
F	The Arab Investment company	USD	0	0	0
		SAR	0	0	0
F	Bank for international settlement.	USD	109	109	109
		EUR	166	166	180
F	Bank Of China - Hong Kong	USD	43	43	43
		EUR	2	2	2
		CNY	12	12	11
F	Bank of Tokyo Mitsubishi - Tokyo	JPY	3	3	2
F	Bank Of England	GBP	103	103	115
F	Commerz Bank	USD	1	1	1
		EUR	1	1	1
F	Union Bank of Switzerland	CHF	0	0	0

Key:

A = Active F = Frozen

Notes:* *This represents the Saudi LOC which has been topped up modestly after being almost exhausted as of the end of December 2020. USD70 million of the Saudi LoC was used to cover LCs for Yemeni banks, with Bank of Beirut as a counterpart, these funds are currently being claimed back from Bank of Beirut with no expected recovery date, and CBY indicated they might need assistance in this respect.*

ECONOMIC RECOVERY & LIVELIHOODS PROGRAM (ERLP) – YEMEN

ANNEX 4

FX RESERVES INVESTMENT MANAGEMENT POLICY PROTOTYPE

March 2021

Prepared for the United States Agency for International Development, USAID Order # 72027920M00001

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I. INTRODUCTION

The Reserves Investment Management Policies and Guidelines prototype is designed to cover the general policies and procedures linked to reserves management. This prototype was developed over the course of QII using BIS best practice reserves management and some elements of the prototype developed over the course of Q1, in addition to incorporating elements of the current reserves management policy of the CBY, which was prepared in conjunction with the World Bank for the CBY in Sanaa.

BIS best practices for reserves management incorporates an overview of trends and challenges for reserves management globally, relying on data covering 80% of reserves under management by central banks and monetary authorities. Some of the *trends* documented include i) an increased focus on returns, ii) a more structured approach to decision making, iii) strengthened risk management (both for financial risks and operational risks), and iv) increased requirement for public disclosure. Some of the *challenges* highlighted include i) balancing returns vs. risks, ii) choice of benchmark currency, and iii) how much public disclosure.

According to WB/IMF data, global central bank reserves are estimated at USD11.0 trillion as of 2020, more than a sixfold increase since the Asian Financial Crisis (Figure 1), while holdings of non-traditional reserve currencies such as the AUD and CAD increased (Figure 2).

Figure 1: Official World Foreign Exchange Reserve Holdings

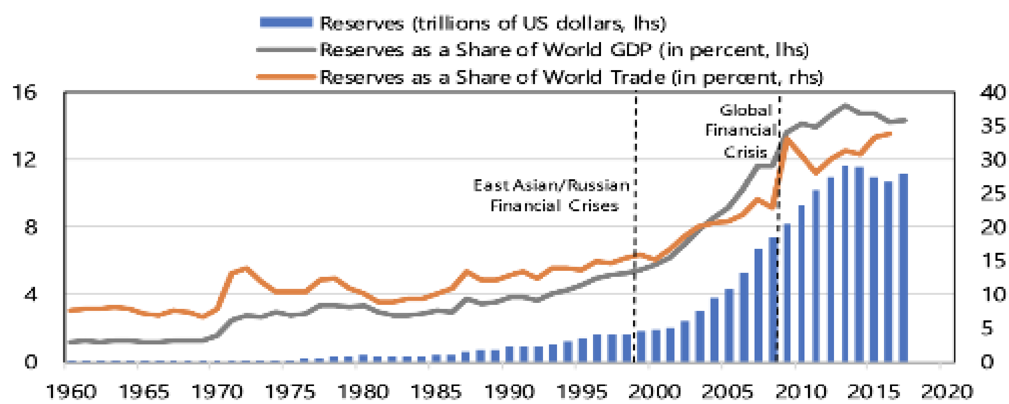
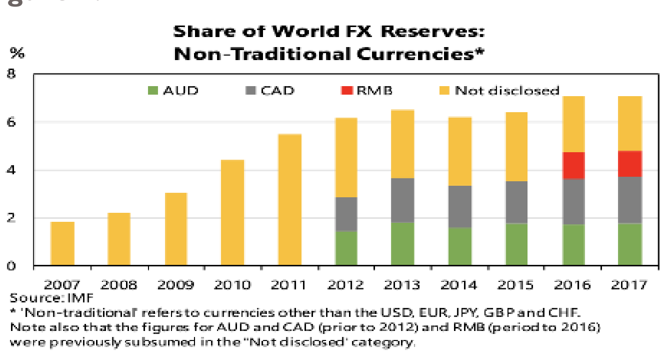


Figure 2:



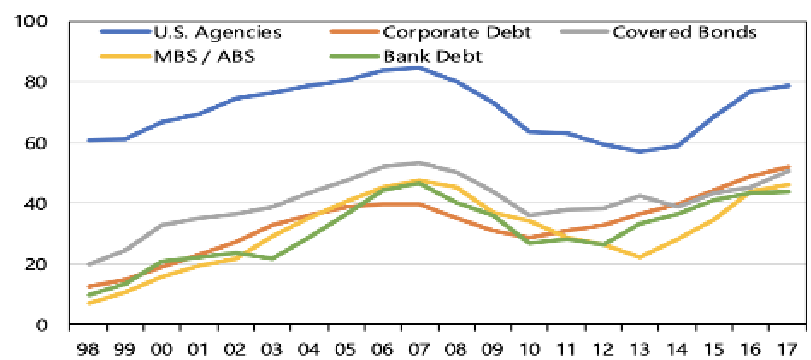
Source: IMF, WB. IMF WP/18/31, February 2018.

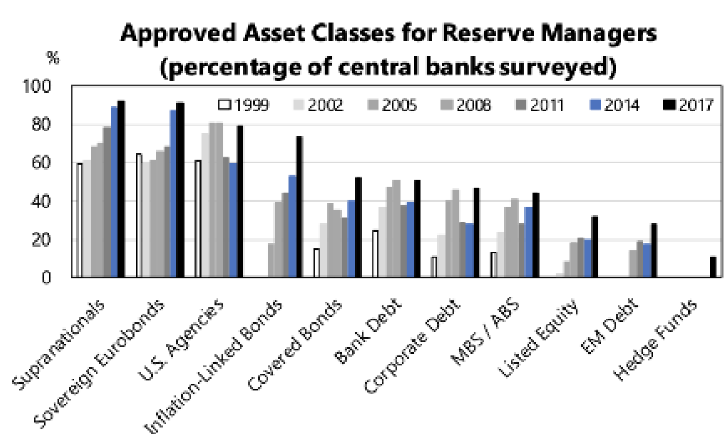
INCREASED FOCUS ON RETURNS

Liquidity and capital preservation are the predominant primary objective of best practices reserves management. Nonetheless, the secondary objective of optimizing returns has increased in dominance in the recent past. This has reflected in best practice reserves management as follows.

a) Central banks broadened the range of asset classes in which they can invest and shifted portfolio composition to include slightly more allocation to riskier assets. The main instruments traditionally were highly liquid, safe assets, such as bank deposits, Treasury bills, highly rated government, and supranational bonds. The riskier assets, which began to feature in central bank reserve portfolios increasingly, feature more appetite for the market, credit, and to a smaller extent, market liquidity risks. A survey of these is presented in Table 1 below. Post the Global Financial Crisis (GFC) of 2008 (and indeed for some central banks such as the Japanese Central Bank since the 1990s), other much riskier asset classes such as corporate bonds, listed equities, and real estate featured as asset classes for allocation of reserves, all as a tool to inject liquidity to the market in deflationary environments caused by crises. Finally, at large less reliance on gold has been a perceived trend, and an increase in the use of derivatives, predominantly forwards and currency swaps for overlay strategies and tactical allocations. Figure 3 and Table I enumerate approved holdings of different investable asset classes and the percentage of central banks surveyed which use them.

Figure 3: Approved Investable Classes by Central Bank Reserves Managers Globally





Source: UBS Reserves Manager Survey. IMF WP/18/31, February 2018

Table 1: Investable asset classes and instruments (% of responding central banks)

Asset class or instrument	2002	2004	2005	2007[1]	2007[2]
Supranational bonds	*	86	*	96	*
Treasury bills	*	89	*	100	*
Bank deposits	*	94	*	96	*
Government bonds	*	80	*	100	*
Government bonds below AA	*	57	57	33	*
Agency paper	81	65	67	93	88
Mortgage-backed securities	} 37	28	25	59	} 42
Asset-backed securities		29	25	48	
Corporate bonds (investment grade)	} 23	17	21	41	35
Corporate bonds below BBB		2	4	7	2
Index-linked bonds	*	*	25	56	37
Equities	12	6	8	19	9
Hedge funds	2	2	0	4	2
Other	93	15	8	52	12[3]
Derivatives	52	*	*	89	80
Gold	*	57	*	81	*
Memo: number of respondents	*43*	*65*	*48*	*27*	*43*

* Indicates that this option was not available.

Source: BIS Survey. BIS Paper No. 40. May 2008.

Over two-thirds of central banks surveyed by the BIS use external managers to outsource the management of anywhere between 5% to 15% of their reserves portfolio. The motivation for this is to have an open channel for knowledge transfer from the professional asset manager, to gain the advantage of specific expertise over a certain sector or asset class, for returns pick up or portfolio diversification.

c) Growing tendency for reserves portfolio tranching. Two-thirds of the central banks responding to the BIS survey had segregated their reserves portfolio into at least two tranches: a liquidity tranche and an investment tranche, with each tranche having a different set of investment guidelines.

d) The creation of Sovereign Wealth Funds. There is also a large number of countries that created a separate segregated fund altogether with a stronger mandate to focus on returns. Some examples include the UAE, Norway, Singapore, Libya, Kuwait, China, Hong Kong, Singapore, Russia, Australia, Qatar, Algeria, Korea, and most recently Egypt. Perhaps Yemen could consider some sort of an intergenerational wealth transfer vehicle at a later stage, such as an oil reserve fund.

A MORE STRUCTURED APPROACH TO DECISION-MAKING

This features more top-down decision-making with more formal involvement of the executive at a strategic level and 'vertical tiering' of the reserves management process. It also features increased functional separation of activities ('horizontal separation'). A survey of best practice organizational structure and reporting lines is presented in Table 2 below.

Table 2: Organisational Structure & Reporting Lines (% of responding central banks)

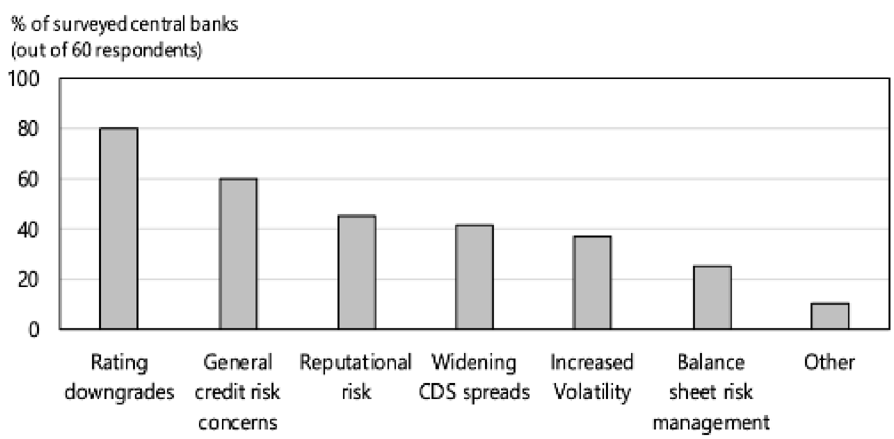
	Front and back office	Front and middle office[1]
Separated until executive level	48	28
Separated until an intermediate level	28	36
Separated to head of department level or lower	24	36

[1] Middle office is defined here to be the functional area responsible for performance evaluation and attribution.

Source: BIS Survey. BIS Paper No. 40. May 2008.

As more focus is placed on returns and a more structured decision-making process, risk management had to be strengthened, both at the level of financial risks (counterparty credit risk, market & liquidity) and operational risks. Liquidity risks are usually more muted since the Strategic Asset Allocation (SAA) naturally ensures that the instruments in the investable universe can be easily traded in the market (based on indicators such as the size of the market, bid-ask spreads, trading volume, the existence of a repo market and presence of traded credit-default-swaps on the name (CDS)). Figure 4 below presents the risk management triggers for reserves management portfolio rebalancing by world central banks post the Global Financial Crisis (GFC) of 2008.

Figure 4: Risk Management Triggers for Reserves Portfolio Rebalancing



Source: Murahan & Molder 2013. IMF WP/18/31, February 2018.

Market risks account for the largest share of the financial risk to which foreign exchange reserves are exposed. Technology and tools for measuring market risk have evolved greatly over the last two decades, with a lot of these tools easily monitored via the use of platforms such as Bloomberg or Refinitiv. Yemen can easily implement these; the need to focus on the most relevant indicators and interpretation and training on best practices in measuring market risks is incorporated in the planned training on best practice reserves management.

The indicators and tools used by central banks globally to manage market risks are presented in Table 3 below.

Table 3: Use of Market Risk Indicators & Tools (% of responding central banks)

Scope and methodology	
Aggregated over the total portfolio	52
Measurement methods	
Value-at-risk	96
Duration analysis	89
Stress testing	71
Other	43
Back testing	50
Of which over the total portfolio	82

Source: BIS Survey. BIS Paper No. 40. May 2008.

The indicators and tools used by central banks for the management of credit risk globally are presented in Table 4.

Table 4: Use of Credit Risk Indicators & Tools (% of responding central banks)

Credit limits based on	
Credit rating	96
Balance sheet information	74
Type of counterparty	44
Size of foreign exchange reserves	44
Maturity	44
Other	19
Scope of credit limits	
Investments	92
Deposits	85
Derivatives	85
Reverse transactions	69
Settlement	58
Concentration limits	
By sector	63
By country	58

Source: BIS Survey. BIS Paper No. 40. May 2008.

The indicators and tools used by central banks for the management of operational risk globally are presented in Table 5 below.

Table 5: Use of Operational Risk Indicators & Tools (% of responding central banks)

Methodology	
Event log	67
Self-assessment based on questionnaires	59
Key risk indicators	37
Other	56

Source: BIS Survey. BIS Paper No. 40. May 2008.

management. This prototype was developed over the course of QII relying on the BIS best practice reserves management summarised above, in addition to some components of the prototype developed over the course of Q1, in addition to incorporating elements of the current reserves management policy of the CBY, which was prepared in conjunction with the World Bank for the CBY in Sanaa.

II. RESERVES MANAGEMENT POLICY PROTOTYPE

According to the BIS and ECB, Risk Management for Central Bank Reserves, 2004, the management of foreign exchange reserves is an important task undertaken by central banks. Depending on the design of exchange rate arrangements and the requirements of monetary policy, foreign reserve assets may serve a variety of purposes, ranging from exchange rate management to external debt management.

Hence central banks' efficient management of foreign reserves is vital if they are to fulfill their mandates comprehensively. In particular, efficient allocation and management of foreign reserves will promote the liquidity needed to fulfill policy mandates while at the same time minimizing the costs of holding reserves. Central bank foreign reserves risk management can contribute to these objectives by managing and controlling the exposure to financial and operational risks.

In recent years, many central banks have expanded their risk control units into comprehensive risk management functions, beneficially independent to some extent from the bank's risk-taking activities and supporting decisions at all stages of the foreign reserves investment process. In addition to supporting traditional control functions such as compliance monitoring, foreign reserves risk management can contribute to the translation of policy goals into specific and efficient strategic asset allocations that focus not only on risk but also on return.

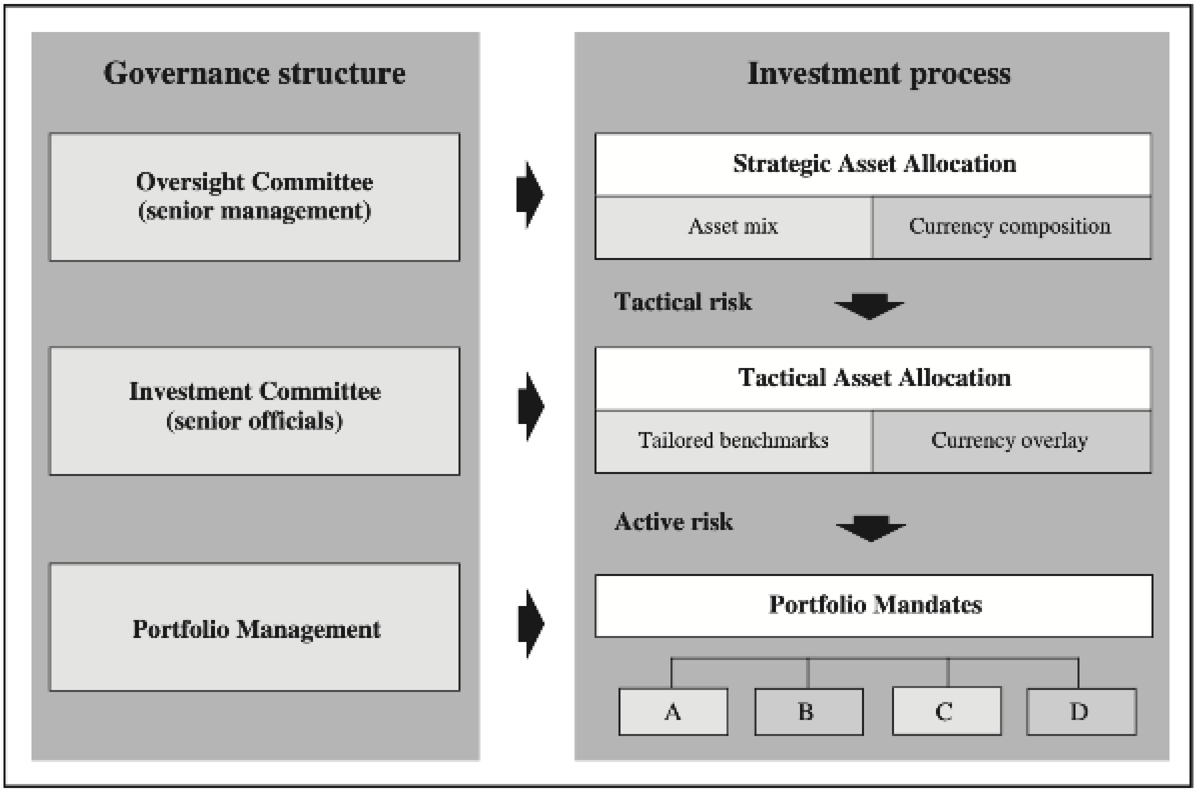
Cardon (BIS) & Coche (ECB) devised a blueprint for a strategic asset allocation framework which we believe suits very well the needs of Yemen over the coming decade as they continue to build out their reserves portfolio. The importance of a sound organizational setup cannot be underscored enough. First, **(i)** a three-tier governance structure comprising an oversight committee, investment committee, and actual portfolio management is one suggested approach whereby asset allocation decisions can be efficiently implemented. Second, **(ii)** the design of investment philosophies, which translate general policy requirements into concrete portfolio return objectives and risk constraints, is required when establishing the long-term risk-return profile. Third and finally, **(iii)** a quantitative framework for deriving the actual asset allocation must be developed.

THREE-TIER GOVERNANCE STRUCTURE

The importance of a sound organizational setup for managing reserves efficiently cannot be sufficiently underscored. In terms of an active investment style, a three-tier governance structure will be recommended, where the responsibilities for strategic, tactical asset allocation, and actual portfolio management are clearly segregated. Once in place, this framework will facilitate a disciplined implementation of the asset allocation decision and should help in clarifying accountability, managing risks, and promoting a risk awareness culture across the organization.

A necessary requirement for transparency and accountability is a clearly specified investment process in combination with a sound governance structure. If the central bank decides on an active investment style, an increasingly popular practice is to have a three-tier governance structure comprising an Oversight Committee, an Investment Committee, and Portfolio Management units that are responsible for strategic and tactical asset allocation and actual portfolio management. Figure 5 illustrates this three-tier governance structure with an investment process that allows active reserves management. Starting from a passively managed strategic asset allocation, a tactical asset allocation is added, followed by actual portfolio mandates. *This setup aims to improve the risk-return profile of the strategic benchmark by providing the necessary flexibility to take advantage of short to medium-term investment opportunities.*

Figure 5: Optimal Organisational Setup



Source: Cardon & Coche. BIS and ECB, Risk Management for Central Bank Reserves, 2004

DESIGN OF INVESTMENT PHILOSOPHY AND INVESTMENT PRINCIPLES

Investment philosophies for central banks are the means whereby policy requirements can be translated into investment principles. To derive the reserves' strategic asset allocation, general policy objectives, such as the provision of liquidity, the reduction of external vulnerability, or the storage of national wealth, have to be transformed into more specific, quantifiable return objectives and risk constraints. These objectives and constraints are to be laid down in the Statement of Investment Principles and form the basis for determining the optimal combination between reserves' expected return, liquidity (risk), and security (market and credit risk). In addition, the investment principles also define the organizational setup and make specific provisions for the conduct of tactical asset allocation, portfolio implementation, and risk management.

Given the case of Yemen, the asset and liability approach to reserves management is recommended as an investment philosophy; this seeks to integrate the management of reserves portfolios with either the central bank's ability to bear financial risks or the country's external debts.

This approach, which is growing in importance, might be considered the overriding principle for determining the objectives and constraints of reserves management. Asset liability management refers either, in a narrow definition, to a joint consideration of asset and liability items on the central bank's books or, more broadly, incorporates the management of the country's sovereign or external debt.

In a narrow definition, the size of foreign reserves, the currency distribution, and the strategic benchmarks would be determined simultaneously in a balance sheet context, hence the importance of the debt management systems and data warehouse components of our workflow with the CBY.

Such an approach exploits, in addition to diversification effects within the foreign reserves, the risk reduction or income enhancement potential stemming from the reserves' correlation with other balance sheet items and increasing balance sheet efficiency.

To be more specific, the following objectives are recommended from an asset and liability perspective: maximizing income from the reserves given the entity's ability to bear financial risks, or minimizing the reserves' contribution to the overall balance sheet risk, alternatively minimizing the shortfall of income from the reserves with respect to its funding.

In particular, when the institution's responsibilities encompass both reserves management and debt management, asset-liability management may be applied in a broader sense. In such a case, objectives and constraints for deriving the strategic asset allocation can be determined against the size and characteristics of foreign currency liabilities. For example, reserves management may strive to find the optimal risk-return combination in a setup where risk is measured relative to the composition of external public sector debt.

QUANTITATIVE FRAMEWORK FOR STRATEGIC ASSET ALLOCATION

The reserves' long-term risk-return profile is derived from the established investment principles. The strategic asset allocation process is determined in practice by following a **four-step process,** comprising the quantification of risk tolerance and investment horizon, the formation of return and risk expectations, optimization, and the actual selection of the strategic asset allocation. *We recommend a structured approach as such that offers the advantage of being efficient on the one hand while also ensuring CBY senior management focus on specifying preferences and policy requirements on a strategic level, while operational flexibility is maintained so long as it is within the strict policy requirements on the strategic level. This approach allows the tactical flexibility required to optimize returns and mitigate risks.*

STEP 1: RISK TOLERANCE AND INVESTMENT HORIZON:

For example, one risk tolerance statement could be that expected returns on the reserves portfolio have to be maximized subject to the condition that there are no negative returns in absolute terms for any investable asset class or for the portfolio as a whole. This is a very conservative risk tolerance statement. Another example could be that only 5% of losses are allowable over a 20-year horizon, or in other words, one year in every 20 years, negative returns will be tolerated, so long as all portfolio constraints are observed. This is a conservative risk tolerance statement, but less so than the first example. ***For Yemen, we recommend the former.***

The investment horizon for the reserves' strategic asset allocation is closely linked to the objectives and constraints laid down in the investment principles. If reserves are held to provide ready liquidity for financing foreign exchange policy operations, the investment horizon is related to the probability, timing, and volume of such operations (i.e., matching of these liabilities). Alternative objectives, such as the management of external debt, may require different specifications. ***For Yemen, we recommend two segregated portfolios to manage each stream of liabilities initially.***

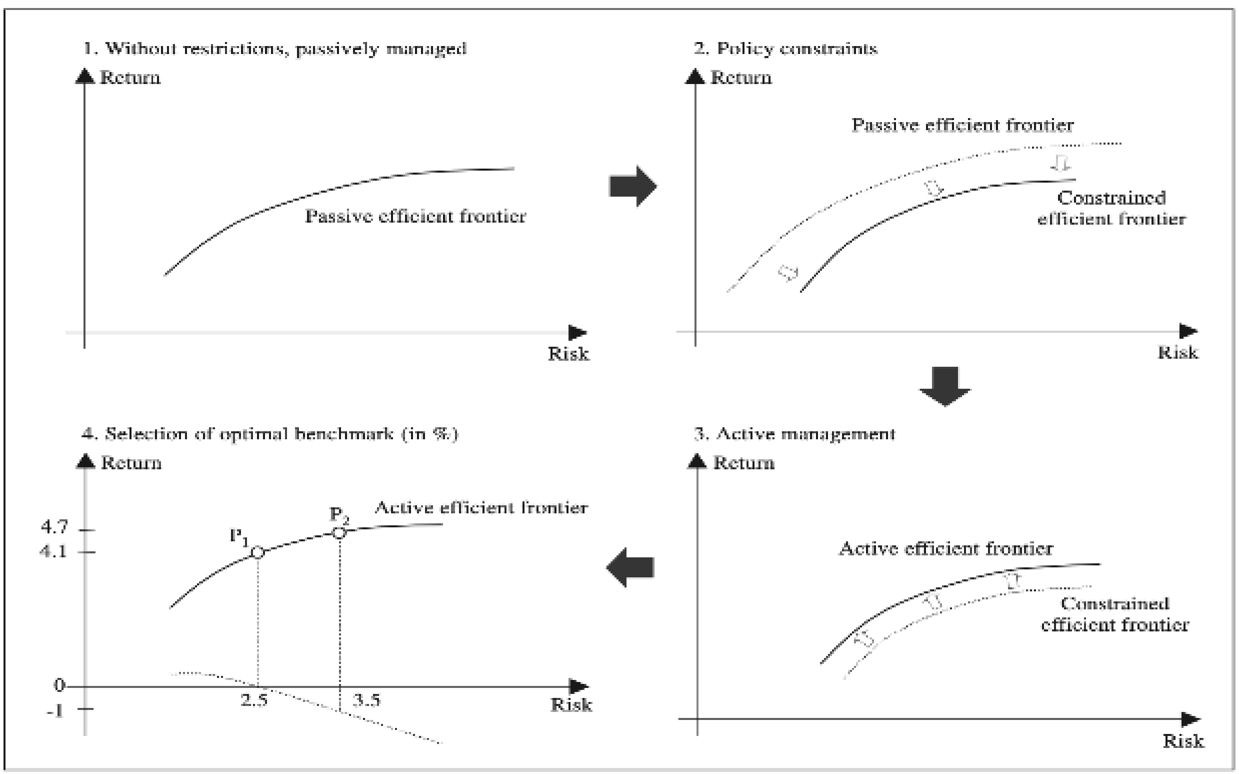
STEP 2: FORMATION OF RETURN AND RISK EXPECTATIONS

Historic average returns might represent a starting point for the generation of return and risk expectations, which is what we recommend for Yemen. At a later stage, strategic asset allocation may aim to generate risk and return expectations that are forward-looking.

STEP 3: OPTIMIZATION

The management of the reserves portfolio aims to maximize returns and minimize risks, i.e., the derived expectations about the assets' risks and returns are transformed into an efficient frontier (the set of investment assets with return and risk combinations that outperform any other combinations of assets), which is a set of portfolios that maximize expected returns at each level of portfolio risk.

Figure 6: Reserves Portfolio Optimization for return-risk trade-offs and policy constraints



Source: Cardon & Coche. BIS and ECB, Risk Management for Central Bank Reserves, 2004

STEP 4: SELECTION OF A STRATEGIC ASSET ALLOCATION

The purpose of taking a quantitative approach to the investment process is to evaluate the portfolio optimization process, but more importantly, to provide a starting point for discussions among risk managers, portfolio managers, and senior management on why and to what extent the final strategic asset allocation should deviate from the optimization results.

These discussions, for example, could introduce further policy requirements and try to balance additional constraints, which are difficult to capture within a purely quantitative framework. Part of this process is assessing implementational aspects of the planned asset allocation from a portfolio management point of view. In the end, against the background of the models' limitations, policy requirements, and portfolio management considerations, the process should result in a strategic asset allocation with an overall risk-return profile senior management of the CBY is most comfortable with.

Typically, the strategic asset allocation will be expressed in terms of a percentage weighting of asset classes and deviation ranges. The design of the strategic benchmark and currency, and thus the implementation of the agreed asset weighting by means of market indices or notional portfolios, is addressed at the implementation level.

III. PROTOTYPE OF INVESTMENT POLICIES & GUIDELINES FOR RESERVES MANAGEMENT IN LINE WITH GLOBAL BEST PRACTICE

CENTRAL BANK OF YEMEN RESERVES MANAGEMENT

The management of foreign exchange reserves is an important task undertaken by the Central Bank of Yemen (CBY) that caters to supporting the exchange rate arrangements towards eliminating multiple currency practices (MCPs) and helping to fulfill the requirements of monetary policy. Thus, foreign reserve assets serve various purposes, ranging from exchange rate management to external debt management. The CBY's efficient management of foreign reserves is vital if they are to fulfill their mandate comprehensively. In particular, efficient allocation and management of foreign reserves will promote the liquidity needed to fulfill policy mandates while at the same time minimizing the costs of holding reserves. The CBY's foreign reserves risk management can contribute to these objectives by managing and controlling the exposure to financial and operational risks.

Liquidity and capital preservation are the primary objectives of the CBY's reserves management. Nonetheless, a secondary objective of optimizing returns while minimizing risks is also important given the scarcity of resources available to the CBY.

PURPOSE OF RESERVES MANAGEMENT POLICIES & GUIDELINES

The purposes of the reserves management policies and guidelines are to describe the governance framework, the reserves' long-term risk-return profile, and investment principles. The strategic asset allocation is determined in practice by quantifying risk tolerance and investment horizon, the formation of return and risk expectations, optimization guidelines. This structured approach offers the advantage of being efficient on the one hand while also ensuring CBY senior management focuses on specifying preferences and policy requirements on a strategic level, while operational flexibility is maintained so long as it is within the strict policy requirements on the strategic level. This approach allows the tactical flexibility required to optimize returns and mitigate risks.

DUTIES AND RESPONSIBILITIES

The importance of a sound organizational setup for managing reserves efficiently for the CBY is of tantamount importance. The three-tier governance structure, where the responsibilities for strategic, tactical asset allocation, and actual portfolio management are clearly segregated, is needed for implementation. Once in place, this framework at the CBY will facilitate a disciplined implementation of the asset allocation decisions and should help in clarifying accountability, managing risks, and promoting a risk awareness culture across the CBY.

A necessary requirement for transparency and accountability is a clearly specified investment process in combination with a sound governance structure. The three-tier governance structure proposed for the CBY comprises an Oversight Committee, an Investment Committee, and Portfolio Management units that are responsible for strategic and tactical asset allocation and actual portfolio management (refer to Figure 5 in the introduction). The three-tier governance structure starts an investment process that allows active reserves management. Starting from a passively managed strategic asset allocation, a tactical asset allocation is added, followed by actual portfolio mandates. *This setup aims to improve the risk-return profile of the strategic benchmark by providing the necessary flexibility to take advantage of short to medium-term investment opportunities by the CBY.*

STATEMENT OF INVESTMENT GOALS, OBJECTIVES & CONSTRAINTS

In the case of the CBY, the goals, objectives, and constraints for deriving the strategic asset allocation can be determined for three main portfolio tranches or segments.

The first portfolio tranche or segment is to be dedicated to a liquidity portfolio to manage cash flow requirements over the short run from 0 months to 24 months.

The second portfolio tranche or segment to be dedicated to liabilities matching, to the size and characteristics of foreign currency liabilities. For example, CBY could determine goals, objectives, and constraints relative to the composition of external public sector debt in the first instance, later to be also expanded to include private sector debt, as the latter will need to resort to the CBY as LOLR if they have a shortfall to cover their obligations. This is a medium to long-term portfolio covering the 2-year to 20-year investment horizon.

The third portfolio tranche or segment to be dedicated for yield enhancement and could include some allocation from oil revenues and invest in a broader spectrum of instruments compared to the first two portfolios. This third portfolio could serve as a core seed for establishing an intergenerational sovereign wealth fund at a later stage. This is also a medium to long-term portfolio, with fewer restrictions, however, and a larger investment universe to cater to the primary objective of yield enhancement. The relative size of this third portfolio should initially be very small.

Finally, it is recommended that the benchmark currency used to be initially the USD and could later be investigated whether the move to a basket of currencies would be more appropriate as Yemen grows its trading partners (the main counterparts Saudi Arabi and UAE currencies are pegged to the USD; hence this is justified).

A. Objectives: The objective of each portfolio, tranche, or segment should be stated clearly.

i. Return Requirements: should clearly specify a target rate of return for each portfolio, initially based on historical trends, and could be later substituted with forward-looking analysis to determine required returns.
ii. Risk Tolerance: should be stated clearly for each portfolio tranche or segment. Initially using a simple volatility metric and also a duration metric which could be easily calculated from Refinitiv or Bloomberg. More sophisticated metrics could be later implemented, such as a VaR approach or a shortfall approach.

B. Constraints: The constraints should clearly specify the constraints for each portfolio tranche or segment. Each portfolio in nature is very distinct; therefore, the constraints should match the characteristics of the portfolio in terms of:
   i. Liquidity
   ii. Horizon
   iii. Regulations
   iv. Unique Needs

C. Policies: There should be an overall investment policy for the reserves portfolio with an overall return objective, risk tolerance level, and strategic asset allocation among the three portfolio tranches and segments. This would be informed by the relative size of liquidity or cash flow requirements, liabilities, and a small relative weight allocated to the yield enhancement portfolio, which is less restricted. The yield enhancement portfolio could also include a small portion to be professionally managed by international asset managers to capture certain asset class or segment expertise and also to ensure a continuous transfer of knowledge of best practice to the CBY.

   For each portfolio, a dedicated sub-investment policy should be designed, which includes specifically:

   i. Asset Allocation targets.
   ii. Diversification constraints.
   iii. Overall risk positioning.
   iv. Income generation requirements.

SCHEDULE FOR PERFORMANCE REVIEW AND INVESTMENT POLICY REVIEW

Performance reviews for each sub-portfolio and the aggregate portfolio should be done on a quarterly cycle with main KPIs and on an annual basis with a detailed performance attribution analysis and reported to CBY senior management and the board.

The Investment Policy & Guidelines themselves are a strategic document that should only be reviewed on a 3-year cycle once adopted and approved by the CBY board. Annexes to the Policy & Guidelines for tactical guidelines compliant with the strategy document are, however, reviewable every six months and do not need CBY board approval, rather only ratification by the Investment Committee.

PERFORMANCE MEASURES & BENCHMARKS

Performance measures initially could be limited to a set of KPIs for returns and risks for each portfolio segment. Later on, more sophisticated analytics can be added. The benchmark currency of the portfolio is USD initially, which could be later changed to a basket of currencies. A benchmark for each sub-portfolio should be chosen, which best represents the objective, risks, and horizon of the portfolio. For example, for the short-term liquidity/ cash flow portfolio, this could be two year UST. For the medium-term liability portfolio, ten-year UST, and for the yield enhancement portfolio, the Barclays or JP Morgan government bond indices (global or emerging markets depending on the asset allocation chosen for this sub-portfolio.

GUIDELINES FOR REBALANCING

Guidelines for rebalancing the strategic asset allocation among all three sub-portfolios should be put in place to match changes in factors that affect the underlying exposure that this sub-portfolio is matching. For each of the tranches or sub-portfolios, guidelines for rebalancing should also be in place, which includes both upside, tactical opportunistic guidelines for rebalancing to take advantage of market opportunities. They should also include guidelines on risk management triggers for rebalancing, such as credit rating downgrades, a reduction in the liquidity of an instrument, or a systemic crisis in an asset class or jurisdiction.

ECONOMIC RECOVERY & LIVELIHOODS PROGRAM (ERLP) - YEMEN

ANNEX 5

FX AUCTIONS REGULATIONS

March 2021

Prepared for the United States Agency for International Development, USAID Order # 72027920M00001

USAID/Yemen - Economic Recovery & Livelihoods Program (ERLP)

The Pragma Corporation, 116 East Broad Street, Falls Church, VA 22046

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1. GENERAL PROVISIONS

1.1. DEFINITIONS

The terms and expressions used in this regulation shall have the same meanings assigned thereto in the Law of the Central Bank of Yemen (CBY) No. (14) 2000, the Banking Law No. (38) 1998, the Law No. (21) 2009, amended by Law No. (16) 2009, regarding Islamic Banks, and the Republican Decree No. (20) 1995 regarding Money Changers, as amended by Republican Decree No. (15) 1996.

1.2. SCOPE

This regulation shall apply to all eligible commercial, Islamic and specialized banks and any branch of a foreign financial institution operating in the banking sector. This regulation shall also apply to eligible licensed money change companies and financial institutions licensed by virtue of the Law of the Central Bank of Yemen and the instructions and regulations thereof to participate in FX auctions.

1.3. OBJECTIVES

This regulation aims to achieve the objectives of the Central Bank of Yemen, in accordance with Law No. (14) of the year 2000, to promote a sound banking institution, improve the transparency and effectiveness of foreign currency trading, determine the exchange rate, and provide foreign currency to those in need in the private sector and maintain the stability of the Yemeni Riyal exchange rate against foreign currency, from the one hand. On the other hand, this regulation aims to regulate the FX activities of foreign currency, including mechanisms of verifying daily sales and purchases in accordance with permissible transactions, taking into consideration the compliance with the anti-money laundry and terrorist financing.

2. CRITERIA AND PROCEDURES

2.1. The Central Bank of Yemen, through the Foreign Currency Department at the External Banking Operation Directorate, shall hold a forex auction at 10:00 a.m. on Tuesday, Wednesday, and Thursday each week.

2.2. Invitation to the auction shall be sent by the Central Bank via the online system according to Attachment No. (1). If the day falls on an official holiday, it shall be carried on a preceding business day.

2.3. Eligible bidders of the auction are banks and money change companies operating under a special license from the Central Bank of Yemen, upon the criteria specified in the instructions issued by the Central Bank of Yemen to participate in the auction.

2.4. Licensed money change companies are required to participate in not less than 80% of the auction held in the licensing year. Failing to do will lead to the withdrawal of the auction license.

2.5. Non-banking financial companies, money change companies, and individuals not licensed to participate in auctions; will be able to participate exclusively through commercial banks after entering into specialized agreements thereto.

2.6. Non-cash transactions shall be auctioned in the currencies specified in the Central Bank's instructions against the Yemeni Riyal.

2.7. Each bidder shall submit a maximum of five bids, except for banks that have entered into agreements with non-banking financial companies, money change companies, and individual institutions ineligible to enter the auction; they are entitled to submit five other bids in favor of these bodies.

3. REQUIREMENTS FOR ENTERING AUCTIONS

3.1. Bidders shall meet the following requirements to be able to participate in auctions:

- 3.1.1. Submitting buy/ sell bids from 9:30 a.m. to 10:00 a.m., accompanied by exchange rate proposal according to Attachment (2), through the Foreign Currency Online Trading System of the Foreign Exchange Department – Foreign Banking Operations Directorate in the Central Bank.
- 3.1.2. Provide the Central Bank with information regarding the purpose of the foreign currencies to be purchased according to the data shown in Attachment (2). The goods shall be included in the published list of specified goods approved to request foreign currency.
- 3.1.3. Prepare accurate daily and monthly statements of the banks' or money change companies' foreign currency positions at the beginning of each day/month, according to the instructions of the Central Bank of Yemen as stipulated in Attachment (3). These position statements shall be submitted to the CBY before the auction date.
- 3.1.4. Bidders from licensed money change companies shall request commercial banks to cover their participation in the auction financially. Money change companies shall attach the letter of undertaking to cover them by banks according to Attachment (4) with the bidding sheet to the Central Bank.
- 3.1.5. Bidders from commercial banks shall deposit funds equivalent to the amount of bids they will submit and the amounts they have covered money change companies with into their accounts opened at the Central Bank of Yemen.
- 3.1.6. Money change companies are prohibited from participating more than once in the auction. Money change companies shall submit a written undertaking to the Central Bank according to Attachment (5), stating that it shall submit its bids in the auction covered by one commercial bank exclusively. It shall not be permissible to have multiple participations in a single auction due to the multiplicity of coverage from commercial banks.
- 3.1.7. Commercial banks covering qualified money change companies' bids in the auctions; shall submit a letter of authorization to the Central Bank of Yemen whereby it authorizes the Central Bank to settle money change companies' bank accounts from their participation in the auction from the money change companies' bank accounts at the Central Bank, according to Attachment (4).

3.2. The amount of each buy/ sell bid shall not exceed nor be less than the limit specified by the Central Bank in the Auction Announcement Attachment (9).

3.3. Commercial banks shall enter into agreements with non-banking financial institutions, money change companies, and exchange institutions ineligible to participate in the auction to submit five other bids according to Article (2.5) above.

3.4. Commercial banks and money change companies are obliged to notify the Central Bank of Yemen daily of all foreign transactions performed during the day.

3.5. Once the banks or money change companies submit their bids through the Central Bank of Yemen's Foreign Currency Online Trading System, they shall not have the right to cancel or alter their bids.

4. CANCELLING BIDS

4.1. The Central Bank of Yemen shall not allow any bank or company that failed to comply with the provisions of Article (3) of this regulation to participate in the auction.
4.2. The Central Bank of Yemen shall decline the bids that have failed to meet with the provisions of Article (3) of this regulation.
4.3. The Central Bank of Yemen shall preserve the right to cancel particular bids and/or auctions if it deems that the banks or money change companies submitted unfair and complicit bids in the auction or at prices that are non-saleable or not available for purchase in the auction.
4.4. The Central Bank of Yemen shall notify banks or money change companies whose bids were canceled through the Foreign Currency Online Trading System by 11:30 a.m.

5. AUCTIONING

5.1. The auction shall start at 10:00 a.m. and finish at 11:30 a.m.
5.2. Auctions shall be submitted according to the forms referred to in Attachment (2) uploaded to the Foreign Currency Online Trading System.
5.3. Fulfilled **buy bids** shall be identified as follows:
- 5.3.1. Attested bids shall be ordered from the highest price to the lowest price.
- 5.3.2. Attested bids shall be fulfilled from the highest price until the stock of foreign currencies available for sale runs out. If the total amount of fulfilled bids exceeds the foreign currency amount available for sale of a particular day, each bid fulfilled at the lowest price shall be satisfied in proportion to the total number of bids submitted on the same price.

5.4. Fulfilled **sell bids** shall be identified as follows:
- 5.4.1. Attested bids shall be ordered from the lowest price to the highest price.
- 5.4.2. Attested bids shall be fulfilled from the lowest price until the stock of foreign currencies available for purchase runs out. If the total amount of fulfilled bids exceeds the amount of foreign currency available for purchase on a particular day, each bid fulfilled at the highest price shall be satisfied in proportion to the total number of bids submitted on the same price.

5.5. The auction settlement for banks and money change companies in foreign currency shall be made pursuant to the banks' request, either to banks' accounts abroad of which details are deposited at the Central Bank, maximum two days from the auction date (T+2), or to the banks' accounts at the Central Bank, maximum on the following day of the auction date (T+1), unless it is a holiday at the bank or the correspondent banks, then it takes places after the holiday.
5.6. The auction settlement for commercial banks for Yemeni currency shall be made on bank accounts opened at the Central Bank maximum by the next day of the auction (T+1), unless it is a holiday at the bank, then it takes place after the holiday.
5.7. The settlement of money change companies auction amounts shall be made on the accounts of the commercial banks by virtue of the letter of undertaking from the commercial banks to the Central Bank to settle the auction account of these companies on the accounts of commercial banks opened with the Central Bank. Attachment (4).
5.8. Auction outcome shall be published to banks and money change companies through the Foreign Currency Online Trading System and shall be published on the same day at the Central Bank of Yemen's webpage in accordance with Attachment (6) of this Regulation.

6. FOREIGN CURRENCY ONLINE TRADING SYSTEM

6.1. The Foreign Currency Online Trading System, which is the electronic network system of the Central Bank of Yemen that carries the foreign currency auction between the Central Bank of Yemen, commercial banks, and money changes, and enables a full online auctioning process once developed and activated. The system also enables the Foreign Currency Department at the External Banking Operation Directorate to effectively and efficiently monitor and supervise the auction process. The inclusive services included allowing the public to access any needed data, information, and rates.

6.2. The auction shall be held through the Foreign Currency Online Trading System at 10:00 a.m. on the designated days.

6.3. In the event that the auctioning cannot be carried at 10:00 a.m. of the auction date due to force majeure and/or error with the online trading system, the following procedure shall be carried:

6.3.1. The Central Bank of Yemen shall extend the duration of auctioning. Before proceeding to do so, the Central Bank of Yemen shall contact banks 10 minutes before auctioning time through the Foreign Currency Online Trading System or via telephone or certified email.

6.3.2. In case the problem with the online trading system cannot be resolved, the commercial banks' buy/sell bids shall be submitted in a sealed paper copy according to Attachment (7) of this Regulation. The Central Bank of Yemen officer shall check if the bids are sealed and shall document the submission of bids with the staff of the commercial bank. The Central Bank of Yemen shall not accept any unsealed bid.

6.4. In case the commercial banks have entered the username and password three times incorrectly, the access to the foreign currency online trading system will be temporarily blocked. In such case, before the start of the auction, the commercial banks shall contact the Foreign Currency Department at the External Banking Operation Directorate by telephone and unblock their username and password.

6.5. In case the banks desire to renew their username and password, they shall submit their documented request to the Foreign Currency Department at the External Banking Operation Directorate at the Central Bank of Yemen. In doing so, the banks shall specify the reason for renewing their username and password with the signed approval of the person in charge of the bank.

7. THE CENTRAL BANK OF YEMEN'S RIGHTS AND RESPONSIBILITIES

7.1. The Central Bank of Yemen shall decide the amount of foreign currency to sell/buy in the auction and the type of auction.

7.2. The value of a single sell/buy bid shall be 25% of the auction value, any change in this value shall be notified to banks and licensed companies at the appropriate time by email one business day before the auction, according to Attachment (8).

7.3. The Central Bank of Yemen shall maintain the confidentiality of banks' and companies' information and data relating to the auction.

7.4. The Central Bank of Yemen, when required, shall preserve the right to cancel the auction in accordance with the provisions of this regulation and to hold the auction on another day. In such an event, banks shall be notified of the terms by email one day before the auction day.

7.5. The Central Bank of Yemen shall process auction-related transactions by 13:00 of the auction day.

7.6. In case of violation of the provisions of Article (8.5) of this regulation, the Central Bank of Yemen shall not bear any responsibility.

8. BANK'S AND MONEY CHANGE COMPANIES' RIGHTS AND RESPONSIBILITIES

8.1. The bank shall provide accurate data in relation to the auction and participate in the auction honestly.

8.2. The bank does not have the right to return or cancel its auctioning bid once the bid is uploaded to the Foreign Currency Online Trading System.

8.3. The bank shall notify the Central Bank of Yemen by paper documents of any change in the bank's authorized signatory and email address one day before the auction.

8.4. The bank shall bid to buy foreign currency only for the purpose identified in the instructions issued by the Central Bank of Yemen in accordance with this Regulation.

8.5. The bank shall keep the username and password access to the Foreign Currency Online Trading System confidential.

9. PENALTIES

9.1. The Central Bank of Yemen shall impose the following penalties on banks and money change companies that violate any provisions of this regulation:

- 9.1.1. For the first violation of the provisions of this regulation, the Central Bank of Yemen shall deliver a notification to the bank or the money change company and impose a penalty according to Article (74) of the Banking Law No. (38) of the year 1998, and according to chapter six of the Republican Decree No. (20) 1995 regarding Money Changers, as amended by Decree No. (15) 1996. In such a case, the bank's account at the Central Bank of Yemen shall be debited without any dispute, including the money change companies that the banks covenant to cover.
- 9.1.2. In case of repeated violation of this regulation, the Central Bank of Yemen shall disqualify the bank or the money change company from eight auctions in a row and impose a penalty.
- 9.1.3. In case of several violations of this regulation, the Central Bank of Yemen shall disqualify the bank or the money change company from participating in the auctions.

10. TRANSITIONAL PROVISIONS

The communication procedures used and the paper forms attached shall continue to be in force and sent via the approved email between the Central Bank and the bidders and continue to be applicable only until the establishment and activation of the Foreign Currency Online Trading System within a maximum period of ______ months from the effective date of this regulation. The bidding requirements later shall be only fulfilled through the Foreign Currency Online Trading System.

Board of Directors – The Central Bank of Yemen

Attachments and Forms:

1. Attachment No (1): Auction Announcement Form
2. Attachment No (2): FX Auction Bidding Sheet
3. Attachment No (3): Daily and Monthly FX Position Reports
4. Attachment No (4): Commercial Banks Coverage Letter Form
5. Attachment No (5): Commitment Letter Form
6. Attachment No (6): Auction Results Form
7. Attachment No (7): Paper Confirmation of Bid Form
8. Attachment No (8): Notification Form

ATTACHMENT (1) TO FOREX AUCTION REGULATION

ANNOUNCEMENT OF INVITATION TO FOREX AUCTION SESSIONS

The Central Bank of Yemen announces the holding of FX Auction for eligible banks and money change companies. The auction will be held according to the following details and the attached set of auction terms:

Day/date	Time: from-to	Currency	Sell bid	Buy bid	Fixed-price	Multiple price	Value of auction	Maximum limit

CENTRAL BANK OF YEMEN AUCTION TERMS:

- All bidders must comply with the terms of the auction and fulfill the necessary requirements pursuant to the Forex Auction Regulation.
- For auctions in foreign currencies, bids shall be submitted in the amount not less than 100,000 units of foreign currency and its multiples.
- For auctions in Yemeni Riyal, bids shall be submitted in the amount of 1,000,000 Yemeni Riyal and its multiples.
- Each bank or money change company is entitled to submit a maximum of five bids in each auction.
- A commercial bank that has entered into agreements with money change companies and individuals who are not eligible to participate in the bid may submit five other bids on behalf of these companies and individuals.
- Each money change company must obtain financial coverage from a commercial bank for each auction and attach the cover letter with the bid form.
- Each bank must deposit in its accounts at the Central Bank of Yemen the amounts equivalent to the sum of the bids participated with and those bids by money change companies that the bank covered.
- Each commercial bank must authorize the Central Bank to settle the account of the bank or the money change company's bids that are covered in the auction from the commercial bank's accounts at the CBY.

- Incomplete bids or bids that are not in compliance with the terms of the auction pursuant to the Forex Auction Regulation and related instructions will be canceled, and the bank or company shall be notified in writing of such cancellation.
- Banks and money change companies are allowed to enter the auction in single participation. If multiple participations were submitted, only the first bid would be accepted, and all others automatically canceled irrelevant of their content or prices.

ATTACHMENT (2) TO FOREX AUCTION REGULATION

FOREX AUCTION BIDDING FORM/BANKS

For the auction held on .... Commercial bank name……/

Buying amount: Selling amount:

1. BUYING BID

Bid number	Amount/ in Currency	Buy Price	Purpose		
			Customer's name	Imported item	Beneficiary's name and country
1					
2					
3					
Total					

2. SELL BID

Bid number	Amount/ in Currency	Sell price
1		
2		
3		
Total		

We hereby authorize the Central Bank of Yemen to withdraw from our Yemeni currency or foreign currency accounts in the Bank to settle our obligations from bidding in this auction.

First authorized signatory:

Second authorized signatory:

Stamp:

FOREX AUCTION BIDDING FORM/ MONEY CHANGE COMPANIES

For the auction held on .... Money change company name: ………….

Commercial bank issuing financial coverage name……

Buying amount: Selling amount:

1. BUYING BID

Bid number	Amount/ in Currency	Buy Price	Purpose		
			Customer's name	Imported item	Beneficiary's name and country
1					
2					
3					
Total					

2. SELL BID

Bid number	Amount/ in Currency	Sell price
1		
2		
3		
Total		

We hereby attach the letter of coverage issued by the above-mentioned bank to guarantee our participation in the auction and authorize the Central Bank of Yemen to settle our bids from its accounts with the CBY.

First authorized signatory:

Second authorized signatory:

Stamp:

ATTACHMENT (3) TO FOREX AUCTION REGULATION

Statement of balances in foreign currencies and Yemeni Riyal

At bank/company/ …………. During the month ……/……./ 20……

Units in thousands

	Balances at the beginning of the month					Balances at the end of the month				
	Cash	Cheques	Local banks	External banks	Total	Cash	Cheques	Local banks	External banks	Total
USD										
GBP										
Euro										
SAR										
AED										
QR										
KD										
BHD										
OMR										
Others										
Value of foreign currencies in USD						Value of foreign currencies in USD				
Yemeni Riyal										

Signature of Responsible Director:

Stamp:

ATTACHMENT (4 TO FOREX AUCTION REGULATION)

BANKS UNDERTAKING TO COVER MONEY CHANGER COMPANY ENTERING FOREX AUCTION

For the auction held on ..../...............

Commercial Bank – Undertaker name………….

Money Change Company………………………......

NO.	AUCTION DATE	BUY BID	SELL BID	AMOUNT VALUE	CURRENCY	NATURE OF THE UNDERTAKING
1						Cheque
2						Guarantee
3						Cash deposit
Total						

Commercial Bank:

Authorized signatory:

Stamp:

Date:

ATTACHMENT (5) TO FOREX AUCTION REGULATION

MONEY CHANGE COMPANIES' UNDERTAKING IN FOREX AUCTION

For the auction held on:…………………………….

Money Change Company:………………………….

Commercial Bank Undertaking to Cover:………..

The above-mentioned money change company licensed to participate in forex auction hereby undertakes to participate in the auction once with a single bid form, covered by one specific commercial bank. It pledges not to participate in multiple participation covered by several banks in a single auction.

Money Change Company:

Signatory:

ATTACHMENT (6) TO FOREX AUCTION REGULATION

FX AUCTION RESULTS PUBLISHING FORM_ **For the auction held on ....**

1. FOREX BUYING BID

Accepted Price	
Auction Volume	
Total Accepted Bids	
Number of Participants	
Coverage Ratio	
Allocation Ratio	
Average Auction Price	
Highest Auction Price	
Lowest Auction Price	

2. FOREX SELLING BID

Accepted Price	
Auction Volume	
Total Accepted Bids	
Number of Participants	
Coverage Ratio	
Allocation Ratio	
Average Auction Price	
Highest Auction Price	
Lowest Auction Price	

Central Bank of Yemen

ATTACHMENT (7) TO FOREX AUCTION REGULATION

BIDDING CONFIRMATION FORM

For the auction held on ....

No.	Name of Bank Money Change Company	Name/Title of Bank Money Change Company Employee	Bank/ Money Change Company Employee Signature	CBY Employee Signature	Time of Submission
1					
2					
3					
4					
5					
6					

Stamp:

Foreign Currency Department

External Banking Operation Directorate

Central Bank of Yemen

ATTACHMENT (8) TO FOREX AUCTION REGULATION

NOTIFICATION

For the auction held on ....

Pursuant to the provisions of Article (7.3) of this Regulation, we hereby notify that the amount of one sell/buy bid in the auction shall not exceed ……..(amount/ currency….) and shall not be less than …… (amount/currency) from …(date).

Central Bank of Yemen

ECONOMIC RECOVERY & LIVELIHOODS PROGRAM (ERLP) - YEMEN

ANNEX 6

FX DATA WAREHOUSE

March 2021

Prepared for the United States Agency for International Development, USAID Order # 72027920M00001

USAID/Yemen - Economic Recovery & Livelihoods Program (ERLP)

The Pragma Corporation, 116 East Broad Street, Falls Church, VA 22046

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LIST OF ACRONYMS

CBY	Central Bank of Yemen
DFID	United Kingdom's Department for Foreign and International Development
DMFAS	Debt Management and Financial Analysis System
DWH	Data Warehouse System
ERLP	USAID's Economic Recovery and Livelihoods Program
ETL	Extraction Transformation and Loading
FX	Foreign Exchance
IT	Information Technology
LOC	Letters of Credit
MEG	USAID's Middle East Economic Growth Best Practices Program
MTM	Mark-to-Market
P&L	Profit and Loss
USAID	United States Agency for International Development
VAR	Value at Risk
YESS	USAID's Yemen Economic Success and Stabilization Program

BACKGROUND

The data system at the CBY is quite outdated. While the system in place was minimally adequate for rudimentary FX management needs, modern data practices require a significant upgrade with updated products and processes in the Reserve Management Department and a new Data Warehouse System (DWH). The current system, for example, cannot easily retrieve necessary information or produce standard reports that include charts and graphics. A DWH provides the means to produce clean, accurate, timely, and integrated data. Specifically, it allows a central bank to:

- Build or mine historical data,
- Make timely decision making on risk management,
- Conduct market research and analysis, and generate routine reports,
- Allow the CBY reserve management users to quickly access critical data from some sources all in one place,
- Provide consistent information on various cross-functional activities,
- Conduct ad-hoc reporting and query,
- Integrate multiple sources of data to reduce stress and load on the core system,
- Reduce total turnaround time for analysis and reporting, and
- Store a large amount of historical data. Allowing the CBY reserve management team to analyze different periods and trends to make future predictions.

To date, the DFID-funded MEG/YESS Team has initiated several steps toward building a new automated DWH for the CBY by transferring the historical data to a new excel-based system for more automated tracking and reporting. Although this is just a first step, key products and processes needed for adequate reserve management are detailed below, followed by a detailed action plan to install a modern data warehouse at the CBY.

The biggest obstacle to CBY reserve management is the lack of a proper reporting system between the core system and the new data warehouse application. Under reserve management practices, three main departments are required: The Front Office, the Middle Office, and the Back Office.

The Front Office is responsible for carrying out day-to-day analysis, transactions, and management of funding, risk, cash, and liquidity. These responsibilities require real-time reporting and a modern database to manage transactions and monitor foreign exchange risk.

The Data Warehouse Project transforms row/operational data into useful information for business analysis, which is done by extracting the data from the core system of the CBY into the DWH to help in future planning and business analysis. The most critical issue is to ensure that data extracted from the core system are credible for the required analysis, which must be tested manually. The best way to achieve this is by building pilot applications using Microsoft Excel at this stage and run verifications with the core system data before pushing the installation for the real DWH. A data warehouse is not a product that can be bought; it needs to be tailor-designed specifically to the CBY requirements and will be faster and more accurate than the core operating system.

To implement the DWH, it is important to take into consideration two vital issues: data quality (making sure of the data and readiness of the core system) and checking the requirements of the Reserve Management Department, which will be briefly mentioned below so that the setup will be designed and implemented as required.

The first step is to start collecting business requirement information via interviews with the senior management and staff of the Reserve Management Department. Intensive involvement with staff will be necessary to cover all requirements needed before building the pilot applications in anticipation of the DWH system.

The second step is the core system check for credibility, which is vital to implementing the DWH. A chart of accounts should be mapped and verified in extensive detail to avoid any reporting errors. System integrity and core application compatibility should also be checked to ensure data backup and extraction are done correctly in preparation for the new system. Reports generated from the system should also be checked for accuracy, and operations analysis should be further checked to see how data are being uploaded and entered into the system along with the update frequency.

To achieve these objectives, it is important to build out pilot applications, mainly in Microsoft Excel, to ensure that all data are clean and accurate. To effectively mitigate FX risks, the Front Office must be able to monitor outstanding trading balances vis-à-vis established limits and related policies, utilizing reports that provide a real-time profit and loss picture, along with value-at-risk information. Reporting information covering key items, including the daily blotter, profit, and loss tracking, counterparty limits, and the value at risk for the outstanding position, will require in-depth testing of the data extracted from the system credibility depends on very high accuracy levels. In this regard, if accounts are not correctly mapped, the Front Office will not receive correct balances for FX transactions, adversely impacting their capacity to take corrective actions to mitigate the risk of any potential exposure. Testing of core pilot applications will help establish the basis for an accurate data collection system, supporting accurate planning and decision-making activities.

Interest-rate-related reports such as the borrowing & placement report, cash flow sheet, and capital markets portfolio are extremely important and must be accurate. Reports should be viewed every day before the opening of a business to give a clear idea of what the liquidity would be for the day and the coming period and provide accurate net interest income and expense figures for the portfolio and actions needed to be taken. Ensuring data accuracy will help generate liquidity gap reports that will help mitigate interest rate risks, make accurate interest rate shock tests, and the duration report for the fixed-income portfolio.

Checking the efficiency and credibility of the core system will take time, depending on the particular issue at hand. In some instances, it might consume an entire day of the team's time to arrive at the correct balance, owing to the outdated CBY core system, and this testing needs to be carried out repeatedly during the day. It may even require the team to test the output after every transaction, an action that is difficult to do on the data warehouse system. The reports mentioned above cover the most basic requirements of the CBY Reserve Management Department; if accurate data are generated, all new reports will be easily created and built on the new DWH system.

Applying the data warehouse structure when the testing process is done would optimize business processes within the CBY, increase operational efficiency, forecast future probabilities and trends, enable senior management to make timely business decisions, and demonstrate the root cause of the reserve.

Work on the following steps progressed significantly in QI for gathering necessary information ahead of implementation:

Action	Activities to be performed	Purpose/Objective/ Outcome
Analyze CBY foreign reserve reporting processes and structure.	Investigate key CBY business processes and needs related to FX management activities.	Help identify reporting needs. Knowledge of business processes provides insight into facts and dimensions.
Analyze the core system of the CBY. Outdated with no manual.	Collect details of the operating system in use. Determines the functionality supported and the reports generated. Also, identify reports the system is not able to generate.	Evaluates the relationship between the core system and DWH. Shortcomings in this relationship can be addressed to improve data quality and help inform future reporting needs.
Check reports that are generated from the core system for each sub-division of the reserve department.	Interact with different user groups of the sub-divisions to understand their work profile, reporting requirements, points of satisfaction, and dissatisfaction with the operational system.	This helps build an understanding of different user types, the issues they cannot address with the existing operating system, and their expectations from the data warehousing solution.
Analyze operational system data structure	Investigate data input forms of the application, physical document formats, database structure of the application to understand which data items are properly maintained.	It helps identify data items that are useful for data warehousing but are missing in the operational system.
Analyze data requirements of the CBY business managers	Interact with business managers to determine the type of queries needed to operate.	Helps inform the design of a DWH and the type of measurements to be maintained.
Identify key business processes to build the required database sheets, using either excel or Microsoft access at this stage.	Interact with different user groups to know what kind of data is important in their division and that needs to be analyzed.	To determine the accuracy of tables and numeric measurements, the CBY conducts.
Identify the update frequency required of these reports.	Assess the required periodicity of reporting requirements.	Help identify real-time data warehousing requirements and frequency of Extraction Transformation and Loading (ETL) execution.

The following are the pilot applications that will be used for core system testing and credibility:

Product	Description	Availability	Requirement
FX Blotter	Keep track of FX positions and risk management.	Now Available	Excel sheet for position keeping and historical transactions
Profit and Loss (P&L) Tracking	Real-time cost of FX positions and P&L Mark-to-Market (MTM)	Now Available	Excel sheet for real-time MTM to show P&L

Product	Description	Availability	Requirement
Limits Sheet	Keep track of counterparty limits availability.	Not Available	Excel sheet for limit monitoring
Capital & Money Market Portfolio	Summary of holdings	Not Available	Keep track of holdings
Borrowings/placements	List of funds borrowed and placed with financial institutions.	Not Available	Excel sheet to keep track and calculate the cost or Portfolio Analysis Tool software
Daily Balance sheet	Shows assets and liabilities, along with balances.	Not Available	Monitor and track assets and liability movements.
Value at Risk for FX position	FX position risk management.	Not Available	Portfolio Analysis Tool software
Cashflow Sheet	Monitor daily, weekly, and monthly cash flow to manage liquidity needs.	Available	Be able to manage liquidity needs. An Excel sheet will be required. Portfolio Analysis Tool software needed.
Daily Exchange rate	Set the daily exchange rate for all the CBY sectors.	Now Available	Excel Sheet for daily upload and distribution.
Income statement	Shows daily, weekly, and monthly P&L	Not Available	System Report

The Middle Office oversees the risk management, research, and compliance departments. Risk analysts and managers in this department work closely with the Front Office team to share information on asset classes and financial markets. The Middle Office also manages compliance risk- ensuring bank practices are consistent with legislation and industry standards. For proper risk monitoring and control, the Middle Office requires access to the Front Office's database to identify potential risks, breaches in limits, and other risk control issues.

Product	Description	Availability	Requirement
Liquidity Gap	Maturity or repricing mismatch between assets and liabilities. Specifically where more assets are maturing or repricing in a given period than liabilities.	Not Available	Excel sheet or Portfolio Analysis Tool software will be required to monitor the Gap.
Duration for Fixed-Income Holdings	Expresses the sensitivity of the bond price to changes in income	Not Available	Excel sheet to measure the bond sensitivity or Portfolio Analysis Tool software
Interest Rate Shock reports	MTM based on 5, 50, 100 basis points (bps) shift in the term structure	Not Available	Excel sheet showing the effect of interest rate movement or Portfolio Analysis Tool software

Product	Description	Availability	Requirement
Net Open Positions and limit utilization	FX Position Monitoring for breaches	Not Available	Excel sheet to monitor the real-time position for breaches and keep historical movement or Portfolio Analysis Tool software
Capital Market Summary	Summary of holdings	Not Available	Sheet with all holding showing also historical holdings or Portfolio Analysis Tool software
Capital Market Operations	Gain/Stop Loss Trigger Status (Daily). Portfolio Status an MTM	Not Available	MTM excel sheet for a fixed income portfolio
Value at Risk (VAR) for FX position	Measures and quantifies the level of financial risk	Not Available	Excel sheet to calculate VAR or Portfolio Analysis Tool software
Value at Risk for Capital Market Portfolio	Measures and quantifies the level of financial risk	Not Available	Excel/system generated sheet to calculate VAR
Foreign Reserve level	Shows the level of reserves and its historical movement.	Not Available	System generated report plus excel database for a historical movement

The Back Office administers and supports the Front Office. The primary responsibility of the Back Office is to confirm, verify, settle, and account for transactions. These responsibilities require an inter-connected database to prepare a daily funding sheet, outgoing/incoming transfers, check to clear, and monitor any transaction in the CBY NOSTRO accounts.

Outstanding balances of NOSTRO accounts are another issue. Currently, no report can show outstanding real-time balances. While an account mapping was recently done by the Team (and balances appear to be accurate), this mapping is still in process.

Product	Description	Availability	Requirement
Funding sheet	Reports all cash flow from all the CBY operations departments	Not Available	An excel sheet that would track daily and projected cash flow for three weeks ahead
Nostro & Vostro accounts sheet	Keep real-time track of balances and historical account movement	Not Available	An excel sheet/core system report that would keep the historical movement of those accounts.

Other areas under the reserve management function that require database and core system reporting are shown below:

Product	Description	Availability	Requirement
LOC (Letters of Credit)	Track, approve, and keep a database for all transactions	Basic	A fully automated sheet that supports all tasks.
Financial Institutions	Keep track of all limits available and how often changed	Not available	Sheet to keep track of limits, history, and requests

Product	Description	Availability	Requirement
Intervention committee	Market intervention to support the Riyal	Not available	Monitor, track, calculate P&L for the intervention process
External debt management	Keep track of historical and future payments	Basic	Cash flow sheet along with DMFAS system

IMPLEMENTING THE DWH/DATABASE

By building and implementing the above-mentioned database and processes, the Team can begin to implement the other major components of the data warehouse project. Specifically, after verifying CBY requirements and building key products outlined above, the following table describes the next steps required to start the longer-term data warehouse project.

Step	Description
Feasibility	The financial costs (hardware, software, and peopleware), expected advantage, and a project plan for a data warehousing project must be clearly outlined and understood by all.
Specify Requirements & Analysis	Determine business objectives using the account mapping excel sheets of historical data.
Requirements	Core System & user servers or cloud. Once the hardware and software have been selected, they will need to be integrated across servers, storage methods, and user software tools.
Design	Collect and analyze information, identify core business processes from earlier discussions with the CBY team.
Implement	The project should incorporate flexibility into the data system so that changes may be made to the DWH if necessary.
Test	Testing generated reports by the DWH.
Skills &Train	Assess the skill sets of the CBY team to determine whether they are adequate in the data integration and modeling areas, whether they are adequately trained on new technologies and approaches, and have worked on similar projects (both in domain and scale). Determine as well if the CBY has team leads that are capable of mentoring and guiding less skilled staff?
Maintain	Schedule maintenance requirements every quarter.

FEASIBILITY ANALYSIS ELEMENTS

COSTS

The core costs of data warehousing are relatively simple to estimate. They include the costs of associated hardware, software, and personnel expenses (both in-house and consultants). The following is a list of typical cost categories:

Hardware	• Disk storage • Processor • Network
Software	• Extraction, transformation, and loading software

	• Database management software • Metadata software • End-user data access tools
Personnel	• IT staff (e.g., database administrators, data modelers) • Business and end-user personnel • Consultants

BENEFITS

The major benefit categories include:

Datamart consolidation	• Reduction of multiple decision support platforms • Hardware and software cost savings • Operational efficiencies
Time savings	• Less time spent by IT personnel downloading data for users • Less time spent by IT personnel writing queries for users • Less time spent locating data • Less time spent by analysts responding to requests for information
More and better information	• A DWH can systematically maintain historical data. • Users' ability to analyze data in new ways • Ability to think of the business in new ways
Personnel savings	• Redeployment of IT personnel • Faster company growth without adding personnel • Redeployment of operational personnel to higher-value-producing activities
Improved decision making	• Decisions based on facts rather than intuition • Faster decision making • Ability to analyze alternatives better • Ability to identify and act on problems better
Business process improvement	• Redesign of jobs • Procurement savings • Shorter business cycles • Ability to identify and correct problems with business processes • A DWH will make it easier to monitor and control the security and safety of the data.
Support for strategic business objectives	• Faster response to changing market conditions • Increased market share • Improved speed to market with new products • Supply chain integration
Master Database	• All reporting would be based on a single database rather than on individual repositories of data.

	• The ability to combine data from all the other databases in the environment; effectively, the DWH becomes the master source for all users to obtain data. • Having a single master database, a report writer avoids needing to master multiple databases or merge/match datasets and accounts.

ECONOMIC RECOVERY & LIVELIHOODS PROGRAM (ERLP) IN YEMEN

ANNEX 7

FX MANAGEMENT PROTOCOLS

March 2021

Prepared for the United States Agency for International Development, USAID Order #
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USAID/Yemen - Economic Recovery & Livelihoods Program (ERLP)

The Pragma Corporation, 116 East Broad Street, Falls Church, VA 22046

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FX EXCHANGE MANAGEMENT PROTOCOLS

Foreign exchange risk is the exposure that the CBY would have to the potential movement of foreign exchange rates. Therefore, the main objective of foreign exchange management is to mitigate the risk of price fluctuation, especially if the exposure is in a currency other than the base currency. Therefore, this kind of risk has to be managed properly. The CBY should have a clear strategy for foreign exchange risk management to alleviate any price that negatively impacts profitability and asset-liability valuation.

Foreign exchange risks occur either from a currency mismatch in assets and liabilities subject to floating exchange rates or a mismatch in currency cash flow, leaving the CBY under currency risk until the closeout of the related positions.

Therefore, an effective policy with a clear strategy and objectives would support building a suitable risk management policy to ensure business objectives are met, and risk has been covered. Such policies should mainly cover limits and a clear definition of controls and trading authorities.

Foreign exchange risk limits are being set depending on the counterparty risk profile. Those limits are renewed on an annual basis. Moreover, The CBY exposure of foreign exchange that arises from foreign currency operation should not exceed or breach the set limit for each currency. Those limits will help ensure that the composition of the on-balance sheet and off-balance sheet and the asset-liability side are within the limits set.

The foreign exchange risk management procedures should be well controlled. The accounting, front office system, and Middle office should be strong to be able to monitor positions, exposures, and profit & loss. Moreover, reconciliation for the daily position and trades should be well controlled, backed up by the segregation of duties with a well-trained and experienced audit team.

Typical controls	Controls for Front Office environment	Controls for spreadsheets and manual systems environment
Dealers are trained and authorized to execute deals.	Onsite training with the CBY correspondence	
All personnel should be properly trained for risk aversion and have a background in financial markets.	ACI dealing certificate at a minimum.	Authority levels Discussion with the investment committee and HR
All employee references should be properly checked.	For trading background and reputation.	
Employees sign an ethics policy certification when joining CBY reserve management.	To be committed and aware of all trading codes and ethics.	
Operations, Middle Office, and Audit staff should be well trained.	ACI and risk management courses and certification.	Able to use spreadsheets since

Settlement risk

The risk-on settlement day that one party pays funds or delivers security to fulfill its side of the contractual agreement, but the counterparty fails to pay or deliver. The risk is that the organization delivers but does not receive the agreed-upon benefit or consideration. In this situation, the principal amount will be at risk. This risk may be greater if there was an adverse price fluctuation between the contract price and the market price.

Permitted Products

The CBY reserve management Front Office shall only transact assets that have been previously approved as per the reserve management investment policy.

Risk Appetite

Market and Liquidity Risk limits set in the reserve management investment policy are approved by the Board of Directors. Such limits are being controlled and monitored by the Middle Office and the Head of Risk.

Adherence to Market and Liquidity Risk Limits

It is the responsibility of the Head of Front Office to ensure that all foreign exchange activity is within the market and liquidity risk limit structure. The consequences of all dealing activity should be considered by the front office staff before and not after deal execution.

Reporting of Limit Breaches

Any actual or potential breaches of market or liquidity risk limits should be communicated to the Head of Risk by the Middle Office as soon as they become evident.

MIDDLE OFFICE

The role of the Middle Office is to monitor, control, and report all activities executed by the staff in both the Front Office and the Back Office (Treasury Operations).

RESPONSIBILITIES

MARKET AND CREDIT RISK LIMITS - BREACH REPORTS

TYPE OF REPORTS:

• Counterparty Limit	• Country Limit
• FX Daylight Position Limit	• FX Overnight Position Limit
• Stop/Loss Limits	• Mismatch Limits (Gap Report)
• Liquidity Limits	• Overnight FX Position Revaluation

SPECIFIC POLICIES

1. The Limit Beach Report should be prepared daily, showing counterparty credit limits that have been exceeded compared to their market risk limits, twice a day.

2. The Limit Breach Report must be signed by the Local financial institutions head for and the Risk Manager for the market risk limits. The head of the Front Office must also sign all these reports to indicate that proper oversight is maintained.

3. A report containing breaches should be populated at the end of each business day by the risk management department and send to the head of the front office for comments and clarification.

OPERATIONAL PROCEDURES

RESPONSIBILITY	ACTION
Control Officer	For the end-of-day reports, Settlements and verify all relative trades have been booked into the Front Office system and the core systems. Verify that Settlements were performed properly. Generate a system report (front or core) **Examine** limit breaches, reporting duplication, double-counting, and mismatches. **Investigate** limits breaches clarification by the Front Office. Document all findings and feedback. **Pass** regulate the breach by the Risk Manager by having his signatures on the 'Limit Breach' report relative to the counterparty's credit limits. For market risk limits, **obtain** the Head of Front Office and the Risk Manager's signatures on the relative report **File** the report. Monthly Reports should be provided to the Deputy Governor by the Head of Risk at the end of each month.

PROFIT AND LOSS REPORTS

TYPE OF REPORTS:

- FX Blotter
- Money Market Daily Profit and Loss
- Capital Market Holdings Report
- Derivatives Profit and Loss

SPECIFIC POLICIES:

1. The Middle Office should provide the Front Office with the profit and loss (P&L) reports daily. These reports should also be produced by the front office and risk management systems, and the core system for:
    - Each desk within the Front Office
    - Each product
    - Each trader

2. A copy must be signed by the trader and then distributed to the head of the relative desk and the Head of the Front Office for the signature to indicate agreement with the P&L reflected in the reports.

3. The end-of-day report should have all the transactions done through the day at an agreed cut of time. The settlement team would then confirm those transactions

4. An exception report listing all trades not included in the Daily P&L Reports must be in place. The Middle Office investigates these trades to ensure that they are corrected or deleted.

5. The Middle Office is responsible for reconciling the P&L reports produced by the Front Office system with those produced by the General Ledger System to ensure that reporting of all Front Office products P&L is complete and valid.

6. Daily, all P&L reports must be scrutinized by the Middle Office in light of the previous day's reports to ensure that reported P&L appears reasonable concerning the daily run rate by currency.

7. All large or abnormal fluctuations should be investigated and an explanation appended to the cover sheet of the P&L report if necessary. The investment committee should decide, from time to time, what is defined as 'large' or 'anomalous' fluctuations.

OPERATIONAL PROCEDURES:

RESPONSIBILITY	**ACTION**
Control Officer	At the end of each business day, the officer contacts the settlements team and check that all relative trades have been booked into the Front Office and core systems. Also, he ensures that Settlements have performed all liquidations for the day, i.e., all deals maturing on the day have been closed. Open the relative file in the Front Office system Print out the report and scrutinize each report in light of previous days' reports to ensure that reported P&L appears reasonable with the daily run rate by currency. Investigate any significant discrepancies between the reports Pass the report to the trader, Head of Desk, and the Head of Front Office to obtain their signatures on the relative P&L reports File the report **Reconciliation** At the start of the business day, receive the relative P&L reports from the Accounting (Finance) Department produced by the General Ledger System, core system. Reconcile the general ledger P&L reports with the similar reports produced by the Front Office system at the end of the previous business day Investigate any discrepancies between the reports File the Front Office P&L reports and pass core system reports to the Accounting (Finance) Department

DAILY RATES

TYPE OF REPORTS:

- Revaluation Rates
- Off-Market Rates

SPECIFIC POLICIES:

1. At the end of the business day, the Middle Office extracts daily rates and forwards a hard copy of the sheet to the IT department that uploads the rates into the core system.

2. The Middle Office should obtain the rates for the revaluation process from the front-end Trading System. The Financial Control Unit would then approve the rates to be used for the revaluation process.

3. The Front Office system should be used to monitor off-market rates for any discrepancies.

4. All large or abnormal rate discrepancies used during business hours and the market rates should be investigated immediately with the Front Office and then reported to the Risk manager. Risk Management Division must decide what is defined as 'large' or 'anomalous' discrepancies.

OPERATIONAL PROCEDURES:

RESPONSIBILITY	**ACTION**
Control Officer	**Revaluation Rates** At the end of the business day, prepare two copies from the relative report using a Front Office system and other approved sources like Reuters or Bloomberg. Pass a copy to the concerned department to enter the rates into the core system. File the second copy **Off-Market Rates** Open the relative file in the Front Office system. Print out the report to investigate any significant discrepancies between the reports with the Front Office. Pass the report to the head of the desk and the Head of Front Office, and the Financial Controller to obtain their signatures on the report File the report

KEY SEQUENCING

Task	Report Name	Timing	Source of Information
Market & Credit Risk Monitoring	• Limit Breach Reports • Gap Report	All Reports: • By 9:30 Local time • By 12:30 Local time • End of day	All Reports produced by The Front Office system
Profit & Loss Monitoring	• FX Blotter • Money Market Daily Profit and Loss • Capital Market Holdings Report • Derivatives Profit and Loss	• Front Office system reports, by the end of day • Core system reports, by the start of the day	All Reports produced by the Front Office system and core system.
Daily Rates	• Revaluation Rates Report • Price checker Report	By the end of the day	For the revaluation rates report, Front Office system, Reuters, and Bloomberg. For the pricing checker report, the Front Office system
Operational Risk	• Unapproved Trades Report • Unauthorized Traders Report • Trade Amendment Cancellation Report • Holdover Trades Report • Unrecorded Trades Report • Mismatched Confirmations • Unmatched Confirmations • Outgoing Confirmation Errors • Unapproved Advanced Payments Report	• On case by case basis • On case by case basis • By the end of the business day • By the end of the business day • On case by case basis • By the end of the business day • At least weekly • By the end of the business day • On case by case basis	All Reports produced by the Back Office Systems, which are Front Office system, core system, and Swift

Liquidity

CBY should maintain sufficient levels of foreign currency reserves to comply with liquidity requirements. Liquidity requirements should be revised periodically for this purpose.

Transactions

The sale and exchange of foreign currency, and the settlement of foreign currency obligations, is undertaken within an authorized counterparty with limits assigned. All transactions should be recorded for accounting, monitoring, and audit purposes. Off-premises transactions are, as a preventive measure, not allowed under any circumstances. Traders perform their functions ethically and professionally, following a code of conduct signed on joining the department.

Monitoring

CBY maintains a database containing up-to-date information on foreign exchange rates to track and statistically analyze their movements over time for risk modeling purposes.

Reconciliation

Reconciliation of accounts is undertaken diligently and with due consideration for the need to provide timely information concerning the CBY's exposed positions and outstanding balances in all its accounts both locally and abroad.

Risk Associated with Foreign Exchange Operations

The key risk areas are broadly categorized as follows:

1. **Credit Risk**-is defined as the failure of an obligor or counterparty to perform as agreed following exchange/settlement arrangements on an agreed/value date.
2. **Liquidity Risk**- is defined as the inability to meet obligations in any currency when due, owing to either lack of funds by either of the contracting parties or to systemic problems in markets that make it difficult to purchase the amounts needed for settlement. Accordingly, there is a close relationship between liquidity and credit risks.
3. **Market Risk-** is defined as the potential adverse change in the current economic value of a position (i.e., its market value) due to changes in the associated underlying market risk factors.

Market Risk terminology

1. Market Factor- It is defined as a Variable (i.e., a market price or rates, such as spot FX rate or an interest rate) that can impact the economic valuation of a contractual position. It is a part of the market risk management activity to identify relevant market factors and to consider them in the establishment of the independent market risk limit frameworks.
2. Factor's Sensitivity- It is defined as the change in the value of a position for a sharp change in a market risk factor.
3. Volatility & Correlation-This refers to factors used to statistically calculate the relationship (correlation) between market variables and volatility by which one variable influences another. This is used in portfolio risk measurements, such as value-at-risk (VaR).
4. Value-at-Risk (VaR)- VaR is a statistical tool used to estimate the potential decline in the value of a position or a portfolio, under normal market conditions, within a defined confidence level over a specific period.

Operational Risk

This refers to foreign exchange breach protocols

1. The risk of losses arising from the failure of internal controls and procedures or information systems; and
2. The risk, and adverse consequences, of non-compliance with anti-money laundering statutes and policies.

JOB DESCRIPTIONS

SAMPLE JOB DESCRIPTION: ROLE - HEAD OF DIVISION

Department:

Division:

Section/Team:

Reports to:

JOB SUMMARY:

The main role of the job to manage and supervise all activities related to the FXRM and manage all operational procedures and supervise the daily activities.

Major Duties/Responsibilities	Key Performance Indicators
1. Supervise all division activities and manage all work performed in accordance with instructions and work procedures.	On regular basis
2. Review all activities on a daily basis and direct employees, follow up on their work achievements according to instructions and procedures.	On daily basis
3. Proposes action plan and implementation procedures for the clearance division and evaluate any work deviations, provide recommendations for solutions,	On regular basis
4. Review daily, annual reports on work performed according to roles, procedures, and action plans and provide recommendations to top management.	On regular basis
5. Conduct annual studies for the division including, developing the system and programs that belong to the division and recommend improvements to meet best practices.	Accurate transaction
6. Conduct annual meetings with employees to discuss and evaluate work process and work performance, business continuity, and evaluate the strengths and weaknesses in the performance.	Accurate procedures
7. Recommend training development for division staff to enhance their skills and competencies to meet work requirements.	Accurate procedures
8. Approve all fees and fines belongs to clearance members.	Accurate clearance procedures
9. Monitor the clearance system to make sure the procedures are aligned with CBY policies and instructions.	On regular basis
10. Follow up with counterparts with key exposures.	Accurate transactions
11. Follow up work procedures including, account restrictions on banks and other institutions.	Accurate entries

WORKS CONTACTS

Internal Contacts: conduct internal contacts as needed with colleagues in the department and other departments within the CBY to request information and discuss issues related to work.

External Contacts: conduct external contacts as needed with banks and branches to request information and negotiate issues related to work.

MINIMUM RELATED EDUCATION, EXPERIENCE, AND SKILLS

ACADEMIC:

Recognized degree in business, accounting, or other relevant fields. CFA, CAIA, and/or Masters Degree from a reputable organization.

RELATED WORK EXPERIENCE (TYPE AND YEARS)

Past experience of at least eight years experience in a related role and should possess sound analytical skills.

TECHNICAL SKILLS:

- Familiarity with trading systems and treasury systems
- Working knowledge of MS Office suite, Outlook.
- Behavioral skills – good interpersonal and communication skills – both written and verbal Knowledge & Experience:
- Should have an expert level understanding of work and judgment.
- Should have experience in banking & treasury operations.
- Strong organizational and administrative skills

INTERPERSONAL SKILLS:

Effective communication and speaking presence in both Arabic and English

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APPROVALS

[Name] **[Human Resource Manager]**	**[Name]**

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SAMPLE JOB DESCRIPTION: ROLE - BACK OFFICE MANAGER

REPORTING RELATIONSHIPS:

Department: FX reserve management
Division:
Section/Team:
Reports to: Investment Committee and Reserves Division Head

JOB SUMMARY:

The CBY should have in place a number of operational controls to minimize financial and reputational damage from fraud. These include the separation of front- and back-office operations. The back office serves several vital functions. It records and confirms trades transacted by the front office and provides the internal control mechanism of segregation of duties. The checks and balances provided by the back-office function help management supervise the trading activities conducted by the front office. A properly functioning back office will help ensure the integrity of the financial institution and minimize operations, settlement, and legal risks.

Major Duties/Responsibilities	Key Performance Indicators
1. Execution and confirmation of Investment deposits contracted by the front office using SWIFT messages. The deposits could be new or rollover and interest transfers.	
2. Prepare the CBY reserve management balances statement (assets and liabilities) in the USD.	
3. Establish connections with new correspondent banks to open and close new accounts or just for keeping records	
4. During phase one in the Back office reform, reporting and completing the working flow cycle shall be introduced. The reports will cover the basic activities carries out by the BO at this stage activities.	
5. Execution and confirmation of FX buying and selling transactions using SWIF messages that the front office has committed.	
6. This includes procedures and guides for foreign accounts funding's and transfers	
7. This includes procedures of how to account for interest accrued on credit facilities granted to the government.	
8. Procedures to check and reconcile corresponding bank accounts.	
9. Establish relationships with new and old corresponding banks for the sake of maintaining and opening new accounts or sometimes closing the outstanding accounts	
10. Execution of accounting entries for investment transaction for both CM and MM as well as account management costs and interest payments	
11. Accounting entries for portfolio evaluations and other internationally half portfolio	
12. Carrying out special settlement procedures for investment activities on PAT and match with the core system.	

MINIMUM RELATED EDUCATION, EXPERIENCE, AND SKILLS

ACADEMIC:

Recognized degree in Finance, Accounting, or other relevant fields, CFA, CAIA or equivalent &/or masters from a reputable institution.

RELATED WORK EXPERIENCE (TYPE AND YEARS)

Past experience of at least seven years experience in a financial management or Treasury-related role should possess sound analytical skills.

TECHNICAL SKILLS:

- Familiarity with treasury trading systems and technologies.
- Working knowledge of MS Office suite, Outlook.
- Behavioral skills – good interpersonal and communication skills – both written and verbal Knowledge & Experience:
- Should have an expert level understanding of risks in Treasury products and their measurement
- Should have experience in handling Treasury Middle Office function for multiple asset classes
- Proven track record in business partnering with other business functions and working closely with finance and other professionals within the business
- Strong organizational and administrative skills

INTERPERSONAL SKILLS:

Effective communication and speaking presence in both Arabic and English

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APPROVALS

[Name] **[Human Resource Manager]**	**[Name]**

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SAMPLE JOB DESCRIPTION: ROLE – MIDDLE OFFICE ANALYST

REPORTING RELATIONSHIPS:

Department: FX Reserves Management
Division:
Section/Team:
Reports to: Investment committee and Reserve manager

JOB SUMMARY:

Also, part of the Foreign Reserve and Investment management is a middle office function, known as Dealing Support. This unit is responsible for measuring risk and return and for maintaining front office systems. Valuation, performance, and risk information are provided to the front office operation and senior management daily. In other words, the middle office acts as a policeman to ensure the proper implementation of the written procedures. The middle office reports directly and independently to the corresponding to the Assistant Governor overseeing the division.

Major Duties/Responsibilities	Key Performance Indicators
A. Quantitative and Credit Analysis unit:	
1. Analysis market data and conditions and evaluate the alternative investment strategies.	
2. Design and apply templates for measuring risk allocation and financial instrument performance at the strategic and tactical level as Strategic Asset Allocation (SAA) and Tactical Asset Allocation (TAA).	
3. Organize and prepare work papers, reports, and studies for investment committee weekly meetings.	
4. Monitoring external correspondent bank changes that deal with the CBY.	
5. Reviewing reports published by credit rating agencies.	
6. Regularly retrieve and review financial data from external Correspondent banks.	
7. Develop scientific and practical methodologies to establish credit limits for Correspondent banks.	
8. Maintain and update correspondent banks database.	
9. Credit limits review.	
B. Performance and Risk analysis and measurement unit:	
10. Prepare reports and performance analyses for each portfolio.	
11. Measure performance and analysis outputs.	
12. Verify financial instrument prices on a daily basis. And extract and generate performance reports from electronic systems and send them to the relevant departments.	
13. Analysis and compare the investment portfolio performance with the benchmark. And define surplus source and documenting any deviation from the performance index.	
14. Collect financial instrument prices and the indices synthesis from Bloomberg terminal or Thomson Reuters and insert any new bond to the indices.	
15. Monitor credit limits and report and document breaches	

Major Duties/Responsibilities	Key Performance Indicators
C. Cash unit	
16. Collect and maintain data for developing the analysis of actual and forecasted cash flow. Also, exchange information with other related units at the CBY to provide information about the cash flow.	
17. Monitoring and tracking cash payments based on reserve account changes.	
18. Develop an effective methodology for forecasting the cash flow	
19. Supply data and analytical supports for foreign reserve tranching.	

MINIMUM RELATED EDUCATION, EXPERIENCE, AND SKILLS

ACADEMIC:

BA degree is either finance or accounting. CFA, CAIA, or equivalent and/or masters from a reputable institution.

RELATED WORK EXPERIENCE (TYPE AND YEARS)

Minimum 7 years for seniors of experience in banking with exposure to Middle Office / Market Risk / Treasury.

TECHNICAL SKILLS:

- Familiarity with treasury systems.
- Should possess sound analytical skills.
- Should have good software proficiency – MS Office and any Core banking / Treasury / Risk system
- Behavioral skills – good interpersonal and communication skills – both written and verbal Knowledge & Experience:
- Should have an expert level understanding of risks in Treasury products and their measurement
- Should have experience in handling Treasury Middle Office function for multiple asset classes
- Professional qualification/certification (CA, CFA, FRM, or MBA in Finance) would be an added advantage.

INTERPERSONAL SKILLS:

- Effective communication and speaking presence in both Arabic and English
- The ability to read, write analyses and communicate reports. And to attend meetings for the investment committee and with the manager of the reserve management and the staff.

APPROVALS

[Name]
[Human Resource Manager]

[Name]

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SAMPLE JOB DESCRIPTION: ROLE – FX RESERVE MANAGER

REPORTING RELATIONSHIPS:

Department: FX Reserve Management
Division:
Section/Team:
Reports to: Head of Reserves Management

JOB SUMMARY:

Reserve Manager –with prior experience with central bank's reserve management or banking and corporate treasury management. The overall task is to oversee and supervise the daily activities of the foreign reserve and investment's units and ensure that investment policy is effectively followed. The manager has direct control over some reserve and investment management departments like the front office and the middle office. However, some departments are not controlled by the reserve and Investment manager, but it is directly related to the department like the back-office management for segregation of duties.

Major Duties/Responsibilities	Key Performance Indicators
1. Supervising, directing, and evaluating the investment of safe financial instruments as treasury bonds of main manufacturing countries, deposits in banks, and international financial institutions in main currencies. Also, directing the allocation process of the investment portfolio to mitigate risks.	
2. Supervising, directing, and evaluating the forested cash flow for the short-terms and contacting the Correspondent banks to provide required liquidity in cases need to cover urgent dues for the CBY.	
3. Monitoring money market and FX prices as well as urgent changes in the market. Consecutively directing research and periodic reports by all means, including emails sent from correspondent banks, account managers entitled by the CBY.	
4. Rebalancing the investment portfolio by choosing the bonds they think need to be sold (bought). While the actual process of asking for prices and the transactions execution according to the investment policy shall be done by the internal portfolio manager (or the front-office chief).	
5. Reading and studying the market state and insight and understanding the general direction and the attitude of the market in all marker aspects and economic sectors. Thus, provide alternative investment strategies.	
6. Preparing working papers, reports, and studies for investment committee meetings.	
7. Monitoring developments in external parties and correspondent banks that deal with the CBY by periodically reviewing their credit rating.	
8. Supervising and directing performance reposts and analysis for each portfolio in the light of the adopted criteria and the general performance of the foreign reserve of the CBY.	
9. Providing recommendations and studies for the CBY high management to modify the Yemeni Real (YER) exchange rate in light of fiscal local, and international situations.	

Major Duties/Responsibilities	Key Performance Indicators
10. Supervising the implementation of the investment policy in coordination with the investment committee. Hence, the governor shall assign the Investment committee members, missions, and authorities.	
11. Supervising, directing, and evaluating on opening deposits account or suggesting opening current accounts with different banks outside the country after approval from the high management.	
12. Responsible for depositing and allocating the reserve over the Correspondent banks in light of the relevant policies.	
13. The reserve and investment manager shall invest in the reserve as instructed by the investment committee after getting approval from Foreign Banking Operation Sector Deputy, while the transaction shall be presented to them later on.	
14. Responsible for the annual performance evaluation for the department staff.	
15. Define the tasks and work procedures for the foreign reserve and investment staff and ensure it's the effective execution of the tasks and duties and measure the application of defined and approved procedures.	
16. Responsible for other duties inaugurated by the Foreign Banking Operation Sector Deputy.	

MINIMUM RELATED EDUCATION, EXPERIENCE, AND SKILLS

ACADEMIC:

CFA, CAIA &/or Master degree is preferred in either finance, accounting, or economy

RELATED WORK EXPERIENCE (TYPE AND YEARS)

At least ten years experience in reserve and investment management or corporate or banking treasury management or portfolio management

TECHNICAL SKILLS:

Working knowledge of treasury systems, MS Office suite, analytics software.

INTERPERSONAL SKILLS:

Effective communication and speaking presence in both Arabic and English

APPROVALS

[Name]
[Human Resource Manager]

[Name]

****

ECONOMIC RECOVERY & LIVELIHOODS PROGRAM (ERLP) - YEMEN

ANNEX 8

FX RESERVES MANAGEMENT BEST PRACTICES TRAINING PROGRAM

January 2021

Prepared for the United States Agency for International Development, USAID Order # 72027920M00001

USAID/Yemen - Economic Recovery & Livelihoods Program (ERLP)

The Pragma Corporation, 116 East Broad Street, Falls Church, VA 22046

I. PROGRAM OBJECTIVES

The objective of this tailored program on FX Reserves Management Best Practices for the CBY is to provide capacity building on the pillars of modern portfolio management and enable the formulation of and pilot application of a CBY reserves management policy. The program proposed herein is tailored to the needs of the CBY based on the diagnostic study conducted under the YESS program and recent insights provided by the CBY teams, including updates on recent changes in Yemeni market dynamics on the ground.

II. PROGRAM STRUCTURE

The program is structured in two parts: (i) Modern Portfolio Management & Global Capital Markets and (ii) FX Reserves Management CBY Applications, with the latter to be based on Yemen-specific data inputs provided by the CBY. It is proposed to run for two days in January 2020 and two days in February 2020, distributed across nine sessions, as per the below plan:

i. MODERN PORTFOLIO MANAGEMENT & GLOBAL CAPITAL MARKETS (JANUARY 2020)

DAY I

Session One: Global Capital Markets Structural Update

Session Two: Modern Portfolio Management & Diversification

Session Three: Basic Features of Fixed Income Securities & Valuation

DAY II

Session Four: Valuation of Fixed Income Instruments & QE

Session Five: Fixed Income Portfolio Management & Risk Analysis

ii. FX RESERVES MANAGEMENT CBY APPLICATIONS (FEBRUARY 2020)

DAY I

Session Six: Fixed Income Advanced Risk Analytics & Performance Attribution

Session Seven: Reserves Management Policy & Instruments Global Best Practice

DAY II

Session Eight: Advanced Portfolio Analytics Application to Yemen

Session Nine: Reserves Management Policy Applications to Yemen

III. PROGRAM LEARNING OUTCOMES

At the end of the program, participants are expected to understand, calculate, synthesize and apply modern portfolio management analytics, techniques, and policies to the practice of reserves management at the CBY. Applications will be both in line with international best practices and having a Yemeni-focused implementation strategy.

IV. LIST OF SUGGESTED BACKGROUND READINGS

TEXTBOOKS:

Fabozzi, F. J., 2013, "Bond Markets, Analysis and Strategies." 8th ed. Boston: Pearson Higher Education

Bodie, Kane, Marcus, 2011, "Investments & Portfolio Management." 9th ed. McGraw-Hill Education.

OTHER SUGGESTED REFERENCES:

Aliber, Robert Z., 2011, "Financial Turbulence and International Investment," BIS Papers No 58, in 'Portfolio and Risk Management for Central Banks and Sovereign Wealth Funds,' Proceedings of a Joint Conference Organised by the BIS, ECB and World Bank, Basel.

Allen, William, Gabriele Galati, Richhild Moessner, and William Nelson, 2017, "Central Bank Swap Lines and CIP Deviations," De Nederlandsche Bank Working Paper No. 566, Amsterdam.

Ben-Bassat, A (1984): "Reserve-currency diversification and the substitution account," Princeton Studies in International Finance no 53, Princeton University, International Finance Section.

Bernadell, C, J Coche, FX Diebold and S Manganelli (eds) (2004): Risk management for central bank foreign reserves, European Central Bank.

Borio, C (2008): "The financial turmoil: a preliminary assessment and some policy considerations," BIS Working Papers, no 251, March, and forthcoming in the Bank of Spain's Financial Stability Report.

Borio, C, J Ebbesen, G Galati and A Heath (2008): "FX reserve management: elements of a framework," BIS Papers, no 38, March.

Cardon, P and J Coche (2004): "Strategic foreign allocation for foreign exchange reserves," in C Bernadell, J Coche, FX Diebold and S Manganelli (eds), Risk management for central bank foreign reserves, European Central Bank.

Eichengreen, B and DJ Mathieson (2000): "The currency composition of international reserves: retrospect and prospect," IMF Working Paper no 00/131, 1 July.

El-Erian, M (2007): "Asset-liability management in emerging economies," in J Johnson-Calari and M Rietveld (eds), Sovereign Wealth Management, Central Banking Publications, London.

Jeanne, O and R Rancière (2006): "The optimal level of international reserves for emerging market countries: formulas and applications," IMF Working Paper no 6/229, October.

Knight, MDK (2006): "International reserve diversification and disclosure," BIS Speeches, 8 September.

Roger, S (1993): "The management of foreign exchange reserves," BIS Economic Papers,

no 38, July.

Wooldridge, PD (2006): "The changing composition of official reserves," BIS Quarterly Review, September, pp 25–28.

ECONOMIC RECOVERY & LIVELIHOODS PROGRAM (ERLP) - YEMEN

ANNEX 9

A WHITE PAPER TO ESTABLISH A NATIONAL PAYMENTS COUNCIL IN YEMEN

March 2021

Prepared for the United States Agency for International Development, USAID Order # 72027920M00001

USAID/Yemen - Economic Recovery & Livelihoods Program (ERLP)
The Pragma Corporation, 116 East Broad Street, Falls Church, VA 22046

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1. EXECUTIVE SUMMARY

Global interest in developing Financial Market Infrastructure (FMI) is increasing. In large measure, this is because of the linkage between developing and upgrading these systems and their contribution to controlling systemic risks and enhancing financial stability on the one hand, and their role in facilitating access to finance and financial services on the other.

Within this context, many Central Banks have established national committees or Councils for payments. These serve as forums for consultation and coordination with Payment Service Providers (PSPs) on a wide range of industry-related issues and opportunities.

The challenges facing the development of the payment infrastructure in Yemen are many and varied. One of the most prominent is the multiplicity of government agencies, authorities, and private sector entities concerned with payment and settlement systems. These include the Central Bank, the Ministry of Finance, banks, payment service providers, telecommunications companies, and other supervisory bodies. These entities should coordinate their efforts to deliver maximum beneficial impact on FMIs in Yemen, though they currently lack an effective vehicle for doing so.

A further benefit of establishing a National Payment Council in Yemen is that it will contribute to the success of the CBY's oversight function on payment and settlement systems and instruments. This key aspect of CBY's mandate requires a great deal of coordination with the payments industry; due to the continuous growth in non-bank private institutions and companies that provide payment services or are linked to payment and settlement systems. A further layer of complexity is added by the substantial and rapid development of electronic payment instruments provided through non-bank institutions.

Yemen should expect to see a growing number of banks and financial institutions using interbank payments and settlements systems in the near future. Also, the current PSPs can be reasonably expected to processing increasing numbers of transactions. Such an increase in both the volume and value of electronic payments will further intensify the need for coordination between all parties. In such a rapidly evolving environment, the coordination that can be provided by the National Payments Council can contribute decisively to the process of reforming and enhancing the payment system in Yemen. The Council will also facilitate the success of CBY's reform plans and strategies and enhance the active participation of all stakeholders in developing and implementing these strategies within the framework of a comprehensive national vision for payments system development in Yemen. Numerous experiences worldwide have demonstrated that the existence of a National Payments Council has greatly helped in the success of coordination between all financial sector parties and contributed to the efficient and inclusive development of efficient and time-effective customer-oriented payment systems.

Finally, it should be mentioned that the international principles for financial market infrastructure issued by the Bank for International Settlements (BIS) and the International Organization of Securities Commissions IOSCO, and approved by G20, mandate close cooperation and coordination between Central Banks, market regulators, other relevant authorities and operator in the financial intermediation markets. There is no doubt that Central Banks worldwide are focused on the sound implementation of these basic principles in shaping the regulatory and operational infrastructure for their payment systems. Hence, the existence of a National Payments Council represents a foundational institutional mechanism through which the Central Bank of Yemen can lead consensus-building efforts that will lay the groundwork for establishing a modern payments system. This can promote the inclusive provision of cost-effective intermediation services for the Yemeni people.

In light of the foregoing, this paper sets out some of the key benefits of the Council, its potential activities & objectives, and a potential organizational structure for its operations.

It also lays out a framework for next-stage work on the development of the following operational guidelines required for the full operationalization of the NPC once approved:

i. Rules of the NPC;
ii. A resolution for the board of CBY to establish the NPC;
iii. The NPC's initial strategic plan.

2. VALUE OF THE COUNCIL

The National Payment Council (NPC) will allow the payment industry to pursue more efficient cooperation on key strategic issues and collaborate with CBY to shape the future of payment in Yemen.

Countries such as Singapore and Egypt have established NPCs to realize their vision of an e-payments society. This includes facilitating the development of seamless payments, supporting the introduction and rollout of unified point-of-sale terminals at merchants, and introducing new payments legislation to safeguard consumer interests and facilitate innovative payment solutions.

The Payments Council will formally bring together both the providers and users of payment services in Yemen. It will encourage collaboration within the payments industry, promote interoperability among e-payments solutions, develop strategies to drive the pervasive adoption of e-payments, and advise and make recommendations to CBY on payments-related policies. It will relieve CBY of the burden of trying to handle all this work on its own.

The establishment of an NPC is supported by BIS in their consultative document "BIS Principals for Banking Supervision," December 2011. The establishment of a National Payments Council in Yemen would meet these guidelines and align CBY with BIS principles.

The Payments Council will be actively involved in evaluating the adequacy of payments systems, promoting the use of e-payments via an education program, and helping to chart the way forward for e-payments in Yemen.

The Council will be effectively positioned to share stakeholder perspectives with the CBY effectively and address important market developments and concerns, including strategic priorities being developed/advanced by CBY. This is anticipated to result in stronger strategic and regulatory performance for both sectoral service providers and end-users. Furthermore, a Payments Council will be in a position to offer practical support to CBY in the implementation of major National payments initiatives – including a Mobile Financial Services (MFS) project - by coordinating the industry's efforts and aligning them to CBY's directives and guidance.

3. KEY ACTIVITIES OF THE COUNCIL

The National Payments Council would be a new body playing a major role in providing advice and guidance to CBY and the industry. It will support the development of sound, safe and effective payment systems; and would contribute to the development and upgrading the infrastructure in the financial and banking sector. This, in turn, will contribute to strengthening the role of this sector in supporting economic development and establishing the foundations for financial stability. In this regard, the Council would undertake consultation, dialogue, cooperation, and coordination activities between the various concerned parties. It would also work on forming and recommending CBY medium and long-term strategies related to payment and settlement systems to help CBY develop its operations, tools, efficiency, and safety.

It is important in this regard for CBY to define the limits of the powers, responsibilities, and activities associated with the work of the Council. The Council's work should be focused on consultative activities that contribute to developing policies and strategies for FMIs. It should not interfere directly in the functional and technical details related to the development of instruments, services, payments, and settlements. An additional important role of the Council will be to develop a culture of competition, innovation, and creativity in the field of electronic payments.

The Payments Council would not have absolute or binding powers over participating members and would work to achieve its goals by forming a consensus for its initiatives.

4. OBJECTIVES

The Payments Council's primary objectives would include the following:

a. to lead the future development of cooperative payment services in Yemen in a manner designed to ensure that the payment system as a whole meets the needs of payment service providers, users, and the wider economy, by:
   i. facilitating competition, development, and innovation within the payments sector; and,
   ii. identifying and sponsoring innovative solutions, including (where appropriate) new clearance schemes, to promptly and efficiently meet the current and future needs of consumers, businesses, and other users.

b. to ensure that the payment system is open, accountable, and transparent and that:
   i. any restrictions on access to payment schemes are fair, reasonable, and non-discriminatory;
   ii. the governance of payment schemes is transparent and open to public scrutiny; and,
   iii. any proposals for major innovations/changes in the conduct of payment schemes are subject to rigorous and transparent evaluation, comparing the costs and benefits to the banking industry and society.

c. to ensure that the operational efficiency, effectiveness, and integrity of payment services in Yemen meet best practice standards.

5. INSTITUTIONAL FRAMEWORK AND GOVERNANCE

5.1 PAYMENT COMMUNITY

The National payments Council should represent all parties and stakeholders concerned with the processes, systems, and instruments related to the clearing and settlement of payments and securities in the country. This community may include, for instance, the following:

1. The Central Bank.
2. The Ministry of Finance/Treasury.
3. The banks.
4. The non-bank financial institutions.

5. The Clearinghouses.
6. Payment service providers.
7. The Central Securities Depository(s).
8. The broker/dealers.
9. Telecommunications institutions or entities.
10. Independent professionals and experts.
11. The end-users.
12. Other regulators (e.g., antitrust authorities), etc.

Given the large number of entities involved in Yemen's FMI community, the Council members may be limited to representatives of those institutions that directly provide payment services. Other bodies and institutions may participate in the working groups related to the Council's activities. It is important that the composition of the Council is considered and that its members should be senior officials and directors involved in payment, clearing, and settlement issues.

5.2 NATIONAL PAYMENT COUNCIL PROPOSED STRUCTURE

To ensure that the Council can work effectively in developing industry proposals/positions and achieve its principal objectives, its size should be relatively limited, though appropriately diverse. In this regard, the Council should be able to rationally represent the different viewpoints of participants in the Yemeni payment system. To achieve this, board members should be drawn from a number of different categories of interested parties in a transparent manner.

1. The following is proposed as the Council's initial structure:
   1.1 Governor of the Central Bank of Yemen (or his deputy) as Chairman.
   1.2 Director of Payments Systems Department as Vice President.
   1.3 One representative from each of the five largest banks for the first term.[1]
   1.4 The Association of Banks in Yemen to represent other banks.[2]
   1.5 Two representatives from other financial institutions (local and/or international) were selected by CBY.
   1.6 Two representatives from the 1st licensed payment service provider selected by CBY.
   1.7 An independent/academic public figure with a rich financial background with interest and activities related to payments activities.
2. Licensed telecommunications entities may attend all Board meetings as observers without voting rights.
3. Relevant authorities - such as but not limited to the Ministry of Finance and Ministry of Telecommunication - should be invited to meetings as observers on a when/as-needed basis.
4. Council board members (except for those appointed by the aforementioned banks to ensure the continuity of the Council's work in a coordinated manner) will have a two-year term,

[1] Note: All banks must be represented in terms of market share, their nationality, and their mode of operation (Commercial – Islamic).
[2] Note: The member bank shall be represented by the general manager or his deputy at least.

subject to the discretion on the part of the Central Bank to varying some terms by six months if that is considered to be in the best interests of the Council. This provision may be invoked if/as needed to avoid disruption in Council activities.

5. The Deputy Director of the Payments Systems department at the CBY should serve as the NPC's secretary.

6. MEETING AND DECISIONS

1. The Council would decide during its first meeting of each year the number, dates, and location of periodic sessions for the remainder of that calendar year.
2. The Council would meet outside its session dates upon an invitation from the Council chairman or his deputy or upon a written request submitted by one-third of the Council members to the Council chairman or his deputy (in his absence).
3. Any member of the board would be able to choose one of the specialized technicians from among the bank's employees he represents to accompany him to attend any of the meetings.
4. A quorum of two-thirds of sitting members will be required to meet the Council to be considered valid. The attendance of the Chairman of the Council or his representative is also required for that purpose.
5. The Board should record its decisions in the form of recommendations that are referred to the CBY, who will take appropriate measures to effectuate these recommendations as it deems appropriate.
6. Decisions require consensus among the board members.
7. Every board member who has a direct or indirect personal commercial interest in a subject presented to the Council must disclose his interest and withdraw from the session and have no right to participate when discussions of this topic occur.

7. COMMITTEES, WORKING GROUPS, AND REPORTS

1. A permanent technical committee - "Technical Committee for the National Payments System" - should be formed, headed by the Director of the Payment Systems Department at the Central Bank of Yemen. It will be composed of relevant staff from the Central Bank and commercial banks. It will conduct needed technical studies on payments system development issues and submit related recommendations to the Council for consideration.
2. The Council may choose and assign workgroups and project teams to carry out new tasks and projects. It will take appropriate decisions based on their recommendations and supervise their implementation.
3. The Council may seek the assistance of experts when necessary and invite them to Council meetings for purposes of hearing their views on a specific relevant topic (the experts will not have voting rights on any decisions being rendered).
4. The Board should draw up periodic reports on the issues of payment systems development, which should be considered a relevant reference point by CBY for purposes of development and implementation of any major payment system reforms on an advisory basis.

8. RECOMMENDATION

An appropriately formed and governed National Payments Council will be an asset to the payments industry in Yemen, and this report recommends that CBY starts the process of establishing one.

The process would include:

1. CBY and its advisory team consulting with members of the Payment Industry on the establishment of an NPC.
2. CBY and its advisory team preparing a draft constitution or "rules" for Council.
3. These rules establish appropriately broad, representative participation in the Council, which avoids disproportionate influence by any individual or small group of interested parties.
4. CBY and its advisory team preparing the NPC's first strategic plan.
5. CBY and its advisory team preparing a resolution for CBY's Board to approve the establishment of the NPC.

CBY's approval to proceed as set out above is hereby requested.

Central Bank of Yemen

Quarterly Bulletin
Economic and Monetary Developments

Issue No.1 (December 2020)

Quarterly Bulletin – December 2020

Central Bank of Yemen

Quarterly Bulletin
Economic and Monetary Developments

Issue No. 1 (December 2020)

Issued by

General Department of Research and Statistics

Central Bank of Yemen

Head Office - Aden

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Foreword

The Central Bank of Yemen (CBY) is pleased to announce the launch of its new Quarterly Economic Bulletin (December 2020). The Bulletin provides readers and researchers interested in economic and monetary developments in the Republic of Yemen with insights on major developments across all sectors. It also directly enhances financial regulatory oversight processes in alignment with Basel II and Basel III pillars.

This first issue reviews the most important economic and monetary developments in the Yemeni economy during 2019 and the first nine months of 2020. While the ongoing war, which began in 2015, has resulted in a prolonged contractionary phase, the Yemeni economy witnessed positive growth rates in 2018 and 2019 due to a significant surge in oil production. The Bulletin covers key developments across four areas and explains their implications for the Yemeni economy. The first chapter discusses global and local macroeconomic developments. The second elaborates recent monetary and banking sector developments, and the third and fourth chapters focus on public finances and external sector developments, respectively.

The COVID-19 outbreak in early 2020 and the subsequent lockdowns and collapse in oil prices badly disrupted global markets and created severe recessionary pressures internationally. Oil price drops and the spread of the pandemic have had significant adverse effects on Yemen's economic activity, with real GDP estimated to have contracted by approx.. 5% in 2020. In addition to these shocks, the January 2020 ban on newly printed banknotes in the region under Houthi control has limited the government's ability to pay salaries in this area and complicated monetary policy operations. This has increased the cost of financial transactions, reduced market transparency, and resulted in widening exchange rate gaps between Aden and Sanaa — to as much as 30% in some instances.

Inflationary pressures, triggered primarily by inflation on imports, remained strong. As around 90% of Yemen's basic, consumable goods come from overseas, this poses an ongoing macroeconomic management challenge. In line with the legal mandate of the CBY, as stated in Article 5 of the Central Bank Law, a concerted and sustained monetary policy response directed toward stabilizing prices and providing sufficient liquidity is needed to maintain adequate funding of the public and private sector needs. The monetary control measures adopted this past year represent an important initial step in this direction.

Yemen's fiscal position improved during the last two years as a result of increased oil exports, although these still remain far below pre-war levels. Expenditure rationalization and fiscal deficit financing, however, are still critical issues to be addressed through close coordination among all government entities. A small portion of the fiscal deficit was financed through domestic market borrowing, while the lion's share of the fiscal deficit was funded largely through CBY monetary emissions (which were controlled overall in a manner that helped keep inflation under control). Enhanced public finance management, development of domestic debt capital markets, and financial deepening remain top reform priorities anticipated in the coming years.

Yemen's external position has continued to deteriorate since the outset of the war, which has led to a significant weakening of the value of the local currency. The only exception to this trend was in 2019 when drawdowns from a June 2018 Saudi deposit of USD 2 billion helped stabilize the Rial exchange rate. Reviving economic activity, boosting export earnings, building up a buffer of foreign reserves, and working to further limit debt monetization are the main pillars of our macro-financial policy over the upcoming period.

The high level of commitment and quality output from Bank management and staff, which facilitated smooth and efficient functioning of the CBY, merit deep appreciation. We could not have published this Bulletin had other departments not contributed their efforts and data.

It is also acknowledged with great appreciation that the CBY has since 2019 received expert technical support from the USAID- and UKAid-financed Pragma advisory team in helping improve core functions and building institutional capacity through the implementation of a detailed, time-framed action plan covering core functional areas of Central Bank operations.

God bless,

Ahmed Obaid Al-Fadhli

Governor

Executive Summary

The Yemeni economy witnessed improvements in 2019, following the deep contraction since the start of the war in 2015. This contraction was primarily attributed to declines in the hydrocarbon sector, which makes up a significant share of domestic output. In CY 2020, the dual shocks of the COVID-19 pandemic and a steep decline in oil prices severely affected economic activity. As it will take time for the global economy to return to normal, oil prices will remain low, affecting hydrocarbon sector activities in the Republic of Yemen.

The prolongation of the COVID-19 pandemic and stagnation in oil prices could further complicate the macroeconomic outlook for 2021. The International Monetary Fund (IMF) estimated in October that the world economy had contracted by 4.4% in 2020; the contraction may have worsened as a result of the pandemic intensifying in the final months of the year. Yemen's GDP is estimated to have contracted by about 5% in 2020, with marginal positive growth of 0.5% forecast in 2021.

Inflationary conditions worsened somewhat over the last three quarters of CY 2020 after relative stability in 2019. Significant devaluation of the Rial, the lack of foreign reserve buffers at the Central Bank of Yemen (CBY), growing uncertainty, and increased dollarization all contributed to inflationary pressures. Market surveys indicate that inflation exceeded 17% in September 2020, while the annual rate of inflation was estimated at around 25-30%, up from an estimated average rate of 10% in 2019. Inflation is projected to remain slightly above 20% in 2021.

As set forth in the CBY Law No. (14) of 2000, achieving price stability is the primary objective of monetary policy. In this regard, the CBY is proactively steering monetary policy in a manner designed to maintain macro-financial stability while also providing adequate financing to ensure critical public financing needs are met, operating, in concert with relevant government institutions and with the assistance of the international community.

The principal objective of monetary policy is to attain low and stable inflation. To this end, the Central Bank attaches great importance to control the money supply. This is being achieved through building a robust framework for monetary targeting and moving toward the adoption of a comprehensive toolkit of indirect and market-based instruments for liquidity management.

Against this backdrop, monetary aggregates expanded at a reasonably stable clip during 2019 and the last three quarters of CY 2020. Broad money grew by 8.5% in 2019, down from a growth rate of 28.5% in 2018. Reserve money (base money) increased by 11.5% in 2019, down from a growth rate of 28.3% in 2018. Narrow money (M1) increased by 10.6% in 2019, compared to a 33.1% growth rate the previous year. Currency in circulation, which accounted for more than 80% of narrow money and constitutes the main driver of M1 growth, grew by 10.6% in 2019, down from a growth rate of 36.6% the prior year. In 2019, monetary expansion was contained through a 59.1% decline in net foreign assets. With respect to domestic assets, the overall net growth rate declined to 17.8% in 2019, from 24.1% in 2018. Net claims on the government grew 16.8% in 2019, constituting a major source of overall monetary growth.

The CBY managed to design a robust monetary program for 2020, the first since its relocation to Aden. This helped rationalize money supply parameters and limited high inflationary pressures stemming from monetary creation. Within this overall framework, broad money (M2) increased by 12.9% over the first three quarters of CY 2020, significantly outperforming the annual target of 22.2%. Base money grew by 11.3% during the same period, also significantly outperforming the annual target of 20.6%. Currency issuance increased by 12% over the first three quarters of the year, far below the annual target of 25.5%. The program has proved to be highly effective, outperforming all benchmarks set in the annual monetary program.

The deterioration of macroeconomic conditions since 2015 has severely affected the government's fiscal position. In consequence, fiscal consolidation through further expenditure rationalization and boosting of the revenue base (from both hydrocarbon and non-hydrocarbon activities) remains a key macroeconomic policy priority.

The overall balance of the budget indicated a deficit of 7.9% of GDP (703 billion Rials) in 2019, an increase from 5.6% of GDP (909 billion Rials) in 2018. The ratio of total revenues and grants to public expenditures reached 57% in 2019, which is quite low by international standards but significantly, though marginally, better than the 45% ratio in 2018. Investment expenditures made up a negligible share, and the majority of expenditures were utilized to cover current spending needs. Expenditure containment efforts were intensified in 2020, with the importance of such efforts further underscored by declining oil revenues due to the COVID-19 crisis. Overall, the fiscal deficit is estimated to have reached 480.8 billion Rials in the first three quarters of CY 2020.

Fiscal discipline, rationalizing public expenditures, improving efficiency, and identifying non-inflationary means to finance government expenditures are all urgently important to promote sustainable fiscal consolidation and macroeconomic stability.

The external sector has continued to deteriorate due to the fall in oil exports and modest declines in remittances. At the same time, dependence on humanitarian aid has continued to increase significantly. The balance of goods and services registered a deficit of USD 10.7 billion in 2019, an increase from USD 8.8 billion in 2018. The current account balance doubled to -4.4% of GDP over the 2018 figure of -2.2% of GDP. The recent volatility in international oil prices dramatically highlights the importance of reducing Yemen's dependence on the petroleum sector.

The current account deficit continues to require significant levels of external financing. In 2019, the deficit was financed in part through a net capital account outflow of USD 78 million and a drawdown of official foreign reserves in the amount of USD 1.065 billion, significantly larger than the USD 586 million drawdowns 2018. A similar trend is projected for 2020, with the balance of payments gap estimated at approximately USD 1.080 billion. This trend is being driven largely by the negative impact of COVID-19 on remittances, which are estimated to have declined by more than 20% in 2020. This further illustrates the contractionary impact of the crisis on economic activity and employment in the region. Its effect is particularly evident with respect to the Kingdom of Saudi Arabia, which accounts for around 60% of Yemeni diaspora remittances. It has dramatically amplified the adverse economic impact of the ongoing oil crisis and the recent dampening of foreign aid inflows in 2020 due to the pandemic.

External imbalances will need to be addressed through increased export earnings and progress toward economic diversification to restore macroeconomic stability. In addition, it is hoped that recent improvements in political economy and security stability conditions may help attract additional capital inflows as well over time.

CHAPTER I: Current Situation and Economic Prospects

I.1 World Economic Growth

The IMF October 2020 World Economic Outlook report projected global growth to fall by 4.4% in 2020, largely due to the effects of the COVID-19 pandemic. While this would be a significant decline from the 2.8% global economic growth of 2019, it is an improvement over the June 2020 projection that growth would contract by 4.9% and reflects better-than-expected GDP results in the second quarter (especially in advanced economies) and continued strong recovery in the third quarter.

Global growth is now expected to reach 5.2% in 2021, thanks to the anticipated recovery from the pandemic; the projected 2021 global GDP would represent a 0.6% increase over the pre-pandemic level of 2019. Nonetheless, the economic effects of the COVID-19 crisis will continue to reverberate in the near term, with growth projections showing large negative gaps in output and a rise in unemployment rates in 2020 and 2021 for advanced, developing, and emerging market economies alike.

The economic disruptions caused by the pandemic were reflected in a slump in demand that led to weak price growth and deflation across the globe. The average inflation rate in advanced economies decreased to 1.5% in 2019 from 2% in 2018 and decreased slightly, to 4.7% in 2019 from 4.8% in 2018, emerging markets and developing economies (Table I.1). While considerable uncertainty surrounds future inflation projections, inflation is expected to remain low due to relatively weak aggregate demand.

Table I.1 Global Growth Forecast

		Projections	
	2019	**2020**	**2021**
Global growth rate, %	2.8	-4.4	5.2
Growth rate (advanced economies), %	1.7	-5.8	3.9
Growth rate (emerging and developing economies), %	3.7	-3.3	6.0
Growth rate (Middle East and Central Asia), %	1.4	-4.1	3.0
Growth Rate (Middle East and North Africa), %	0.8	-5.0	3.2
Growth rate (low-income developing countries), %	5.3	-1.2	4.9

Source: IMF, *World Economic Report*, October 2020.

I.2 Growth and Price Developments in Yemen

After contracting by an estimated 42% from 2014 to 2017, economic activity in Yemen began to improve in 2018, reflecting growth sparked primarily by the hydrocarbon industry. Real GDP increased by an estimated 2.1% in 2019, up from 0.8% in 2018, despite slowing global growth and tightening financial conditions.

Yemen's 2019 growth was accompanied by a decrease in the inflation rate, from the 20% to 30% range recorded over 2015- 2018 to approximately 10%. Inflation in Yemen has traditionally been the result of both imported inflation (increases in import prices due to currency depreciation) and local factors, but monetary policy adopted in 2019 has thus far been successful in controlling the money supply in a manner consistent with the pace of economic activity. In addition, the Rial exchange rate was stabilized after an exchange rate crisis in the fall of 2018 depreciated the Rial to unprecedented levels. International and domestic economic conditions further eased inflation in 2019, including slow growth in international prices for non-oil commodities and modest domestic demand that both played a role in cutting inflation in Yemen by more than half.

The economic picture changed for Yemen in 2020, as it did for the rest of the world. But as an oil-dependent state, Yemen has experienced a significant negative impact from declining oil prices and the COVID-19 pandemic. Its GDP is expected to have contracted by 5% in 2020, before regaining some ground and growing by only 0.5% in 2021.

These deteriorating economic conditions also cut short any positive movement in the inflation rate, which increased in the first three quarters of 2020 to levels not seen since the 2018 crisis. Indications are that inflation exceeded 20% in September 2020 and that the annual rate of inflation will remain above the 20% level in 2021. Consumers would bear the direct and immediate costs, given that roughly 90% of Yemen's total consumable goods are imported. A survey of the monthly food price index indicated an average price of 42,500 Yemeni Rials in July 2020, an increase from 36,122 Rials in July 2019 and 36,281 Rials in December 2019 — a year-over-year increase of 17%. It will likely remain above the 20% level in 2021.

CHAPTER II: Monetary Developments

This chapter analyzes the development of base money and broad money aggregates in Yemen during 2019 and the first three quarters of 2020 to understand linkages between money and other macroeconomic variables. To this end, it reviews the CBY balance sheet in detail, the commercial and Islamic banking survey, and the overall monetary survey.

The monetary survey was developed in 2019 as part of technical assistance, capacity building, and institutional strengthening support provided by USAID to the CBY. Putting this tool at the disposal of the CBY is an important accomplishment. The CBY needs accurate reporting to make proper monetary decisions. By providing a thorough picture of the financial system, the monetary survey will help CBY formulate and implement effective monetary policy.

The year 2020 brought positive news regarding Yemen's monetary policy. Money supply growth was contained in 2019 as well as during the first three quarters of 2020, following the CBY's adoption of a more appropriate monetary policy based on a monetary programming framework designed to ensure adequate economic absorptive capacity and money creation. The impact of this ongoing reform has become evident in the significant decline of the currency issuance growth rate: It fell to 12.4% in 2019 and 12% over the last three quarters of 2020, down from rates of 35.8% and 37.6% in 2018 and 2017, respectively. Similarly, the money supply (broad money or M2) rose by 8.5% in 2019 and 12.9% during the last three quarters of 2020.

II.1 Central Bank Balance Sheet

The CBY balance sheet reached 6,558.8 billion Rials in 2019, an increase of 808.4-billion Rials 14.1% year over year. The balance sheet continued to grow during the last three quarters of 2020, reaching 7,021.6 billion Rials, reflecting an increase of 462.9 billion Rials or 7.1% year over year (Table II.1).

- **Assets**

The Central Bank's net foreign assets decreased in 2019 by 505.2 billion Rials or 519.2% over the previous year. They stood at -602.5 billion Rials (USD 1.585 billion). As of September 2020, net foreign assets had decreased further by 334.6 billion Rials year over year, or 56.9%, or -922.8 billion Rials (USD 2.307 billion). There are two main causes for these trends. First, Yemen's ongoing political instability has slowed oil exports. Second, the steep decline in international oil prices lessened the value of Yemen's exports and deprived the country of its primary source of foreign assets.

As a result, total external assets as a share of total assets fell to 5.3% in September 2020 from 9.6% in 2019, and net claims on the government increased in 2019 by 689.4 billion Rials, or 19.6% year over year, to reach 4,201 billion Rials. As of September 2020, net claims had increased by 774.3 billion Rials year over year, or 18.8%, to 4,883.1 billion Rials.

- **Liabilities**

Base money (defined as the sum of currency outside banks, currency in bank vaults, and bank reserves with the central bank) increased by 358.8 billion Rials in 2019, or 11.5%, to reach 3,484 billion Rials. Through September 2020, base money had increased by 590.1 billion Rials or 18% year over year. This continued the upward trend of 2019 when base money increased by 12.4%. Likewise, reserves increased in 2019 and over the first nine months of 2020 by 39.9 billion Rials and 85.6 billion Rials, or 7.2% and 15.5, respectively, year over year.

Table II.1 Central Bank of Yemen Balance Sheet (Rials billion)

	Dec-18	Sep-19	Dec-19	Sep-20
Foreign assets	**1,133.6**	**642.7**	**628.4**	**372.5**
Domestic assets	**4,616.7**	**5,450.9**	**5,930.4**	**6,649.1**
Government	3,756.3	4,353.1	4,532.3	5,229.6
Public enterprises	309.5	309.5	309.5	309.5
Banks				
Fixed and other assets	550.9	1,088.6	1,088.6	1,110.1
Assets=Liabilities	**5,750.3**	**6,093.6**	**6,558.8**	**7,021.7**
Base money	**3,125.9**	**3,287.3**	**3,484.7**	**3,877.4**
Banknotes issued	2,571.6	2,734.2	2,890.5	3,238.7
Banks	554.3	553.1	594.2	638.7
Government	243.6	244.3	330.6	346.5
Public enterprises	105.4	111.2	48.5	76.1
Social Security Fund	58.7	58.7	58.7	58.7
Certificates of deposit				
Foreign liabilities	**1,230.9**	**1,230.9**	**1,230.9**	**1,295.3**
Other liabilities	**985.9**	**1,161.2**	**1,405.4**	**1,367.7**
Capital and reserves	110.9	265.7	517.5	507.8
Revaluation account	164.6	217.2	214.4	250.7
Special drawing rights	83.8	83.8	83.8	93.5
Other liabilities	626.6	594.5	589.7	515.7

Source: CBY.

II.2 Consolidated Balance Sheet of Commercial and Islamic Banks

The consolidated balance sheet of commercial and Islamic banks totaled 4,408.9 billion Rials in 2019, an increase of 374.7 billion Rials, or 9.3%, over 2018 (Table II.2).

- **Assets**

Net foreign assets of commercial and Islamic banks increased by 113.4 billion Rials, or 14.9%, in 2019, to reach 873.2 billion Rials, due primarily to a 56.7-billion Rial (13.7%) year-over-year rise in correspondent accounts and a 30.6-billion Rial (45.8% year-over-year) rise in foreign exchange. Total foreign assets rose year over year in the amount of 87.2 billion Rials, or 10.6%, to 909.8 billion Rials, equal to 20.6% of total assets in 2019.

In 2019, bank reserves (cash in vaults and account balances at the CBY) increased by 60.9 billion Rials (8.5% year over year) to 774.5 billion Rials. This increase resulted from a 61.5-billion Rial (85.6%) year-over-year increase in local currency held and a 0.6-billion Rial (0.1% year-over-year) decrease in reserves held with the Central Bank. Bank reserves as a share of total deposits equaled 23.8% in 2019.

Bank loans and advances increased by 161.6 billion Rials, or 7.5%, in 2019 to reach 2,319.4 billion Rials. The bulk of this increase came from loans provided to the government (primarily represented in treasury bills and Islamic Sukuk), which increased by 166 billion Rials (10.7% year over year). Advances for public institutions also increased moderately, by 0.6 billion Rials, or 3% year over year. In contrast, advances for the private sector decreased by 5 billion Rials (0.9%) year over year in 2019.

- **Liabilities**

In 2019, total deposits grew by 222 billion Rials 7.3%, year over year to a total of 3,249.3 billion Rials. This increase reflected growth across several types of deposit categories: Year over year, demand deposits increased by 11.9%, earmarked deposits by 8%, savings deposits by 7.8%, and time deposits by 5.4%.

The net amount of other liabilities rose by 113.9 billion Rials (18.8%) during 2019 to reach 718.8 billion Rials. This rise reflected, in part, an increase in the capital and reserves of commercial and Islamic banks, which grew by 42.6 billion Rials (14.6%) year over year in 2019, reaching 333.7 billion Rials.

- **Deposits**

CBY 2019 data indicate increases in deposits across the board. Time deposits rose by 41.7 billion Rials (5.4% year over year) to reach 815.7 billion Rials or 25.1% of total deposits; demand deposits increased by 69.7 billion Rials (11.9% year over year) to 653.9 billion Rials, accounting for 20.1% of total deposits; saving accounts increased by 18.9 billion Rials (7.8% year over year) to total 260.9 billion Rials, equal to 8% of total deposits; and earmarked deposits increased by 3.7 billion Rials (8% year over year), making up 1.5% of total deposits. Government deposits increased by 9.8 billion Rials (43% year over year), equaling 1% of total 2019 deposits.

Likewise, deposits denominated in foreign currency recorded an increase of 78.1 billion Rials, or 5.8%, in 2019, to a total of 1,436.1 billion Rials and a 44.2% share of total deposits. This increase reflected stronger overall economic performance in 2019.

- **Loans and advances**

The banking sector granted 578.2 billion Rials in credits to the private sector in 2019, a decline of 5 billion Rials, or 0.9%, from 2018 levels.

Credit to the private sector in 2019 was distributed as follows:

- Short-term loans and advances accounted for 18% of total non-government credit
- Medium- and long-term loans accounted for 3% of total non-government credit
- Investments from Islamic banks represented 26% of total non-government credit

- Non-performing loans represented 53% of total non-government credit.

Table II.2- Commercial and Islamic Banks Balance Sheet (Rials billion)

	Dec-18	Dec-19
Assets	**4,034.2**	**4,408.9**
Foreign assets	**822.6**	**909.8**
Foreign currency	66.8	97.4
Banks abroad	414.3	470.9
Non-residents	0.0	0.0
Foreign investment	341.5	341.5
Reserves	**713.6**	**774.5**
Local currency	71.8	133.3
Deposits with the CBY	641.8	641.2
Gross loans and advances	**2,157.8**	**2,319.4**
Government	1,554.8	1,720.8
Public enterprises	19.8	20.4
Private sector	583.2	578.2
Certificates of deposit	**1.0**	**1.0**
Treasury bills purchased from the CBY	**0.0**	**0.0**
Other assets	**339.2**	**404.2**
Liabilities	**4,034.2**	**4,408.9**
Deposits	**3,027.3**	**3,249.3**
Government	23.0	32.8
Demand	584.1	653.9
Time	774.0	815.7
Saving	242.0	260.9
Foreign currency	1,358.0	1,436.1
Earmarked	46.2	49.9
Foreign liabilities	**62.7**	**36.6**
Banks abroad	59.8	33.6
Non-residents	2.9	3.0
Borrowing from banks	0.0	0.0
Other liabilities	**944.1**	**1,123.0**
Loans from CBY	5.6	13.5
Other liabilities	647.4	775.8
Capital		
Capital and reserves	291.1	333.7

Source: CBY.

II.3 Monetary Survey

A rise in net domestic assets combined with a decline of net foreign assets led to an overall rise in the money supply (M2) to 5,973.7 billion in Rials in 2019, an increase of 469.5 billion in Rials

(8.5%) year over year). Net domestic assets recorded an increase of 861.3 billion Rials (17.8%) year over year, due in large part to the impact of the 845.1-billion Rial (16.8%) year-over-year increase in the government budget; and the 52.4-billion Rial (7%) year-over-year increase in credit granted to the private sector. Net foreign assets decreased by 391.8 billion Rials (59.1%) over the same time period. This decline was attributable to a 505.2-billion Rial drop in foreign assets held by CBY and a 113.4-billion Rial increase in foreign assets held by commercial and Islamic banks.

When analyzing the dynamics of money supply components in 2019, it is worth noting that year over year, M1 increased by 327.1 billion Rials (10.6%), while quasi-money rose by 142.4 billion Rials (5.9%). Taken together, this represents an increase in money across all sectors of the financial system: The rise in narrow money reflected an increase in both currencies in circulation and demand deposits, and the upward trend in quasi-money was due to the increase in time and foreign deposits.

The predominance of currency in circulation, which accounted for 46.2% of the total money supply in 2019, is evidence that Yemen continues to rely heavily on cash as its primary means of financial intermediation. This reflects the ongoing institutional and access constraints characterizing the nation's financial system and generates high costs at both the consumer and institutional levels. In this regard, the overreliance on cash limits intermediation capacity and prevents access to sophisticated payment systems. Table II.3 shows the overall composition of Yemen's money supply.

Table II.3 Decomposition of Broad Money (Rials billion, unless otherwise indicated)

	Dec-18	Dec-19
Broad money (M2)	**5,504.2**	**5,973.7**
Broad money, annual % change	28.5	8.5
Quasi-money	**2,420.2**	**2,562.6**
Quasi-money, annual % change	23.1	5.9
Quasi-money, as % of broad money	44.0	42.9
Foreign currency deposits	**1,358.0**	**1,436.1**
Foreign currency deposits, annual % change	52.5	5.8
Foreign currency deposits, as % of total deposits	45.2	44.6
Narrow money (M1)	**3,084.0**	**3,411.1**
Narrow money, annual % change	33.1	10.6
Narrow money, as % of broad money	56.0	57.1
Demand deposits	**584.2**	**653.9**
Demand deposits, annual% change	20.1	11.9
Demand deposits, as % of broad money	10.6	10.9
Currency in circulation	**2499.8**	**2757.2**
Currency in circulation, annual % change	36.6	10.3
Currency in circulation, as % of broad money	45.4	46.2
Net foreign assets	**662.5**	**270.7**
Net foreign assets, annual % change	74.4	-59.1
Net domestic assets	**4841.7**	**5703.0**

	Dec-18	Dec-19
Net domestic assets, annual % change	24.1	17.8
Net claims on the government	**5044.6**	**5889.7**
Net domestic assets, annual % change	17.7	16.8
Net claims on other economic sectors	**748.5**	**800.9**
Net claims on other economic sectors, annual % change	0.5	7.0
Other items net	**-951.4**	**-987.6**
Other items net, annual % change	-15.3	3.8

Source**:** CBY.

A significant fraction of Yemen's net monetary emissions has been utilized to finance the government deficit. The deficit has spiked in recent years due to the deterioration of oil export revenues alongside persistently high public wages that continue to represent the bulk of government expenditures. It should be noted that drawdowns from the Saudi Letter of Credit deposit, which was utilized to help finance urgently needed imports, helped the CBY bring broad money growth down to 8.5% in 2019 from 28.5% in 2018. At the same time, worsening economic conditions led to moderately larger growth in money supply during the first three quarters of CY 2020.

M2 growth was estimated at 12.9% through the third quarter of 2020, while base money grew by 11.3% over the same period. The Central Bank's initial monetary plan for 2020 projected base and broad money to grow by 20.6% and 22.2%, respectively, consistent with an inflation rate of around 25%. Designed with the technical assistance framework provided by USAID, this 2020 plan was the CBY's first since its relocation to Aden. The plan focused on controlling the money supply in a manner consistent with the real economic needs emanating from both the public and private sectors. Though economic conditions have shifted since its implementation, the plan remains a core part of the CBY strategy moving forward. In the absence of a foreign reserve buffer, strong commitment to the annual monetary plan targets remains the only tool at the disposal of the CBY to attempt to contain inflationary pressures and to stabilize exchange rate movements. The CBY remains committed to its effective implementation.

II.4 Exchange Rate Policy Developments

The exchange rate for the U.S. dollar against the Yemeni Rial reached 591 Rials per dollar at the end of 2019, up from 526 Rials per dollar at the end of 2018. By September 2020, however, the Rial exchange rate crossed the threshold of 850 Rials per dollar. This led to a substantial shortage of foreign currency in the local foreign exchange market that was needed to cover essential goods. Multiple shocks that hit Yemen's economy in early 2020 caused this dramatic depreciation, among them the fall in oil prices, the decline in remittances due to the COVID-19 pandemic, and the depletion of the 2018 Saudi deposit. All of these put serious downward pressures on the exchange rate, rolling back progress made over the previous year.

In response to these downward pressures and the accelerating depreciation of the Rial, the CBY approved a set of short-term measures to help further limit the demand for foreign exchange in the market:

- It adopted a new mechanism for oil derivatives imports financing that requires importers to obtain the approval of the CBY to access foreign exchange resources. Under the new arrangement, importers are required to deposit their daily cash sales in local currency to their accounts in commercial banks, while the CBY provides foreign currency to be utilized to cover imports.
- It set a per-day and per-individual ceiling of 500,000 Yemeni Rials (or the equivalent in foreign currency) for every financial transfer and prohibited the use of foreign currency for payments in the domestic market.
- In cooperation with security agencies and the Public Funds Prosecution, it intensified periodic inspection of all exchange companies and facilities in the liberated governorates.

Nonetheless, these downward pressures on the exchange rate are expected to persist into 2021 due to a projected lack of foreign reserves available to cover the widening gap in the balance of payments. This will continue to affect Yemeni purchasing power, placing stress on consumers and institutions. Due to these challenging economic conditions, it is likely that additional international support in the form of balance of payments assistance will be vital to Yemen's economic health.

II.5 Building a Robust Framework for Conducting Monetary Policy

The main mission of the CBY, as set forth in Law No. (14) of 2000, is to maintain price stability by keeping inflation rates low. In pursuing these objectives, the Central Bank plays a critical role in regulating the country's economic health.

To comply with its legal mandate regarding price stability, the Central Bank began targeting the growth rate of the money supply (broad money) as an intermediate target; base money, controllable by the Central Bank, is used as an operational target. There is a strong analytical foundation for this framework based on empirical estimations conducted by the CBY with the assistance of USAID/Pragma specialists.

It was determined that base money is positively and significantly correlated with inflation, which underscores the strong relationship between the monetization of the government deficit and high inflation. This further suggests that an increase in the money supply has a persistent positive effect on inflation rates. With this in mind, the Central Bank's mission looking ahead will be to smooth variability in the money supply to achieve price stability and provide an adequate volume of monetary resources to support inclusive growth.

The Central Bank of Yemen places great importance on adhering to this monetary targeting framework for monetary policy operations to achieve macroeconomic objectives. Starting in 2020, it specified quantitative targets for broad money and base money during 2020, using the monetary planning framework designed with external technical support, and is closely monitoring their trajectory to keep inflation in check.

Under this framework, the exchange rate will be allowed to adjust gradually, and the current system of multiple exchange rates will be gradually abandoned. Formalized interventions in the foreign exchange market, using a transparent and rules-based auctioning system, will smooth out high exchange rate volatility. In addition, nominal and real exchange rate movements will be considered in designing monetary policies. The exchange rate channel works through the impact of changes in monetary flows on exchange rates and aggregate demand and supply. Any excessive increase in the money supply will normally lead to a depreciation of the exchange rate, which increases the price of imported goods and services and thereby raises domestic prices and inflationary pressures.

Under current macroeconomic conditions and given how prices have soared since 2014, the Central Bank's plan to restore macro-financial stability relies on several indispensable elements: tightening monetary policy and improving monetary impulse transmission to the real sector, efforts to address external imbalances by promoting private sector exports, competitive import substitution activities, and allowing greater exchange rate flexibility while building foreign reserves.

To achieve its monetary policy objectives, the CBY is working on setting up a combination of well-coordinated monetary policy instruments. The market-based toolkit of monetary control instruments will be designed to include open market operations, standing facilities, and a structured reserve requirement system as the main pillars of the monetary policy operational framework.

CHAPTER III: Public Finance

At the end of 2019, Yemen had a public deficit of 703 billion Rials, equal to 5.6% of its GDP. This was a decline from the deficit of 909 billion Rials, or 7.9% of GDP, at the end of 2018. Though economic conditions worsened in 2020, greater attention to controlling public expenditures has led to continued improvement in the budget deficit. Provisional September 2020 figures showed a fiscal deficit of 480.8 billion Rials for the first three quarters of CY 2020, down from a deficit of 753.6 billion Rials over the same period during the previous year.

Yemen's persistently high fiscal deficit must be addressed in the near term by maintaining tight control on spending, given the limited availability of public resources. Moreover, it is critically important to control spending in a manner that is also designed to bring down inflation and contain additional depreciation pressures.

To accomplish these objectives and effectively align public expenditures with available revenues, it will be important to focus clearly on fiscal consolidation. This should include cutting non-essential expenses, reshuffling and prioritizing public spending (in a way that frees funds to be allocated to healthcare spending), and minimizing tax evasion and fraud. Though under the purview of the Ministry of Finance, this process requires coordination across the government. Careful coordination with the CBY will be required to avoid excessive monetary emission-based financing of the public deficit.

III.1 Public Revenues

Total revenues and grants increased by 179 billion Rials (24.1% year over year) in 2019, reaching 922 billion Rials. The increase reflected increases in oil revenues (12 billion Rials), non-oil revenues such as taxes and customs (143 billion Rials), and grants (24 billion Rials). Public revenues totaled 7.3% of GDP in 2019 (Table III.1).

This trend reversed in the first three quarters of 2020, as worsening economic conditions resulted in declining revenues. Public revenues declined sharply 294.6 billion Rials, a drop of 19.2 billion Rials (4.1%) over the same period of the previous year, as the dual shocks of the COVID-19 pandemic and the oil price decline affected the financial performance of Yemen's economy and thus the revenues collected by the government.

- **Oil revenues**

Oil revenues rose to 354 billion Rials in 2019, an increase of 12 billion Rials or 3.5% year over year. They accounted for 38.4% of total public revenues and 2.8% of GDP. In contrast, oil revenues decreased during the first three quarters of 2020 by 64.4 billion Rials, or 27.2%, compared to the same period in 2018, falling to 172.8 billion Rials.

- **Non-oil revenues**

Non-oil revenues rose to 520 billion Rials in 2019, an increase of 143 billion Rials (37.9% year over year). They made up 56.4% of total public revenues and 4.1% of GDP. Over the first three quarters of 2020, non-oil revenues amounted to 265.2 billion Rials, an increase of 16.3% on a year-over-year basis.

The composition and shifts in non-oil revenues were as follows:

- Tax revenues (including customs duties) rose to 338 billion Rials in 2019, a year-over-year increase of 114 billion Rials (50.9%). Tax receipts represented 36.7% of total public revenues and 2.7% of GDP. Tax revenues increased by 53.2 billion Rials in September 2020 compared to the same month in 2019, reaching a total of 203.4 billion Rials or a 35% year-over-year rise.
- Non-tax revenues (which include fees and profit transfers) increased in 2019 by 29 billion Rials (19% year over year) to a total of 182 billion Rials, making up 19.7% of total public revenues and 1.4% of GDP. However, non-tax revenues decreased in September 2020 by 16 billion Rials or 20.6% year over year, falling to 61.8 billion Rials.

Table III.1 Public Revenues and Grants (Rials billion)

	Dec-18	Sep-19	Dec-19	Sep-20
Total revenues and grants	**743**	**465.2**	**922**	**446**
Oil revenues	**342**	**237.2**	**354**	**172.8**
Non-oil revenues	**377**	**228**	**520**	**265.2**
Tax revenues	224	150.2	338	203.4
Other revenues	153	77.8	182	61.8
Grants	**24**	**0**	**48**	**8**

Source: Ministry of Finance.

III.2 Public Expenditures

Public expenditures decreased by 1.6% year over year during the 2018-19 period, falling from 1.652 billion Rials in 2018 to 1,625 billion Rials in 2019 and accounting for 12.9% of GDP. Public expenditures totaled 926.8 billion Rials during the last three quarters of CY 2020, a decline of 292 billion Rials, or 24% year over year (Table III.2.a).

- **Current expenditures**

Current expenditures totaled 1,535 billion Rials in 2019, a year-over-year drop of 20 billion Rials or 1.3%. This decline resulted mainly from a 188-billion Rial (61%) decrease in goods and services expenditures and a 103-billion Rial (26.5%) increase in subsidies and social benefits. Wages and salaries also increased by 33 billion Rials, a 4% year-over-year increase. Current expenditures for the first three quarters of 2020 decreased by 270.8 billion Rials or 23.5% - compared to the same nine-month period of 2019, falling to 880.5 billion Rials.

- **Capital expenditures**

Capital expenditures totaled 90 billion Rials in 2019, a year-over-year decrease of 7 billion Rials or 7.2%. These remained a fairly marginal component of public spending, however, accounting for only 5.5% of overall budget expenditures in 2019. On a year-over-year basis, capital expenditures decreased by 21.2 billion Rials, or 31.4%, over the first nine months of CY 2020, reaching 46.3 billion Rials.

Table III.2.a Public Expenditures (Rials billion)

	Dec-18	Sep-19	Dec-19	Sep-20
Total expenditures	**1,652**	**1,218.8**	**1,625**	**926.8**
Current expenditures	**1,555**	**1,151.3**	**1,535**	**880.5**
Wages and salaries	821	640.5	854	389.3
Goods and services	308	90	120	159.9
Interest payments	8	22.5	30	53.3
Subsidies and transfers	389	369.0	492	259.5
Other expenditures	29	29.3	39	18.5
Capital expenditures	**97**	**67.5**	**90**	**46.3**

Source: Ministry of Finance and CBY.

- **Overall balance**

The overall budgetary balance in 2019 showed a public deficit of 703 billion Rials (7.9% of GDP) — down from a deficit of 909 billion Rials in 2018 (5.6% of GDP). The ratio of total revenues and grants to public expenditures was 57% in 2019. While still far from the 80% coverage ratio commonly considered the rule of thumb for emerging markets, it nevertheless represented a significant improvement compared to the 45% ratio in 2018. The fiscal deficit was estimated at 480.8 billion Rials during the first three quarters of CY 2020. See Table III.2.b.

Table III.2.b Overall Balance (Rials billion)

	Dec-18	Dec-19	Sep-20
Total public revenues and grants	**743**	**922**	**446**
Total public expenditures	**1,652**	**1625**	**926.8**
Overall balance	**-909**	**-703**	**-480.8**
Overall balance, as % of GDP	**-7.9**	**-5.6**	**…**

Source: Ministry of Finance and CBY.

III.3 Public Domestic Debt

Due to the ongoing decline in public revenues, net internal public debt (i.e., the stock of internal debt since the CBY's temporary relocation to Aden in the third quarter of 2016) soared by 1,200 billion Rials in 2019, a year-over-year increase of 77.7%, and reached a value of 2,744.9 billion Rials at the end of December 2019.

The primary source of domestic public financing was direct borrowing from the Central Bank, amounting to 1,544.9 billion Rials in 2019. This was equal to 83% of total public internal debt. Wakala deposits, at 372.3 billion Rials, constituted the second-largest source of domestic public financing and represented 13.6% of the total. The third-largest source was certificates of deposit, which made up 3.4% of all public debt at 95.6 billion Rials.

The same trend was evident in the first three quarters of CY 2020. The stock of internal debt rose to 3,120.6 billion Rials through September, with 93.2% financed directly through monetary emissions. The remaining 6.8% raised through the rollover of Wakala Sukuks and certificates of deposit. Table III.3 presents the components and shifts in Yemen's public internal debt.

Table III.3 Public Internal Debt (Rials billion)

	Dec-18	Dec-19	Sep-20
Internal public debt	**1,544.9**	**2,744.9**	**3,120.6**
Central Bank financing of the government (overdraft)	**1,433.8**	**2,277**	**2,909.2**
Commercial and Islamic bank financing of the government	**111.1**	**467.9**	**211.4**
Wakala deposits	94.9	372.3	158.8
Certificates of deposit	16.2	95.6	52.6

Source: Ministry of Finance and CBY.

While the current situation poses major challenges from the perspective of stable public financial management, the Ministry of Finance is committed to achieving fiscal balance in the medium term, strengthening its institutional and governance structures, and enhancing its operational capacity to promote effective planning and timely implementation of a sound fiscal policy framework.

CHAPTER IV: External Sector

The improvement in Yemen's political and security situation during 2019 played a fundamental role in boosting the performance of the national economy and, more specifically, the external sector. This boost was reflected, in turn, in the status of the balance of payments as exports increased and foreign earnings rose.

In contrast, the widening balance of payments deficit witnessed in the first nine months of 2020 reflects a rapid and radical deterioration of economic fundamentals; due to the adverse effects of the COVID-19 pandemic and the fall in oil prices. The sharp drop in foreign export earnings led to extensive utilization of available foreign reserves, which shrank precipitously, reflecting economic headwinds and further depreciating the national currency.

IV.1 Balance of Payments

Preliminary data indicate that Yemen experienced a deficit in the overall balance of payments of about USD 1.065 billion in 2019, the equivalent of 4.7% of GDP. This deficit was reflected in a USD 1.316-billion decrease in the Central Bank of Yemen's total foreign reserves 2019, which fell to USD 1.402 billion — only enough to cover 1.6 months of imports. The deficit in the balance of payments is primarily due to the twin deficits of the current account and the capital and financial accounts.

All balance of payment indicators reflected Yemen's challenging economic position heading into 2020 (Table IV.1). The deficit in the current account amounted to USD 987.8 million in 2019, equal to 4.4% of GDP; the capital and financial account recorded a deficit of USD 77.5 million in 2019, equal to 0.3% of GDP. The projected deficit of the total balance of payments at the end of 2020 was USD 1.0785 billion.

Table IV.1 Balance of Payments Key Indicators

	2018	2019
Current deficit, as % of GDP	-2.2	-4.4
Exports + imports, as % of GDP	43.1	53.9
Exports, as % of GDP	5.4	6.5
Remittances, as % of GDP	19.2	18.8
Humanitarian assistance, as % of GDP	10.7	15.7
Imports, as % of GDP	37.7	47.4
Oil imports, as % of GDP	10.3	13.8
Food imports, as % of GDP	9.1	14.4
Gross international reserves (USD million)	2,718.6	1,402.1
Foreign reserves coverage in months of imports	3.7	1.6

Source: IMF and CBY.

The following section presents the primary indicators of the balance of payments in greater detail.

- **Current account**

As noted, the current account —transactions related to goods and services, income, and current transfers — recorded a deficit of USD 987.8 million in 2019, equal to 4.4% of GDP. This account is expected to grow by USD 13.2 million in 2020, or a 1.3% year-over-year increase, to reach USD 1.001 billion.

The trade deficit increased in 2019 by USD 1.659 billion or 21.9% year over year, reaching USD 9.225 billion, equal to 40.9% of GDP. The trade deficit is projected to improve significantly in 2020 to about USD 7.527 billion.

Overall, the total value of exports increased in 2019 by USD 196.4 million (15.4% year over year), to a total of USD 1.474 billion, equal to 6.5% of GDP. The value of exports is expected to decrease in 2020 by 36.6% year over year, principally reflecting significantly lower growth in the global economy.

- ***Exports of crude oil and gas***

Crude oil and gas exports increased by 20.3% in 2019 to reach USD 1.101 billion, equal to 74.7% of all exports and 4.9% of GDP. Crude oil and gas exports are expected to decline in CY 2020 to USD 476 million, a decrease of USD 625 million and 5.8% year to year due to political instability and worsening international economic conditions.

- ***Non-oil exports***

The value of non-oil exports rose to USD 373.5 million, an increase of USD 10.8 million or 3% in 2019. These accounted for 25.3% of total exports of goods and services and 1.7% of GDP. The value of non-oil exports is expected to increase in 2020 by 22.9%, to USD 459 million — a bright spot for Yemen and a reflection of early-stage work underway to diversify the country's exports.

Yemen's dependence on imported goods is reflected in the sector's share of GDP, which is well above global averages. The total value of 2019 imports increased by USD 1.856 billion to USD 10.7 billion (a 21% year-over-year increase), with imports accounting for about 47.4% of GDP in 2019. The value of imports is projected to reach around USD 8.46 million in 2020, a decrease of USD 2.238 billion, or 20.9%.

- ***Imports of oil products***

The value of oil derivative imports increased by 28.3% year over year to reach USD 3.114 billion, equal to 13.8% of GDP and 29.1% of total imports. Oil derivative imports decreased by USD 1.251 billion to USD 1.863 billion, a 40.2% year-over-year fall. Over the first three quarters of 2020, petroleum imports totaled USD 1.863 billion, declining by 40.2% year over year.

- ***Food imports***

Food imports reflect a core part of Yemen's consumer spending. The bulk of basic goods are imported, which means that worsening global conditions place significant demands on consumers. Imports of basic food commodities grew by 52% to reach USD 3.250 billion in 2019, accounting for 30.4% of total imports of goods and services and 14.4% of GDP that year. The increased availability of foreign exchange due to Saudi deposits allowed the CBY to cover letters of credit for importers of five vital food commodities and ensure their continuous availability across Yemeni governorates. The cost of importing food was estimated to have increased slightly (0.9%) in 2020 over the previous year, with total food imports equaling USD 3.279 billion.

- ***Balance of income and transfers***

The net balance of income and transfers rose to USD 8,237 billion (38.5% of GDP) in 2019, a year-over-year increase of USD 1,180 million, or 16.7%. This, in turn, reflected a USD 1.180-billion net increase in transfers, accompanied by a slight decline of USD 0.6 million in net income receipts. Net transfers increased by USD 1.046 billion and humanitarian and donor assistance by USD 384.2 million over the previous year, while remittances decreased by USD 250 million, a 5.6% year-over-year decline. The decline in remittances appeared to reflect regional and economic difficulties faced by the Yemeni diaspora.

- **Capital and financial account**

Yemen's capital and financial account recorded a deficit of USD 77.5 million in 2019. This deficit was expected to remain at approximately this level in 2020.

- **Overall balance**

The overall balance recorded a deficit of USD 1.065 billion in 2019, equal to 4.7% of GDP. This was chiefly due to the high current account deficit, reflecting the decrease in the government's share of oil and gas exports (due to the decline in oil prices in international markets). The balance of payments deficit was also exacerbated by the transformation of the capital account surplus into a deficit, which was a result of the increase in direct investment flows abroad and the decrease in other investments. This change, in turn, impacted the Central Bank's gross foreign reserves, which decreased by USD 1.316.5 billion during 2019. The deficit of the total balance of payments for 2020 is projected to increase by USD 13.2 million, or 1.2% on a year-over-year basis, to reach USD 1.078.5 billion (Table IV.2).

Both the balance of payments deficit and the fiscal deficit are expected to widen further over the coming months as the effects of the COVID-19 crisis continue to reverberate. Unless the main causes are addressed in the short term, these deficits will lead to more weakening of the local currency. To combat this downward pressure and help stabilize the Yemeni economy, the country will need to further accelerate progress towards implementation of sound macroeconomic and structural policies that help revive private sector activity, boost export earnings, contribute to building up a buffer of foreign reserves, and limit debt monetization should be pillars of economic policy moving forward.

Table IV.2 Balance of Payments, Actual and Projected (USD million)

	2018	2019	2020
Exports of goods and services	**1,278**	**1,474**	**935**
Hydrocarbon	915	1,101	476
Other exports	363	373	459
Imports of goods and services	**8,844**	**10,700**	**8,462**

	2018	2019	2020
Hydrocarbon	2,427	3,115	1,863
Food	2,139	3,250	3,279
Other imports	4,278	4,335	3,320
Balance of goods and services	**-7,566**	**-9,226**	**-7,527**
Incomes	-12	-13	-27
Transfers	7,070	8,251	6,553
Remittances	4,500	4,250	3,500
Humanitarian assistance	2,507	3,553	3,026
Use of donor grants	63	447	27
Balance of incomes and transfers	**7,058**	**8,238**	**6,526**
Current account	**-508**	**-988**	**-1,001**
Capital inflows net	**-78**	**-78**	**-78**
Errors and omissions			
Overall balance	**-586**	**-1,065**	**-1,079**

Source: CBY.

IV.2 Public External Debt

The lack of accurate data from public authorities and lending and donor countries on the size of the Republic of Yemen's external debt is a significant, ongoing barrier to managing the nation's finances. To address this, a working group has been formed to collect data by communicating with lenders and helping restart the Debt Management and Financial Analysis System (DMFAS). The group comprises representatives of the Central Bank, the Ministry of Finance, and the Ministry of Planning and International Cooperation supported by USAID- and UK Aid-financed Pragma experts.

The most recent IMF estimates of the external public debt of Yemen indicate that the outstanding balance has increased by USD 23 million (0.3% year over year) to a total of USD 6.658 billion, which equals 29.5% of 2019 GDP. Due to installments and interest paid, the balance of the debt of the International Development Agency (IDA) decreased in 2019 to USD 1.535 billion, a USD 78-million or 4.8% drop. The IDA debt represents 23% of the balance of the outstanding external public debt in 2019. For the entire year 2020, total debt service to IDA amounted to USD 85.9 million, of which USD 74.8 million was principal repayments, and USD 11.1 million was interest payments.

Appendix: Statistical Concepts and Methodology

The Quarterly Economic and Monetary Bulletin issued by the Central Bank of Yemen focuses on developments in and projections for global economic conditions as well as local economic and monetary developments. This Bulletin highlights the following topics in its four chapters:

I- Current Situation and Economic Prospects

The World Economic Outlook report issued by the IMF is the most reliable resource for diagnosing the development of global economic conditions and their prospects. We rely on data from the Central Statistical Organization (CSO) if and/or as available to diagnose the conditions of the national economy.

II- Money Aggregates and Monetary Policy Developments

The Central Bank of Yemen is the main source of the country's monetary and banking statistics. The General Department of Central Accounts provides the General Department for Research and Statistics with the balance sheet of the Central Bank, while the General Department for Banking Supervision provides the consolidated balance sheet of commercial and Islamic banks and their various activities.

The General Department for Research and Statistics collects these data and periodically prepares them for publication in accordance with the IMF's 2000 Monetary and Financial Statistics Manual. The Central Bank treats the data it collected separately on the concerned institutions with strict confidentiality. The monetary data should be published in their final form, and these data are reviewed when any amendment is made related to the methodology used and the classification of the monetary data. The following is an introduction to the content of the most prominent terms included in the monetary tables:

- Banks: All commercial and Islamic banks operating in the Republic of Yemen that accept deposits.
- Banking system: The Central Bank of Yemen and the commercial and Islamic banks operating in Yemen.
- Government: The central government and the local councils.
- Social Security institutions: The General Authority for Insurance and Pensions, the General Organization for Insurance and Pensions, and the security and military retirement Institutions.
- Public institutions: Public (non-financial) institutions and companies in which the government has an interest and/or voting power.
- Non-governmental sector: All local sectors except the government and social security institutions.
- Resident: A natural or legal person who usually resides in Yemen or has been in Yemen for one year or more, regardless of the nationality of this person, with the exception of international bodies and institutions and foreign students who reside for more than one year.

- Non-resident: A natural or legal person who usually resides outside Yemen and/or who has not completed one year of residency in Yemen, regardless of the nationality of this person, except for a family or individual who has an economic center or interest in Yemen and has permanent housing even if this family or individual resides in Yemen intermittently.
- Net foreign assets: The external assets of the banking system minus the external liabilities of the banking system, based on the concept of residency. These are calculated for the Central Bank and each other bank from the external assets and liabilities included in their balance sheets.
- Net government borrowing: The sum of the claims on the central government and local councils of the banking system, minus the total government deposits with the banking system.
- Claims on the non-governmental sector: The total claims on public institutions and the local private sector.
- Other items net: The sum of the other assets of the banking system minus the sum of other liabilities of the banking system, representing items that are not included in the definition of net foreign assets, net of government borrowing, and claims on the non-governmental sector from the Central Bank balance sheet and the consolidated balance sheet of commercial and Islamic banks.
- Currency issued: The cash issued by the Central Bank, consisting of cash circulating outside banks plus cash in banks' vaults.
- Money: Currency in circulation plus demand deposits in Rials with the banking system for both the (local) private sector and public institutions.
- Quasi-money: Both savings and time deposits in Yemeni Rials and deposits in foreign currencies for all sectors mentioned in the definition of money with the banking system, in addition to deposits of social security institutions.
- Money supply: The sum of money plus quasi-money as well as the sum of net foreign assets, net government borrowing, claims on the non-governmental sector, and other items net.
- Banks' deposits with the Central Bank include the following:

  1) Reserve requirement: The minimum value that banks must keep with the Central Bank to meet the mandatory reserve ratio imposed on deposits with banks.

  2) Current accounts: Current accounts opened by banks with the Central Bank in local and foreign currencies. Certificates of deposit in Rials are not considered within these accounts.

- Bank advances credit granted by commercial banks in the form of loans, facilities, and discounted securities in addition to financing provided to Islamic banks for their investment operations.
- Loans and advances granted to the private sector by banks: Among others, direct loans and facilities granted by banks to the private sector and banks' investments in the shares of companies.

- Loans and advances granted to the government by banks: Agency deposits (alternatives to Islamic bonds), certificates of deposit, and government bonds.
- Exchange rate and monetary policy: The Central Bank of Yemen strives to stabilize the national currency exchange rate — a monetary anchor point — against major foreign currencies through effective monetary policy measures to achieve a macroeconomic balance between supply and demand and to curb price inflation. The General Department of Foreign Exchange and Exchange Affairs is the source of these data and procedures.

III- Public Finance

- The Ministry of Finance is the source of the state's general budget data. In addition to these data, we rely on data from the Central Bank's General Budget Department, including budget data on the following: Public revenues: Oil and gas revenues, direct and indirect tax revenues including customs duties, and non-tax revenues, among others.
- Grants: All sums obtained as donations free of charge from allies and friendly countries.
- Public expenditures: Current expenditures (including chapters 1, 2, and 3 according to economic classification) and development and capital expenditures (containing chapters 4 and 5).
- Total balance: This represents the state's general budget and indicates the relationship between public revenues and overall public spending.

IV- External Sector

- Balance of payments: The Central Bank of Yemen Law No. (14) of 2000 makes the Central Bank responsible for collecting the balance of payments statistics. The Balance of Payments Department of the General Department for Research and Statistics is tasked with collecting the balance of payments data from various ministries and government agencies and through investment company surveys.
- External public debt: The Department of Foreign Loans and Aid at the Central Bank of Yemen is the source of external public debt data. In this regard, please note that the outstanding balance of the external debt represents the amounts withdrawn from external loans, minus the installments paid plus the arrears on installments and interest.

Disclaimer

Beginning in August 2008, monetary and banking data were amended and updated in accordance with the 2000 Monetary and Financial Statistics Manual issued by the International Monetary Fund.

According to Article (45) of the Central Bank Law No. (14) of 2000, all information and individual data provided to the Central Bank is strictly confidential information and to be used only for statistical purposes, and no information may be published that reveals the financial conditions of any bank or financial institution.

The data contained in this Bulletin were received from sources such as ministries and government agencies are preliminary data and subject to change.

We use projections made by the International Monetary Fund when and/or if no relevant national sources of data and/or information are available.

This Bulletin is issued by the Department of Research and Statistics at the Central Bank of Yemen – Aden.

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Central Bank of Yemen

Quarterly Bulletin

Economic and Monetary Developments

Issue No. 2 (March 2021)

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Head Office - Aden

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Foreword

The Central Bank of Yemen (CBY) is pleased to present the Quarterly Economic Bulletin – Issue No. 2 (March 2021). The Bulletin provides readers and researchers interested in economic and monetary developments in the Republic of Yemen insights on major developments across all sectors. It also directly enhances the financial regulatory oversight processes in alignment with Basel II and Basel III pillars.

This issue of the Bulletin reviews key developments during 2020 across critical macro-financial performance and policy areas and discusses their implications for the Yemeni economy. The first chapter looks at global and local macroeconomic developments. The second chapter outlines recent monetary and banking sector developments. The third chapter focuses on public finances and the fourth on external sector developments.

While the ongoing war, which began in 2015, has resulted in a prolonged contractionary phase, the Yemeni economy witnessed positive growth rates in 2018 and 2019 owing to a significant surge in oil production before plunging into recession in 2020 under the impact of the COVID-19 crisis. The outbreak of the pandemic in early 2020 and the subsequent lockdowns and collapse in oil price badly disrupted global markets and created severe recessionary pressures internationally. Oil price drops and the spread of the pandemic have had significant adverse effects on Yemen's economic activity, with real GDP estimated to have contracted by approx. 5% in 2020. In addition to these shocks, the January 2020 ban on newly printed banknotes in the region under Houthi control has limited the government's ability to pay salaries in this area and complicated monetary policy operations. This has increased the cost of financial transactions, reduced market transparency, and resulted in widening exchange rate gaps between Aden and Sanaa — to as much as 35% in some instances.

Inflationary pressures, triggered primarily by inflation on imports, remained strong. As around 90% of Yemen's basic, consumable goods come from overseas, this poses an ongoing macroeconomic management challenge. In line with the legal mandate of the CBY, as stated in Article 5 of the Central Bank Law, a concerted and sustained monetary policy response directed toward stabilizing prices and providing sufficient liquidity is needed to maintain adequate funding of the public and private sector needs. The monetary control measures adopted this past year represent an important initial step in this direction.

Yemen's fiscal position improved during the last few years primarily as a result of an increase in oil exports, although these remain far below pre-war levels. Expenditure rationalization and fiscal deficit financing, however, are still critical issues to be addressed through close coordination among all government entities. A small portion of the fiscal deficit was financed through domestic market borrowing, while the lion's share of the fiscal deficit was funded largely through CBY monetary emissions (which were controlled overall in a manner that helped keep inflation under control). Enhanced public financial management, development of domestic debt capital markets, and financial deepening remain top reform priorities anticipated in the coming years.

Yemen's external position has continued to deteriorate since the outset of the war, which has led to a significant weakening of the value of the local currency. The only exception to this trend was in 2019 when drawdowns from a June 2018 Saudi deposit of USD 2 billion helped stabilize the Rial exchange rate. Reviving economic activity, boosting export earnings, building up a buffer of foreign reserves, and working to limit further debt monetization are the main pillars of our macro-financial policy over the upcoming period.

The high level of commitment and quality output from Bank management and staff, which facilitated smooth and efficient functioning of the CBY, merit deep appreciation. We could not have published this Bulletin had other departments not contributed their efforts and data.

It is also acknowledged with great appreciation that the CBY, since June 2019, has received expert technical support from the USAID- and UKAid-financed Pragma advisory team in helping improve core functions and building institutional capacity through the implementation of a detailed, time-framed action plan covering core functional areas of Central Bank operations.

God bless,

Ahmed Obaid Al-Fadhli

Governor

Executive Summary

The Yemeni economy witnessed improvement in 2019, following the deep contraction since the start of the war in 2015. This contraction was primarily attributed to declines in the hydrocarbon sector, which makes up a significant share of domestic output. In CY 2020, the dual shocks of the COVID-19 pandemic and a steep decline in oil prices severely affected economic activity. As it will take time for the global economy to return to normal, oil prices will remain low, affecting hydrocarbon sector activities in the Republic of Yemen.

As stated in the Central Bank of Yemen (CBY) Law No. (14) of 2000, achieving price stability is the primary objective of monetary policy. In this regard, the CBY is proactively steering monetary policy in a manner designed to maintain macro-financial stability; while providing adequate financing to ensure critical public financing needs are met. It is operating in concert with relevant government institutions and with the assistance of the international community.

The principal objective of monetary policy is to attain low and stable inflation. To this end, the central bank attaches great importance to control the money supply. This is being achieved by constructing a robust framework for monetary targeting and moving toward adopting a comprehensive toolkit of indirect and market-based instruments for liquidity management.

Inflationary conditions worsened somewhat in 2020 after relative stability in 2019. Significant devaluation of the Rial, the lack of foreign reserve buffers at the Central Bank of Yemen, growing uncertainty, and increased dollarization all contributed to inflationary pressures. Market surveys indicate that average food-price inflation exceeded 30% in 2020. The annual inflation rate was estimated at around 25%, up from an estimated average rate of 10% in 2019. Inflation is projected to remain slightly above 20% in 2021.

Against this backdrop, monetary aggregates expanded at a reasonably stable clip during the last two years. Broad money grew by 15% in 2020 and 8.5% in 2019, down from a growth rate of 28.5% in 2018. Reserve money (base money) increased by 13.3% in 2020 and 11.5% in 2019, down from a growth rate of 28.3% in 2018. Narrow money (M1) increased by 15% and 10.6% in 2020 and 2019, respectively, compared with a 33.1% growth rate in 2018.

Currency in circulation, which accounted for more than 80% of narrow money and constitutes the main driver of M1 growth, grew by 15.1% in 2020 and 10.6% in 2019, below the 36.6% growth rate in 2018. From the perspective of the CBY balance sheet, monetary expansion was contained through a 50.6% decline in net foreign assets in 2020. With respect to domestic assets, the overall net growth rate declined to 18.8% in 2020 from 26.8% in 2019. Net claims on the government grew by 18.3% in 2020 and 19.6% in 2019, against 27.3% in 2018. This constituted the major source of overall monetary growth.

The CBY managed to design a robust monetary program for 2020 and 2021, the first since its relocation to Aden. This helped rationalize money supply parameters and limited high inflationary pressures stemming from monetary creation. Within this overall framework, broad money (M2) increased by 15% in 2020, significantly outperforming the annual target of 22.2%. Base money grew by 13.3% during the same year, also significantly outperforming the annual target of 20.6%.

Currency issuance increased by 15.1% in 2020, far below the annual target of 25.5%. The program has proved to be highly effective, outperforming all benchmarks set in the annual monetary program. For CY 2021, the annual monetary plan projects broad and base money to grow by 18.3% and 19.1%, respectively.

The deterioration of macroeconomic conditions since 2015 has severely affected the government's fiscal position. In consequence, fiscal consolidation through further expenditure rationalization and boosting of the revenue base (from both hydrocarbon and non-hydrocarbon activities) remains a key macroeconomic policy priority.

The fiscal deficit for 2020 is estimated at 797 billion Rials – or 5.2% of GDP. This, in turn, predominantly reflects the contractionary impact of the pandemic on overall economic activities and on revenue inflows. Investment expenditures made up a negligible share of expenditures, and the majority of government spending was allocated to covering current spending needs. Expenditure containment efforts were intensified in 2020, with the importance of such efforts further underscored by declining oil revenues due to the COVID-19 crisis.

Fiscal discipline, rationalizing public expenditures, improving efficiency, and identifying non-inflationary means to finance government expenditures are all urgently important to promote sustainable fiscal consolidation and macroeconomic stability.

The external sector has continued to deteriorate due to the fall in oil exports and significant declines in remittances. At the same time, dependence on humanitarian aid has continued to increase significantly. The balance of goods and services registered a deficit of USD 9.2 billion in 2020, up from USD 7.5 billion in 2019. The current account deficit represented 2.1% of GDP in 2020. The recent volatility in international oil prices dramatically highlights the importance of reducing Yemen's dependence on the petroleum sector.

The current account deficit continues to require significant levels of external financing. In 2019, the deficit was financed in part through a net capital account outflow of USD 78 million and a drawdown of official foreign reserves in the amount of USD 1.065 billion, significantly larger than the USD 586-million drawdown in 2018. The same trend is observed for 2020, with the balance of payments gap estimated at approximately USD 1.080 billion. This trend is being driven largely by the negative impact of COVID-19 on remittances, which are estimated to have declined by more than 20% in 2020 in a further illustration of the contractionary impact of the crisis on economic activity and employment in the region.

The drop in remittances is particularly evident with respect to the Kingdom of Saudi Arabia, which accounts for around 60% of Yemeni diaspora remittances. This decrease has dramatically reinforced the adverse economic impact of the ongoing oil crisis and the dampening of foreign aid inflows in 2020 due to the pandemic.

External imbalances will need to be addressed through increased export earnings and progress toward economic diversification to restore macroeconomic stability. It is also hoped that recent improvements in political economy and security stability conditions may help attract additional capital inflows as well over time.

CHAPTER I: Current Situation and Economic Prospects

I.1 World Economic Growth

The IMF's April 2021 World Economic Outlook report projected global growth to fall by 3.3% in 2020, largely due to the effects of the COVID-19 pandemic. Global growth is expected to reach 6% in 2021 in anticipation of the recovery. These projections for the current year are more positive than the World Economic Outlook estimates published in October 2020. They reflect expectations of additional fiscal support in several large economies, a vaccine-powered recovery in the second half of 2021, and continued adaptation of economic activity to subdued mobility. The actual trajectory of the pandemic, the effectiveness of policy support to provide a bridge to vaccine-powered normalization, and evolving financial conditions could still change this outlook.

Indeed, global prospects remain highly uncertain one year into the pandemic. New virus mutations and the mounting human toll are constant concerns. The divergent economic recoveries across countries and sectors reflect differences in the pandemic-induced disruptions they are experiencing and the extent of policy support. The global and local outlook depends not just on the outcome of the battle between the novel coronavirus and vaccines. It also hinges on how effectively economic policies deployed in these conditions of intense uncertainty can limit lasting damage from this unprecedented crisis.

The economic disruptions caused by the pandemic were reflected in a slump in demand that led to weak price growth and deflation across the globe. The average inflation rate in advanced economies decreased to 1.5% in 2019 from 2% in 2018 and decreased slightly, to 4.7% in 2019 from 4.8% in 2018; in emerging markets and developing economies (Table I.1). While considerable uncertainty also surrounds future inflation projections, inflation is expected to remain low due to relatively weak aggregate demand.

Table I.1 Global Growth Forecast

		Projections	
	2019	**2020**	**2021**
Global growth rate, %	2.8	-3.3	6
Growth rate (advanced economies), %	1.7	-4.7	5.1
Growth rate (emerging and developing economies), %	3.7	-2.2	6.7
Growth rate (Middle East and Central Asia), %	1.4	-2.9	3.7
Growth rate (Middle East and North Africa), %	0.8	-3.4	4
Growth rate (low-income developing countries), %	5.3	0	4.3

Source: IMF, *World Economic Report*, April 2021.

3

I.2 Growth and Price Developments in Yemen

After contracting by an estimated 45% from 2014 to 2017, economic activity in Yemen began to improve in 2018, reflecting growth sparked primarily by the hydrocarbon industry. Real GDP increased by an estimated 2.1% in 2019, up from 0.8% in 2018, despite slowing global growth and tightening financial conditions.

Yemen's 2019 growth was accompanied by a decrease in the inflation rate from the 20% to 30% range (recorded over 2015-18) to approximately 10% in 2019. Inflation in Yemen has traditionally been the result of both imported inflation (increases in import prices due to currency depreciation) and local factors, but monetary policy adopted in 2019 has thus far been successful in controlling the money supply in a manner consistent with the pace of economic activity. In addition, the Rial exchange rate was stabilized after an exchange rate crisis in the fall of 2018, which saw the Rial depreciate to unprecedented levels. International and domestic economic conditions further eased inflation in 2019, including slow growth in international prices for non-oil commodities and modest domestic demand that both played a role in cutting inflation by more than half.

The economic picture changed for Yemen in 2020, as it did for the rest of the world. As an oil-dependent state, Yemen experienced a significant negative impact from declining oil prices as well as the contractionary effects of the pandemic. The expectation is that its GDP contracted by 5% in 2020 but may regain some ground, growing by approx. 0.5% in 2021.

In terms of prices, it exceeded 20% in 2020 and is expected to remain at the 20-25% level in 2021. High inflation has direct and immediate costs for consumers since roughly 90% of Yemen's total consumable goods are imported. The market survey found that the national average cost of the Minimum/Survivable Food Basket increased by 4%, month over month, in December 2020 and almost 30% year-over-year.

CHAPTER II: Monetary Developments

This chapter analyzes the development of base money and broad money aggregates in Yemen from 2019 through 2020 to understand the linkages between money and other macroeconomic variables. To this end, we review the CBY balance sheet in detail, the commercial and Islamic banking survey, and the overall monetary survey.

The monetary survey was developed in 2019 as part of technical assistance, capacity building, and institutional strengthening support provided by USAID to the Central Bank of Yemen. The CBY needs accurate reporting to create proper monetary decisions. By providing a thorough picture of the financial system, the monetary survey will help it formulate and implement a sound monetary policy framework.

The year 2020 brought positive news regarding Yemen's monetary policy. Money supply growth was contained in 2019 and 2020, following the CBY's adoption of a more appropriate monetary policy based on a monetary programming framework designed to ensure adequate economic absorptive capacity and a stable monetary emission framework.

The impact of this ongoing reform has become evident in the significant decline of the currency issuance growth rate: This was 12.4% in 2019 and 15.1% in 2020, a significant reduction in relation to 2018, when it was 35.8%, and from 2017 (when it was 37.6%). Moreover, the broad money supply (M2) rose by 8.5% in 2019 and 15% in 2020.

II.1 Central Bank Balance Sheet

The CBY balance sheet reached 7,286.3 billion Rials in 2020, an increase of 727.5 billion Rials or 11.1% year over year. Table II.1 presents key balance sheet components.

- **Assets**

The Central Bank's net foreign assets decreased in 2020 by 240.6 billion Rials, a 50.6% decline year-over-year. They stood at 907.5 billion Rials (USD 2.269 billion). There are two main causes for these trends. First, Yemen's ongoing political instability has slowed oil exports. Second, the steep decline in international oil prices lessened the value of Yemen's exports and deprived the country of its primary source of foreign assets. As a result, total external assets as a share of total assets fell to 5.3% in 2020 from 9.6% in 2019, and net claims on the government increased in 2020 by 767.4 billion Rials (18.3% year-over-year) and by 689.4 billion Rials in 2019 (19.6% year-over-year).

- **Liabilities**

Base money (the sum of currency issued by the CBY and reserves held by commercial banks at the CBY) grew by 13.3% over the entire 2020 calendar year against a target of 20.6%. Currency issued grew by 15.1%, while bank reserves grew by 4.4% over the year. These increases are mainly attributable to two factors: the net effect of the increase in credit to the government in the form of direct financing of the budget deficit and the decrease of foreign assets as a result of the disbursement of the remaining balance of the Saudi deposit.

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Table II.1 Central Bank of Yemen Balance Sheet (billion Rials)

	Dec-18	Dec-19	Dec-20
Foreign assets	**1,133.6**	**628.4**	**387.8**
Domestic assets	**4,616.7**	**5,930.4**	**6,898.5**
Government	3,756.3	4,532.3	5,398.9
Public enterprises	309.5	309.5	309.5
Banks			
Fixed and other assets	550.9	1,088.6	1,190.1
Assets=liabilities	**5,750.3**	**6,558.8**	**7,286.3**
Base money	**3,125.9**	**3,484.7**	**3,948.2**
Banknotes issued	2,571.6	2,890.5	3,327.5
Banks	554.3	594.2	620.6
Government	243.6	330.6	429.7
Public enterprises	105.4	48.5	60.3
Social Security Fund	58.7	58.7	58.7
Certificates of deposit			
Foreign liabilities	**1,230.9**	**1,230.9**	**1,295.3**
Other liabilities	**985.9**	**1,405.4**	**1,494.1**
Capital and reserves	110.9	517.5	623
Revaluation account	164.6	214.4	259.8
Special drawing rights	83.8	83.8	93.5
Other liabilities	626.6	589.7	517.8

Source: CBY.

II.2 Consolidated Balance Sheet of Commercial and Islamic Banks

The consolidated balance sheet of commercial and Islamic banks totaled 4,408.9 billion Rials in 2019, an increase of 374.7 billion Rials or 9.3% over 2018 (Table II.2).

- **Assets**

Net foreign assets of commercial and Islamic banks increased by 113.4 billion Rials, or 14.9%, in 2019, to a total of 873.2 billion Rials, due primarily to a 56.7-billion Rial (13.7%) year-over-year rise in correspondent accounts and a 30.6-billion Rial (45.8%) year-over-year rise in foreign exchange. Total foreign assets rose year-over-year in the amount of 87.2 billion Rials, or 10.6%, to 909.8 billion Rials, equal to 20.6% of total assets in 2019.

In 2019, bank reserves (cash in vaults and account balances at the CBY) increased by 60.9 billion Rials (8.5% year-over-year) to 774.5 billion Rials. This increase resulted from a 61.5-billion Rial (85.6%) year-over-year increase in local currency held and a 0.6-billion Rial (0.1%) year-over-year decrease in reserves held with the Central Bank. Bank reserves as a share of total deposits equaled 23.8% in 2019.

Bank loans and advances increased by 161.6 billion Rials, or 7.5%, in 2019 to reach 2,319.4 billion Rials. The bulk of this increase came from loans provided to the government (primarily represented in treasury bills and Islamic *Sukuk*), which increased by 166 billion Rials (10.7% year-over-year). Advances for public institutions also increased moderately, by 0.6 billion Rials or 3% year-over-year. In contrast, private sector advances decreased year-over-year by 5 billion Rials (0.9%) in 2019.

- **Liabilities**

In 2019, total deposits grew by 222 billion Rials (7.3%) year-over-year to a total of 3,249.3 billion Rials. This increase reflected growth across several types of deposit categories: Year-over-year, demand deposits increased by 11.9%, earmarked deposits by 8%, savings deposits by 7.8%, and time deposits by 5.4%.

The net amount of other liabilities rose by 113.9 billion Rials (18.8%) during 2019, reaching 718.8 billion Rials. This rise reflected, in part, an increase in the capital and reserves of commercial and Islamic banks, which grew by 42.6 billion Rials (14.6% year-over-year) in 2019, totaling 333.7 billion Rials.

- **Deposits**

CBY 2019 data indicate increases in deposits across the board. Time deposits rose by 41.7 billion Rials (5.4% year-over-year) to 815.7 billion Rials or 25.1% of total deposits; demand deposits increased by 69.7 billion Rials (11.9% year-over-year) to 653.9 billion Rials, accounting for 20.1% of total deposits; saving accounts increased by 18.9 billion Rials (7.8% year-over-year) to total 260.9 billion Rials, equaling 8% of total deposits; and earmarked deposits increased by 3.7 billion Rials (8% year-over-year), representing 1.5% of total deposits. Government deposits increased by 9.8 billion Rials or 43% year-over-year, equaling 1% of total 2019 deposits.

Likewise, deposits denominated in foreign currency recorded an increase of 78.1 billion Rials, or 5.8%, in 2019, to a total of 1,436.1 billion Rials and a 44.2% share of total deposits. This increase reflected the stronger overall economic performance of Yemen in 2019.

- **Loans and advances**

The banking sector granted 578.2 billion Rials in credits to the private sector in 2019, a decline of 5 billion Rials, or 0.9%, from 2018 levels.

Credit to the private sector in 2019 was distributed as follows:

- Short-term loans and advances accounted for 18% of total non-government credit
- Medium- and long-term loans accounted for 3% of total non-government credit
- Investments from Islamic banks represented 26% of total non-government credit
- Non-performing loans represented 53% of total non-government credit.

Table II.2 Commercial and Islamic Banks Balance Sheet (Rials billion)

	Dec-18	Dec-19
Assets	**4,034.2**	**4,408.9**

Foreign assets	**822.6**	**909.8**
Foreign currency	66.8	97.4
Banks abroad	414.3	470.9
Non-residents	0	0
Foreign investment	341.5	341.5
Reserves	**713.6**	**774.5**
Local currency	71.8	133.3
Deposits with the CBY	641.8	641.2
Gross Loans and advances	**2,157.8**	**2,319.4**
Government	1,554.8	1,720.8
Public enterprises	19.8	20.4
Private sector	583.2	578.2
Certificates of deposit	**1**	**1**
Treasury bills purchased from the CBY	**0**	**0**
Other assets	**339.2**	**404.2**
Liabilities	**4,034.2**	**4,408.9**
Deposits	**3,027.3**	**3,249.3**
Government	23	32.8
Demand	584.1	653.9
Time	774	815.7
Saving	242	260.9
Foreign currency	1,358	1,436.1
Earmarked	46.2	49.9
Foreign liabilities	**62.7**	**36.6**
Banks abroad	59.8	33.6
Non-residents	2.9	3
Borrowing from banks	0	0
Other liabilities	**944.1**	**1,123**
Loans from the CBY	5.6	13.5
Other liabilities	647.4	775.8
Capital		
Capital and reserves	291.1	333.7

Source: CBY.

II.3- Monetary Survey

A rise in net domestic assets combined with a decline of net foreign assets led to an estimated overall rise in the money supply (M2) to 6,869.8 billion Rials in 2020, a year-over-year increase of 896.1 billion Rials (15%).

When analyzing the dynamics of money supply components in 2020, it is worth noting that year-over-year, narrow money (M1) increased by 511.6 billion Rials (15%), while quasi-money rose by 384.6 billion Rials (15%). Taken together, this represents an increase in monetary flows across the financial system: The rise in narrow money reflected an increase in both currencies in circulation and demand deposits, and the upward trend in quasi-money was due to the increase in time and foreign deposits.

The predominance of currency in circulation, which accounted for 46.5% of the total money supply in 2020, is evidence that Yemen continues to rely heavily on cash as its primary means of financial intermediation. This reflects the ongoing institutional and access constraints characterizing the nation's financial system and generates high transactional costs at both the consumer and institutional levels. In this regard, the overreliance on cash limits intermediation capacity and prevents access to sophisticated payment systems. Table II.3 shows the overall composition of Yemen's money supply.

Table II.3 Decomposition of Broad Money (Rials billion, unless otherwise indicated)

	Dec-18	Dec-19	Dec-20
Broad money (M2)	**5,504.2**	**5,973.7**	**6,869.8**
Broad money, annual % change	28.5	8.5	15
Quasi-money	**2,420.2**	**2562.6**	**2,947.2**
Quasi-money, annual % change	23.1	5.9	15
Quasi-money/broad money, in %	44	42.9	42.9
Foreign currency deposits	**1,358**	**1436.1**	**1,820.6**
Foreign currency deposits, annual % change	52.5	5.8	26.8
Foreign currency deposits, as % of total deposits	45.2	44.6	49.5
Narrow money (M1)	**3084**	**3411.1**	**3,922.7**
Narrow money, annual % change	33.1	10.6	15
Narrow money, as % of broad money	56	57.1	57.1
Demand deposits	**584.2**	**653.9**	**728.4**
Demand deposits, annual % change	20.1	11.9	11.4
Demand deposits, as % of broad money	10.6	10.9	10.6
Currency in circulation	**2499.8**	**2757.2**	**3,194.3**
Currency in circulation, annual % change	36.6	10.3	15.9
Currency in circulation, as % of broad money	45.4	46.2	46.5

Source: CBY.

A significant fraction of Yemen's net monetary emissions has been utilized to finance the government deficit. The deficit has spiked in recent years due to the deterioration of oil export revenues, alongside persistently high public wages, that continue to represent the bulk of government expenditures. It should be noted that drawdowns from the Saudi Letter of Credit deposit, which was utilized to help finance urgently needed imports, helped the CBY bring broad money growth to 8.5% in 2019 (from 28.5% in 2018) and 15% in 2020.

The CBY's initial monetary plan for 2021 projected that base and broad money would grow by 19.1% and 18.3%, respectively, consistent with an inflation rate of around 20%. Designed within the technical assistance framework provided by USAID, this plan was the second since the Central Bank relocated to Aden. The plans focused on controlling the money supply in a manner consistent with the real economic needs emanating from both public and private sectors. Though economic conditions have shifted since their implementation, these plans remain a core part of CBY's strategy moving forward. In the absence of a foreign reserve buffer, strong commitment to the annual monetary plan targets remains the only tool at CBY's disposal to attempt to contain inflationary pressures and stabilize exchange rate movements. The CBY remains committed to its effective implementation.

II.4- Exchange Rate Policy Developments

The exchange rate of the U.S. dollar against the Yemeni Rial reached 700 Rials per dollar at the end of 2020, up from 591 Rials per dollar at the end of 2019. It is noteworthy that throughout 2020, the exchange rate also crossed the threshold of 900 Rials per dollar several times. The significant depreciation, in turn, led to a substantial shortage of foreign currency in the local foreign exchange market needed to cover essential goods. Multiple shocks that hit Yemen's economy in early 2020 combined to cause this dramatic depreciation; among them, the fall in oil prices, the decline in remittances due to the COVID-19 pandemic, and the depletion of the 2018 Saudi deposit. All of these put serious downward pressures on the exchange rate, rolling back progress made over the previous year.

In response to these downward pressures and the accelerating depreciation of the Rial, the CBY approved a set of short-term measures to help further limit the demand for foreign exchange in the market:

- It adopted a new mechanism for oil derivatives imports financing that requires importers to obtain the approval of the CBY to access foreign exchange resources. Under the new arrangement, importers are required to deposit their daily cash sales in local currency to their accounts in commercial banks, while the CBY provides foreign currency to be utilized to cover imports.
- It set a per-day and per-individual ceiling of 500,000 Rials (or the equivalent in foreign currency) for every financial transfer and prohibited the use of foreign currency for payments in the domestic market.
- In cooperation with security agencies and the Public Funds Prosecution, it intensified periodic inspection of all exchange companies and facilities in the liberated governorates.

Nonetheless, these downward pressures on the exchange rate are expected to persist in 2021 due to a projected lack of foreign reserves available to cover the widening gap in the balance of payments. This will continue to affect Yemeni purchasing power, placing stress on consumers and institutions. Given these challenging economic conditions, it is likely that additional international support in the form of balance of payments assistance will be vital to Yemen's economic health.

II.5 Building a Robust Framework for Conducting Monetary Policy

The main mission of the CBY, as set forth in Law No. (14) of 2000, is to maintain price stability by keeping inflation rates low. In pursuing these objectives, the Central Bank plays a critical role in regulating the country's economic health.

To comply with its legal mandate regarding price stability, the Central Bank began targeting the growth rate of the money supply (broad money) as an intermediate target; base money, controllable by the Central Bank, is used as an operational target. There is a strong analytical foundation for this framework, based on empirical estimations conducted by the CBY with the assistance of USAID and FCDO. It was determined that base money is positively and significantly correlated with inflation, which underscores the strong relationship between the monetization of the government deficit and high inflation. This further suggests that an increase in the money supply has a persistent positive effect on inflation rates. With this in mind, the Central Bank's mission looking ahead, will be to smooth variability in the money supply to achieve price stability and to provide an adequate volume of monetary resources to support inclusive growth.

The Central Bank of Yemen places great importance on adhering to this monetary targeting framework for monetary policy operations to achieve macroeconomic objectives. Starting in 2020, it specified quantitative targets for broad money and base money during CY 2020, using the monetary planning framework established with the assistance of external technical support and is closely monitoring their trajectory to keep inflation in check.

Under this framework, the exchange rate will be allowed to adjust gradually, and the current system of multiple exchange rates will be gradually abandoned. Formalized interventions in the foreign exchange market, using a transparent and rule-based auctioning system, will smooth out high exchange-rate volatility. In addition, nominal and real exchange rate movements will be considered in designing monetary policies. The exchange rate channel works through the impact of changes in monetary flows on exchange rates and aggregate demand and supply. Any excessive increase in the money supply will normally lead to a depreciation of the exchange rate, which increases the price of imported goods and services and thereby raises domestic prices and inflationary pressures.

Under current macroeconomic conditions and given how prices have soared since 2014, the Central Bank's plan to restore macro-financial stability relies on several indispensable elements: tightening monetary policy and improving monetary impulse transmission to the real sector, efforts to address external imbalances by promoting private sector exports competitive import substitution activities, and allowing greater exchange rate flexibility while building foreign reserves.

The CBY is working on setting up a combination of well-coordinated monetary policy instruments to achieve its monetary policy objectives. The market-based toolkit of monetary control instruments will be designed to include open market operations, standing facilities, and a structured reserve requirement system as the main pillars of the monetary policy operational framework.

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CHAPTER III: Public Finance

At the end of 2020, Yemen had a public deficit of 797 billion Rials, equal to 5.2% of its GDP, compared to a deficit of 703 billion Rials or 5.6% of GDP at the end of 2019. Though economic conditions worsened in 2020 in the wake of the pandemic outbreak, greater attention to public finance management helped minimize excessive expenditure pressures. It held the fiscal deficit close to the previous year's level.

Yemen's persistently high fiscal deficit must be addressed in the near term by maintaining tight control on spending, given the limited availability of public resources. Moreover, it is critically important to control spending in a manner that is also designed to bring down inflation and contain additional depreciation pressures.

To accomplish these objectives and effectively align public expenditures with available revenues, it will be important to focus clearly on fiscal consolidation. This should include cutting non-essential expenses, effectively prioritizing public spending (for instance, In a manner that can help free up funds to be allocated to healthcare spending), and minimizing tax evasion and fraud. Though under the purview of the Ministry of Finance, this process requires coordination across the government. Careful coordination with the CBY will be required to avoid excessive monetary emission-based financing of the public deficit.

III.1 Public Revenues

Total revenues and grants slightly decreased by 7 billion Rials (0.8% year-over-year) in 2020, reaching 915 billion Rials. The drop resulted from the 117-billion Rial increase in oil revenues and the 124-billion Rial decrease in non-oil revenues, such as from taxes and customs duties. Public revenues totaled 6% of GDP in 2020 (Table III.1).

- **Oil revenues**

Oil revenues rose to 471 billion Rials in 2020, an increase of 117 billion Rials or 33% year-over-year. They accounted for 51% of total public revenues.

- **Non-oil revenues**

Non-oil revenues fell to 396 billion Rials in 2020, a year-over-year decrease of 124 billion Rials (23.9%). They made up 49% of total public revenues.

The composition and shifts in non-oil revenues were as follows:

- Tax revenues (including customs duties) decreased to 221 billion Rials in 2020, a year-over-year decline of 117 billion Rials, or 34.6%. Tax receipts represented just 24.2% of total public revenues.
- Non-tax revenues (which include fees and profit transfers) decreased in 2020 by 7 billion Rials (4% year-over-year), totaling 175 billion Rials, representing 19.1% of total public revenues.

Table III.1 Public Revenues and Grants (Rials billion)

	Dec-18	Sep-19	Dec-19	Sep-20	Dec-20
Total revenues and grants	**743**	**465.2**	**922**	**446**	**915**
Oil revenues	**342**	**237.2**	**354**	**172.8**	**471**
Non-oil revenues	**377**	**228**	**520**	**265.2**	**396**
Tax revenues	224	150.2	338	203.4	221
Other revenues	153	77.8	182	61.8	175
Grants	**24**	**0**	**48**	**8**	**48**

Source: Ministry of Finance.

III.2 Public Expenditures

Public expenditures increased by 5.4% year-over-year during the 2019-20 period, rising from 1.625 billion Rials in 2019 to 1.712 billion Rials in 2020. (Table III.2.a).

Current expenditures

Current expenditures totaled 1,663 billion Rials in 2020, a year-over-year increase of 128 billion Rials or 8.3%.

Capital expenditures

Capital expenditures totaled 49 billion Rials in 2020, a year-over-year decrease of 41 billion Rials or 45.6%. These remained a fairly marginal component of public spending, however, accounting for just 2.8% of overall budget expenditures in 2020.

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Table III.2.a Public Expenditures (Rials billion)

	Dec-18	Sep-19	Dec-19	Sep-20	Dec-20
Total expenditures	**1,652**	**1,218.8**	**1,625**	**926.8**	**1,712**
Current expenditures	**1,555**	**1,151.3**	**1,535**	**880.5**	**1,663**
Wages and salaries	821	640.5	854	389.3	878
Goods and services	308	90	120	159.9	199
Interest payments	8	22.5	30	53.3	255
Subsidies and transfers	389	369	492	259.5	281
Other expenditures	29	29.3	39	18.5	50
Capital expenditures	**97**	**67.5**	**90**	**46.3**	**49**

Source: Ministry of Finance and CBY

- **Overall balance**

The overall budgetary balance in 2020 showed a public deficit of 797 billion Rials (5.2% of GDP), compared to the deficit in 2019 of 703 billion Rials (5.6% of GDP). The ratio of total revenues and grants to public expenditures was 53% in 2020, down from 57% in 2019. While still far from the 80% coverage ratio commonly considered the rule of thumb for emerging markets, these nevertheless represented a significant improvement compared to the 45% ratio for 2018 (Table III.3.b).

Table III.3.b Overall Balance (Rials billion)

	Dec-18	Dec-19	Dec-20
Total public revenues and grants	**743**	**922**	**915**
Total public expenditures	**1,652**	**1625**	**1,712**
Overall balance	**-909**	**-703**	**-797**
Overall balance, as % of GDP	**-7.9**	**-5.6**	**-5.2**

Source: Ministry of Finance and CBY.

III.3 Public Domestic Debt

Owing to the ongoing decline in public revenues, net internal public debt (i.e., the stock of internal debt since the CBY's temporary relocation to Aden in the third quarter of 2016) soared by 1,200 billion Rials in 2019, a year-over-year increase of 77.7%. It reached a value of 2,744.9 billion Rials at the end of December 2019.

The primary source of domestic public financing was direct borrowing from the Central Bank, equaling 1,544.9 billion Rials in 2019. This represented 83% of total public internal debt. Wakala deposits, at 372.3 billion Rials, constituted the second-largest source of domestic public financing and represented 13.6% of the total. The third-largest source was certificates of deposit, which, at 95.6 billion Rials, made up 3.4% of all public debt.

The same trend was evident during 2020. The stock of internal debt rose to 3,120.6 billion Rials through December 2020, with 93.2% financed directly through monetary emissions. The remaining 6.8% raised through the rollover of Wakala Sukuks and certificates of deposit. Table III.3 presents the components and shifts in Yemen's public internal debt.

Table III.3- Public Internal Debt (in billion Rials)

	Dec-18	Dec-19	Dec-20
Internal public debt	**1,544.9**	**2,744.9**	**3,120.6**
Central Bank financing of the government (overdraft)	**1,433.8**	**2,277**	**2,909.2**
Commercial and Islamic bank financing of the government	**111.1**	**467.9**	**211.4**
Wakala deposits	94.9	372.3	158.8
Certificates of deposit	16.2	95.6	52.6

Source: Ministry of Finance and CBY.

While the current situation poses major challenges from the perspective of stable public financial management, the Ministry of Finance is committed to achieving fiscal balance in the medium term. This will entail strengthening its institutional and governance structures and enhancing its operational capacity to promote effective planning and timely implementation of a sound fiscal policy framework.

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CHAPTER IV: External Sector

The improvement in Yemen's political and security situation during 2019 played a fundamental role in boosting the performance of the national economy and, more specifically, the external sector. This boost was reflected, in turn, in the status of the balance of payments as exports increased and foreign earnings rose.

In contrast, the widening balance of payments deficit witnessed during CY 2020 reflects a significant deterioration of economic fundamentals due to the adverse effects of the COVID-19 pandemic and the related fall in oil prices. The sharp drop in foreign export earnings led to extensive utilization of available foreign reserves, which shrank precipitously, reflecting economic headwinds and further depreciated the national currency.

IV.1 Balance of Payments

Preliminary data indicate that Yemen experienced a deficit in the overall balance of payments of about USD 1.079 billion in 2020. This deficit was reflected in the USD 549 billion decrease in the Central Bank of Yemen's total foreign reserves in 2020, which fell to USD 853 billion — only enough to cover 1.2 months of imports. The deficit in the balance of payments is primarily due to the twin deficits in the current account and capital and financial account.

All balance of payment indicators reflected Yemen's challenging economic position heading into and during 2020. The deficit in the current account amounted to USD 1.001 billion in 2020, equal to 2.1% of GDP; the capital and financial account recorded a deficit of USD 78 million in 2020. The deficit of the total balance of payments at the end of 2020 was projected to be USD 1.079 billion.

Table IV.1 Balance of Payments Key Indicators

	2018	2019	2020
Current deficit, as % of GDP	-2.2	-4.4	-2.1
(Exports + Imports), as % of GDP	43.1	53.9	43.6
Exports, as % of GDP	5.4	6.5	4.3
Remittances, as % of GDP	19.2	18.8	16.2
Humanitarian assistance, as % of GDP	10.7	15.7	14.2
Imports, as % of GDP	37.7	47.4	39.3
Oil imports, as % of GDP	10.3	13.8	8.6
Food imports, as % of GDP	9.1	14.4	15.2
Gross international reserves (USD million)	2,718.6	1,402.1	853
Foreign reserves coverage in months of imports	3.7	1.6	1.2

Source: CBY.

The following section presents the primary indicators of the balance of payments in greater detail.

- **Current account**

As noted, the deficit in the current account (transactions related to goods and services, income, and current transfers) was USD 1.001 billion in 2020, equivalent to 2.1% of GDP and a year-over-year increase of 1.3%. The trade deficit improved significantly in 2020, totaling about USD 7.527 billion, compared to USD 9.226 billion in 2019.

- ***Exports of crude oil and gas***

Crude oil and gas exports declined in CY 2020 to USD 476 million due to political instability and worsening international economic conditions. This was a USD 625-million (5.8%) year-over-year decrease.

- ***Non-oil exports***

The value of non-oil exports increased in 2020 by 22.9% to USD 459 million, a bright spot for Yemen and a reflection of early-stage work underway to diversify the country's exports.

Yemen's dependence on imported goods is reflected in the sector's share of GDP, which is well above global averages. The value of imports amounted to around USD 8.462 billion in 2020, a year-over-year decrease of USD 2.238 billion or 20.9%.

- ***Imports of oil products***

At USD 1.863 billion, the value of oil derivative imports decreased by USD 1.252 billion, a 40.2% year-over-year decline against the 2019 figure of USD 3.115 billion.

- ***Food imports***

Food imports reflect a core part of Yemen's consumer spending. The bulk of basic goods are imported, which means that worsening global conditions place significant demands on consumers. At a total of USD 3.279 billion, the cost of food imports increased slightly — by 0.9% year-over-year — in 2020.

- ***Balance of income and transfers***

The net balance of income and transfers dropped to USD 6.526 billion in 2020, a year-over-year decline of USD 1.712 million, or 20.8%. The decline, in turn, reflected a decrease in both humanitarian assistance and worker remittances. The decline in remittances appeared to reflect regional instability and the economic difficulties faced by the Yemeni diaspora due to the effects of the pandemic.

- **Capital and financial account**

Yemen's capital and financial account recorded a deficit of USD 78 million in 2020, unchanged from 2019.

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Overall balance

The overall balance recorded a deficit of USD 1.079 billion in 2020, an increase of USD 13.2 million - or 1.2% - year-over-year. This was chiefly traceable to the high current account deficit, reflecting the decrease in the government's share of oil and gas exports due to the decline in oil prices in international markets. The balance of payments deficit was also exacerbated by the transformation of the capital account surplus into a deficit, which was a result of the increase in direct investment flows abroad and the decrease in other investments. This change, in turn, impacted the Central Bank's gross foreign reserves, which decreased by around USD 549.1 million during 2020. The deficit of the total balance of payments for 2020 is projected to increase by USD 14 million, or 1.3% year-over-year, and reach USD 1.079 billion (Table IV.2).

Table IV.2 Balance of Payments, Actual and Projected (USD million)

	2018	2019	2020
Exports of goods and services	**1,278**	**1,474**	**935**
Hydrocarbon	915	1,101	476
Other exports	363	373	459
Imports of goods and services	**8,844**	**10,700**	**8,462**
Hydrocarbon	2,427	3,115	1,863
Food	2,139	3,250	3,279
Other imports	4,278	4,335	3,320
Balance of goods and services	**-7,566**	**-9,226**	**-7,527**
Incomes	-12	-13	-27
Transfers	7,070	8,251	6,553
Remittances	4,500	4,250	3,500
Humanitarian assistance	2,507	3,553	3,026
Use of donor grants	63	447	27
Balance of incomes and transfers	**7,058**	**8,238**	**6,526**
Current account	**-508**	**-988**	**-1,001**
Capital inflows net	**-78**	**-78**	**-78**
Errors and omissions			
Overall balance	**-586**	**-1,065**	**-1,079**

Source: CBY.

Both the balance of payments deficit and the fiscal deficit are expected to widen further over the coming months as the effects of the COVID-19 crisis continue to reverberate. If current trends continue, the resulting deficits will lead to the additional weakening of the local currency. To combat this downward pressure and help stabilize the Yemeni economy, macroeconomic and structural policies that help revive private sector activity, boost export earnings, contribute to building up a buffer of foreign reserves, and limit debt monetization should be pillars of economic policy moving forward.

IV.2 Public External Debt

The lack of accurate data from public authorities and lending and donor countries on the size of the Republic of Yemen's external debt is a significant, ongoing barrier to efficient management of the nation's finances. To address this, a working group has been formed to collect data by communicating with lenders and helping restart the Debt Management and Financial Analysis System (DMFAS). The group comprises representatives of the Central Bank, the Ministry of Finance, and the Ministry of Planning and International Cooperation supported by USAID- and UK Aid-financed Pragma experts.

The most recent IMF estimates of the external public debt of Yemen indicate that the outstanding balance has increased by USD 23 million (0.3% year-over-year) to a total of USD 6.658 billion or about 29.5% of GDP for 2019. Due to installments and interest paid, the balance of the debt of the International Development Agency (IDA) decreased in 2019 to USD 1.535 billion, a USD 78-million (4.8%) drop. The IDA debt represents 23% of the balance of the outstanding external public debt in 2019. For 2020, total debt service to IDA amounted to USD 85.9 million, of which USD 74.8 million was principal repayments, and USD 11.1 million was interest payments.

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Appendix: Statistical Concepts and Methodology

The Quarterly Economic and Monetary Bulletin issued by the Central Bank of Yemen focuses on developments in and projections for global economic conditions as well as local economic and monetary developments. This Bulletin highlights the following topics in its four chapters:

I- Current Situation and Economic Prospects

The World Economic Outlook report issued by the International Monetary Fund is the most reliable resource for diagnosing the development of global economic conditions and their prospects. We rely on data from the Central Statistical Organization (CSO), if and/or as available, to diagnose the conditions of the national economy.

II- Money Aggregates and Monetary Policy Developments

The Central Bank of Yemen is the main source of the country's monetary and banking statistics. The General Department of Central Accounts provides the General Department for Research and Statistics with the balance sheet of the Central Bank, while the General Department for Banking Supervision provides the consolidated balance sheet of commercial and Islamic banks and their various activities.

The General Department for Research and Statistics collects these data and periodically prepares them for publication in accordance with the 2000 Monetary and Financial Statistics Manual issued by the IMF. The Central Bank treats the data it collected separately on the concerned institutions with strict confidentiality. The monetary data should be published in their final form, and these data are reviewed when any amendment is made related to the methodology used and the classification of the monetary data. The following is an introduction to the content of the most prominent terms included in the monetary tables:

- Banks: All commercial and Islamic banks operating in the Republic of Yemen that accept deposits.
- Banking system: The Central Bank of Yemen and the commercial and Islamic banks operating in Yemen.
- Government: The central government and the local councils.
- Social Security institutions: The General Authority for Insurance and Pensions, the General Organization for Insurance and Pensions, and the security and military retirement Institutions.
- Public institutions: Public (non-financial) institutions and companies in which the government has an interest and/or voting power.
- Non-governmental sector: All local sectors except the government and social security institutions.
- Resident: A natural or legal person who usually resides in Yemen or has been in Yemen for one year or more, regardless of the nationality of this person, with the exception of international bodies and institutions and foreign students who reside for more than one year.

- Non-resident: A natural or legal person who usually resides outside Yemen and/or who has not completed one year of residency in Yemen, regardless of the nationality of this person, except for a family or individual who has an economic center or interest in Yemen and has permanent housing even if this family or individual resides in Yemen intermittently.
- Net foreign assets: The external assets of the banking system minus the external liabilities of the banking system, based on the concept of residency. These are calculated for the Central Bank and each other bank from the external assets and liabilities included in their balance sheets
- Net government borrowing: The sum of the claims on the central government and local councils of the banking system, minus the total government deposits with the banking system.
- Claims on the non-governmental sector: The total claims on public institutions and the local private sector.
- Other items net: The sum of the other assets of the banking system minus the sum of other liabilities of the banking system, representing items that are not included in the definition of net foreign assets, net of government borrowing, and claims on the non-governmental sector from the Central Bank balance sheet and the consolidated balance sheet of commercial and Islamic banks.
- Currency issued: The cash issued by the Central Bank, consisting of cash circulating outside banks plus cash in banks' vaults.
- Money: Currency in circulation plus demand deposits in Rials with the banking system for both the (local) private sector and public institutions.
- Quasi-money: Both savings and time deposits in Rials and deposits in foreign currencies for all sectors mentioned in the definition of money with the banking system, in addition to deposits of social security institutions.
- Money supply: The sum of money plus quasi-money as well as the sum of net foreign assets, net government borrowing, claims on the non-governmental sector, and other items net.
- Banks' deposits with the Central Bank include the following:

    1) Reserve requirement: The minimum value that banks must keep with the Central Bank to meet the mandatory reserve ratio imposed on deposits with banks.

    2) Current accounts: Current accounts opened by banks with the Central Bank of Yemen in local and foreign currencies by banks. Certificates of deposit in Rials are not considered within these accounts.

- Bank advances credit granted by commercial banks in the form of loans, facilities, and discounted securities in addition to financing provided to Islamic banks for their investment operations.
- Loans and advances granted to the private sector by banks: Among others, direct loans and facilities granted by banks to the private sector and banks' investments in the shares of companies.

- Loans and advances granted to the government by banks: Agency deposits (alternatives to Islamic bonds), certificates of deposit government bonds.
- Exchange rate and monetary policy: The Central Bank of Yemen strives to stabilize the national currency exchange rate — a monetary anchor point — against major foreign currencies through effective monetary policy measures to achieve a macroeconomic balance between supply and demand and to curb price inflation. The General Department of Foreign Exchange and Exchange Affairs is the source of these data and procedures.

III- Public Finance

The Ministry of Finance is the source of the state's general budget data. In addition to these data, we rely on data from the Central Bank's General Budget Department, which include budget data on the following:

- Public revenues: Oil and gas revenues, direct and indirect tax revenues, including customs duties and non-tax revenues.
- Grants: All sums obtained as donations free of charge from allies and friendly countries.
- Public expenditures: Current expenditures including chapters 1, 2, and 3 according to economic classification, and development and capital expenditures containing chapters 4 and 5.
- Total balance: This represents the state's general budget and indicates the relationship between public revenues and overall public spending.

IV- External Sector

- Balance of payments: The Central Bank of Yemen Law No. (14) of 2000 makes the Central Bank responsible for collecting the balance of payments statistics. The Balance of Payments Department of the General Department for Research and Statistics is tasked with collecting the balance of payments data from various ministries and government agencies and through investment company surveys.
- External public debt: The Department of Foreign Loans and Aid at the Central Bank of Yemen is the source of external public debt data. In this regard, please note that the outstanding balance of the external debt represents the amounts withdrawn from external loans minus the installments paid plus the arrears on installments and interest.

Disclaimer

Beginning in August 2008, monetary and banking data were amended and updated in accordance with the 2000 Monetary and Financial Statistics Manual issued by the International Monetary Fund.

According to Article (45) of the Central Bank Law No. (14) of 2000, all information and individual data provided to the Central Bank is strictly confidential information and to be used only for statistical purposes, and no information may be published that reveals the financial conditions of any bank or financial institution.

The data in this Bulletin received from sources such as ministries and government agencies are preliminary data, subject to change.

We use projections made by the International Monetary Fund when and/or if no relevant national sources of data and/or information are available.

This Bulletin is issued by the Department of Research and Statistics at the Central Bank of Yemen – Aden.

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ECONOMIC RECOVERY & LIVELIHOODS PROGRAM (ERLP) - YEMEN

ANNEX 12

MODERNIZING THE CURRENCY MANAGEMENT FRAMEWORK AT CBY

March 2021

Prepared for the United States Agency for International Development, USAID Order # 72027920M00001

USAID/Yemen - Economic Recovery & Livelihoods Program (ERLP)

The Pragma Corporation, 116 East Broad Street, Falls Church, VA 22046

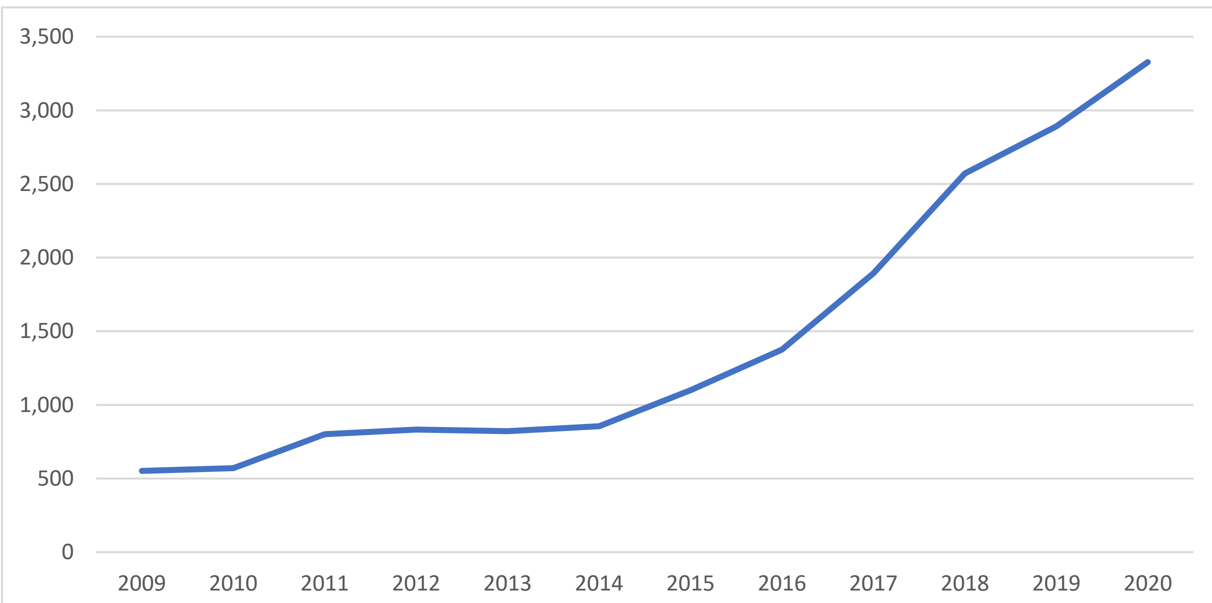
1. INTRODUCTION

The volume of currency in circulation in Yemen is substantial. Cash continues to play an essential role, given the virtual absence of non-cash means of payment and the limited development of financial intermediation processes in Yemen (reportedly, only about 5 percent of the population has access to the commercial banking system).

The currency issued by the Central Bank of Yemen (CBY) increased by 15.1 percent in 2020, reaching 3,327.5 billion YER, against 2,890.5 billion YER in 2019. To put this in perspective, the average growth rate over the post-conflict period (2014-20) was 22.7 percent, with the year 2017 experiencing the highest growth rate, at 37.6 percent.

It is worth noting that the increased cash injection has been used largely to finance government expenditures, mainly public salaries.

Chart 1. Growth in Currency Issues, 2009 - 20 (Rial billion)



Source: CBY

The ratio of cash issued to broad money has continued to rise each year in the post-conflict period, increasing to 48.4 percent in 2020, against 27.5 percent in 2014, confirming the dominant role of cash in the Yemeni economy.

2. ASSESSMENT OF THE CURRENT FRAMEWORK

The heavy cash reliance on increases the cash management burden facing the CBY. The bank has, in this regard, established a vault system in Aden and different branches under its control (the Aden vaults are better equipped and have greater capacity). Banknotes manufactured by printing companies are received by the Head Office, which then distributes them to vaults at the branches.

In general, as economic activity increases, the volume of monetary resources in circulation also needs to increase to meet the increased demand for money. In many countries, this can be accomplished - at least in part – electronically. The volume of cash in circulation should expand over time as the level of economic activity rises. In Yemen, which is almost purely a cash-based economy with very low levels of financial intermediation, the injection of monetary resources from the Central Bank is more or less directly translated into an equivalent amount of holdings of cash by private citizens. This should shift as the CBY moves to expand liquidity through monetary transactions with financial agents and/or institutions; rather than directly with citizens through cash or currency-based payments (for example, public salaries and wages). Presumably, this change should increase the money multiplier over time.

Hoarding appears to be prevalent in Yemen. This reflects the heavy reliance on cash and the steady weakening of the rial against foreign currency, and the sizeable amount of cash stockpiled by exchange houses.

Moreover, the ban on the newly printed banknotes in the region under Houthi control, implemented in January 2020, has limited the ability of the government to pay salaries in this area. This, in turn, has further complicated the conduct of monetary policy by raising the cost of financial transactions and widening the exchange rate gap between the Aden and Sanaa FX markets.

Shifting away from a cash economy will entail developing alternative means of payments (plastic money, ATMs, mobile money, etc.); restoring confidence in the national currency by anchoring expectations and stabilizing exchange rates and inflation; and building up an adequate stock of foreign reserves covering at least three months of imports. These are a major focus of the ongoing technical assistance provided by USAID/ERLP to the CBY.

3. RECOMMENDED ACTIONS

Before a rial note enters circulation, it must pass through four critical steps: design, order, production, and issuance. It is noteworthy that in Yemen, unlike in other countries, the bulk of this cash is put into circulation and withdrawn directly by the CBY. Commercial banks have a limited role due to the low level of financial intermediation, with again about 95 percent of the Yemeni population remaining unbanked. The CBY is also responsible for processing banknotes to ensure they are genuine and fit for use and withdrawing any banknotes that are not genuine from circulation. Notes that are genuine and still in good condition are recirculated.

As noted, the volume of cash in circulation has been growing rapidly, and demand for cash continues to rise owing to various factors. With cash increasingly used and the lack of electronic means of payments, accurate cash demand forecasts are vital for the CBY.

Such forecasts must consider projected economic growth, interest rates, exchange rates, price levels, and availability of non-cash means of payment. They also need to envisage cash demand in aggregate terms and the demand for individual denominations of banknotes. Thus, identifying the characteristics of cash transactions and organizing the production, storage, distribution, and destruction of cash is crucial to improving the quality of the supply.

In terms of denominations, the Yemeni public prefers bills in lower denominations, which have a comparatively limited circulation life. Because of this, large quantities must be printed each year to replace existing banknotes in circulation. In general, central banks have to regularly review the cost of banknotes in relation to their circulation life and determine their plans for phased coinization.

Decisions about denominations of banknotes are vital on two counts. First, such decisions must satisfy public demand. Second, by judiciously choosing the denominations, a central bank can lower printing costs by reducing the volume of banknotes in circulation. A robust framework for forecasting the demand for banknotes was set up based on data analytics. Efforts will be directed toward further improving this framework and undertaking cash planning activities next year.

According to the volume and denominations of cash needed to meet both private and public-sector demand, cash is distributed between the head office and regional vaults. Once the banknotes are stored in Aden vaults, the CBY organizes cash distribution between branches to meet the demand arising from local transactions; based on the cash in circulation in different regions. The CBY head office and branches issue distribution orders that specify the source and destination vaults and the denominations and quantities to be distributed. Once a vault receives a distribution order, it has a set period of time to fulfill the request. The related accounting tasks are carried out using the Money Issued and the Core Banking System (CBS).

The distance between the source and destination vaults now determines the means of transport selected. Transport of Rials is generally made by car or van over shorter distances (as is the case of distribution to Chabwa, Dhale, Lahij, or Taiz). For longer distances, cash is transported by plane (as is the case for Al Mukalla and Sayoun). The CBY, it should be noted, does not have armored cars, which may be risky despite the high degree of coordination with police forces to protect cash being transported.

To speed up the distribution of cash and cover the entire Yemeni territory, the transportation model should consider factors such as the itinerary, the denominations, and the total amount to be transported. To enhance safety, armored cars should be acquired for transporting cash across Yemeni governorates.

4. CONCLUSION

The key objectives of a well-functioning cash management system are to maintain public trust in the national currency and ensure there is sufficient cash to meet domestic demand from both the public and private sectors. Establishing robust frameworks and strategies for planning the production of banknotes is essential to avoid a cash shortage, given the increasing reliance on cash and the lack of electronic payment instruments in Yemen, and to preserve public trust in the national currency.

ECONOMIC RECOVERY & LIVELIHOODS PROGRAM (ERLP) - YEMEN

ANNEX13

THE IMPACT OF COVID-19 CRISIS ON THE FINANCIAL SECTOR: BANKING SECTOR SURVEY

March 2021

Prepared for the United States Agency for International Development, USAID Order # 72027920M00001

USAID/Yemen - Economic Recovery & Livelihoods Program (ERLP)

The Pragma Corporation, 116 East Broad Street, Falls Church, VA 22046

THE IMPACT OF COVID-19 CRISIS ON THE FINANCIAL SECTOR: BANKING SECTOR SURVEY

CONSOLIDATING LIQUIDITY

1. In response to the COVID-19 crisis, did the Central Bank authority reduce policy rates?
    - Yes, from …………% to ………… %
    - No, policy rates have not been changed.

2. In response to the COVID-19 crisis, did the Central Bank reduce the compulsory deposit ratio for banks?
    - Yes, the ratio was reduced from ……..% to ……. % over the past few months
    - No, it has not been reduced.

3. Are banks providing preferential short-term loans/credit lines for SMEs and other companies struggling to cover their operational costs? (Please include details relating to the terms of the loan and the nature of the target companies)
    - Yes (please provide details: ……………………………………………………………………)
    - No
    - This decision is being envisaged (please provide details: ………………………..…………….)

4. Have debt relief initiatives for **corporates** at risk of default been announced, including the waiver of interest, principal, or both? (Please include details)
    - Yes (please provide details: ……………………………………………………………...….)
    - No
    - This decision is being envisaged (please provide details: ………………..……………….…..)

5. Have debt relief initiatives for **individuals** at risk of default been announced? If so, which of the following are included? (Select as many options as appropriate)
    - Waiving interest on outstanding debts
    - Suspending credit score blacklists for delinquent clients
    - Waiving court cases for defaulting customers
    - Other (please specify ………………………………………………………………..…………)
6. Have all or most fees and commissions on electronic payments been waived?
    - Yes (please provide details: ……………………………………………………………....…)
    - No
    - This decision is being envisaged (please provide details: ………………..…………..……….)

BANK PERFORMANCE

7. Do you expect the bank revenues to be significantly affected by the COVID-19 crisis?
    - Yes, revenues will be significantly affected (please provide details: …………………………...)
    - Yes, but only marginally (Please provide details: ……………………………..……………...)
    - No

TECHNOLOGICAL CAPABILITIES

8. How much of the bank operations provided for **corporates** take place through online or phone banking?

> 30%	30-50%	50-70%	>70%

9. How much of the bank operations provided for **individuals** take place through online or phone banking?

> 30%	30-50%	50-70%	>70%

10. Did the bank relax any existing fees on e-operations in response to the COVID-19 crisis?
    - Yes
    - No

11. How do you assess the bank's technological capabilities?
    - The bank is fully capable of performing most of its activities electronically.
    - The bank is capable of performing only some of its activities electronically.
    - The bank is capable of performing very few of its activities electronically.

CONTINGENCY PLAN

12. What measures did the bank take in reaction to the COVID-19 crisis so far?
    - The bank has been open as usual while taking necessary precautions to protect clients and employees.
    - The bank has stopped or significantly decreased person-to-person operations and transferred to mostly electronic operations.
    - The bank had to stop operating for a short or an extended period of time due to the pandemic crisis (please provide details: ……………………………..…………………………)
13. Did the bank develop any plan to counteract the challenges imposed by the pandemic crisis?
    - Yes: (Please provide details: …………………………..……………………………….….)
    - No
    - The Bank is currently working on a contingency plan, but it has not been finalized yet.

MICROFINANCE

14. What is the size of the microfinance market in your country?
    - < 30% of total lending facilities are channeled through microfinance institutions.
    - 30-50% of total lending facilities are channeled through microfinance institutions.
    - > 50% of total lending facilities are channeled through microfinance institutions.

15. Have microfinance institutions been affected more significantly than conventional banks due to COVID-19?
    - Yes (Please provide details: ……………………………………………………………)
    - No

ECONOMIC RECOVERY & LIVELIHOODS PROGRAM (ERLP) - YEMEN

ANNEX 14

AMENDING CBY CIRCULARS

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USAID/Yemen - Economic Recovery & Livelihoods Program (ERLP)

The Pragma Corporation, 116 East Broad Street, Falls Church, VA 22046

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FIRST: PERIODIC CIRCULAR NO. (1) FOR THE YEAR 2012 ADDRESSED TO ALL BANKS OPERATING IN THE REPUBLIC AND THE SUBJECT MATTER OF INSTRUCTIONS AND SUPERVISORY CONTROLS REGARDING COMBATING MONEY LAUNDERING AND FINANCING TERRORISM.

The current circular does not include directives or measures directed to banks and financial institutions on how to deal with electronic crimes that they or their customers may be exposed to. For these reasons, the current circular should be amended to add rules for dealing with this type of crime, which has become a recurring pattern in the world of money laundering and financing terrorism. The additional rules should include the following:

I. CYBERCRIME PREVENTION POLICIES AND PROCEDURES

Banks and financial institutions must set policies and adopt measures and procedures relating to cybercrime prevention, which must – at a minimum – include the following:

A. GENERAL POLICIES REQUIRING THE FOLLOWING ACTIONS:

1. To analyze potential cybercrime risks and to follow up on the latest updates concerning cybersecurity technologies.
2. To allocate the necessary funds and budget to set and implement cybersecurity policy, systems, and rules.
3. To prepare insurance contracts that cover cybercrime risks.
4. To set and continuously update the plans needed for cybercrime prevention (for example, incident response plan, disaster recovery, and business continuity plan, and a first responder training plan).
5. To create a task force for cybercrime prevention.
6. To exchange information on cybercrime with the concerned parties inside or outside the bank/ financial institution.
7. To raise awareness among employees and customers regarding cybercrime prevention.
8. To monitor changes in employees' habits and behavior, particularly employees having elevated privileges to access IT systems.
9. To be vigilant and cautious when selecting contractors for tasks related to IT systems and making sure that these contractors do not outsource these tasks to less reliable parties.

B. TECHNICAL PROCEDURES ENCOMPASSING THE FOLLOWING ACTIONS:

1. To adopt a minimum two-factor authentication technique, particularly to check the right of outside users to access the bank/financial institution system.
2. To use end-to-end and high-grade encryption for crucial data to avoid the interception, loss, and tampering of such data.
3. To adopt tight rules for filtering incoming e-mails and for controlling external access to mailboxes.
4. To update the systems of all computers and check the safety of the computers assigned for the external use of the bank/financial institution's employees.
5. To perform ongoing penetration tests to detect any possible vulnerabilities in the network.
6. To monitor network traffic to detect any unusual behavior, whether through the quality or the number of sent batches.
7. To check and monitor data integrity to detect any illegal tampering with data and to trace back to identify the source of the illegal access to such data.

II. FINANCIAL CYBERCRIME PREVENTION PROCEDURES

A. As far as each is concerned, banks and financial institutions must adopt, in general and on their own responsibility, the appropriate administrative, technical, and judicial procedures that enable them to remain vigilant and monitor and combat financial cybercrime.

In particular, they must set specific internal systems and procedures regarding the execution of funds transfer orders received electronically (through e-mail, e-banking, etc.):

1. To incorporate in the contract signed with the customer-specific provisions that determine, apart from the e-mail, other means of communication with the customer (such as phone calls), to validate transfer orders received electronically, provided any change in these means of communication takes place only through the contracting parties' written agreement.
2. To inform the customer of the risks associated with transfer orders sent through e-mail, to advise him/her to use safer means, and to obtain his/her risk-bearing written consent.
3. To provide the customer with the "Guidelines for Individuals and all other Non-Financial Institutions and Entities."
4. To require customers to promptly report any cybercrime whenever they become aware, detect, or are notified that they have been, or were likely to have been, victims of cybercrime.

B. Every bank and financial institution is required - whenever they become aware, detect, or are notified that they have been the victim or that any of their customers have been the victim of a financial cybercrime - to take prompt and effective actions that include:

1. To provide both the correspondent bank and the beneficiary bank/financial institution with all relevant information and request the canceling and refund of the funds transfer.
2. To communicate to the FIU any relevant information and correspondence, including technical information about:
   - The customer's IP address or the IP address used to send the suspicious funds transfer orders.
   - The name of the Internet Service Provider (ISP) through which the suspicious funds transfer orders were sent.
   - The name of the ISP is used for unauthorized access to the customer's account through electronic banking.
3. To advise the customer to file a report or a judicial complaint before the competent authorities.

SECOND: CIRCULAR NO. (2) FOR THE YEAR 2012 ADDRESSED TO ALL BANKS OPERATING IN THE REPUBLIC OF YEMEN ON THE SUBJECT OF THE BASIC INDICATORS OF SUSPICION OF MONEY LAUNDERING AND TERRORIST FINANCING

This circular deals with indicative indicators of money laundering or terrorist financing operations, but it does not include indicators related to the operations of insurance companies that may be used for suspicious transactions. This circular also does not deal with indications of the crime of sexual exploitation, which Yemeni law considers one of the predicate crimes associated with the proceeds from money laundering.

I. INDICATORS FOR SEXUAL EXPLOITATION CRIME

The following shall indicate a reasonable potential for the existence of the crime of sexual exploitation:

1. The financial dealings of women and young age groups are not commensurate with the nature of their declared activity, or their transfer and receipt of money are not commensurate with that activity.
2. The financial transactions of some legal entities, such as beauty salons, are not consistent with the nature of their declared activities; or where foreigners control the accounts of these entities.
3. The existence of foreign currency remittances from some rich countries to people in poor villages without an economic justification.

II. INDICATORS OF HUMAN TRAFFICKING AND MIGRANT SMUGGLING:

The following shall indicate a reasonable potential for the existence of the crime of human trafficking or migrant smuggling:

1. The nationalities of the client and the account holder are different, especially when the foreign person resides in or is a national of a country known for human trafficking or migrant smuggling.
2. The opening of an account for a foreign worker or student, where the employer or employment agency is the custodian of the account or always accompanies the account holder to the bank.
3. Different people have the same phone number, address, and workplace.
4. An attempt to open an account using forged documents, especially by a foreigner.
5. The client's documents are expired or otherwise not valid, especially the client's residency visa in the country where he desires to open the account, exchange a transfer from it, or cash a check.
6. A third party translates or gives the account holder instructions during withdrawal and deposits and maintains possession of the account holder's identification documents.
7. Frequent external financial transfers with no clear business or legal purpose, especially to countries known for human trafficking activity (review the lists published by the US State Department).
8. Multiple clients who are not related send transfers to the same beneficiary.
9. Foreign persons with different nationalities who share the same address conduct similar financial transactions.
10. Frequent use of prepaid cards by someone who works in Yemen who refills them from different places inside Yemen.
11. The use of the same credit card to pay for the entry visas of different people.
12. When a person engages in transactions involving the purchase or sale of foreign currencies but does not identify the source of the currencies or the transactions' commercial purpose.
13. Financial dealings with recruitment agencies in countries known for human trafficking.
14. Failure of foreign workers to transfer their salaries to their home countries.

ECONOMIC RECOVERY & LIVELIHOODS PROGRAM (ERLP) – YEMEN

ANNEX 15

AML/CFT ONSITE INSPECTION MANUAL

March 2021

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USAID/Yemen - Economic Recovery & Livelihoods Program (ERLP)

The Pragma Corporation, 116 East Broad Street, Falls Church, VA 22046

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CHAPTER ONE: GENERAL FRAMEWORK FOR INSPECTIONS

1.1 MAIN PROVISIONS RELATED TO AML/CFT INSPECTIONS.

The main legal provisions governing AML/CFT inspections of supervised entities are the following:

- Law: No.1 of 2010 and its amendments
- Regulations: Presidential Decree No. 2 of 2014
- Circular: Circular addressed to banks, and FIs dated 16-04-2019

1.2 ROLE OF BANK SUPERVISION DEPARTMENT

The Bank Supervision Department (BSD) is the internal body of the Central Bank of Yemen (CBY) in charge of the planning and execution of the CBY's obligations to supervise banks and other entities (referred to herein as "supervised entities"). In particular, the BSD is entrusted with conducting AML/CFT inspections of supervised entities, preparing inspection reports, and requiring the supervised entity to take any necessary remedial actions and/or corrective measures in accordance with specific timelines.

AML/CFT Inspections complement the BSD's and FIU's ongoing supervision activities. The BSD maintains a current and in-depth profile of each supervised entity by performing ongoing offsite supervision,which mainly relies on the information reported by the supervised entity, and by conducting onsite inspections to check, among other things, the accuracy and completeness of the information reported. The BSD is responsible for ensuring that common, high-quality standards are applied in all inspections.

1.3 DECISION-MAKING PROCESS FOR AML/CFT INSPECTIONS

The BSD's decisions to conduct onsite AML/CFT Inspections are taken based on a formal plan, which is developed and adopted at least annually and adjusted during the year. While planned AML/CFT inspections are part of the BSD's regular activities, AML/CFT inspections without prior notification to the supervised entity are triggered in reaction to an event or incident, including a Suspicious Transaction Report (STR) received from the Financial Intelligence Unit, that requires immediate supervisory action.

1.4 OBJECTIVE OF AN ONSITE AML/CFT INSPECTION

An onsite AML/CFT inspection aims to provide an in-depth analysis of the various AML/CFT-related risks, risk-based approach (RBA) internal control systems, business models, and governance of a supervised entity. Such inspections are conducted within a predefined scope and timeframe at the premises of the supervised entity. However, if deemed necessary, the scope and timeframe of the inspection can be changed while the inspection is in progress. More specifically, an onsite AML/CFT inspection aims to:

- Examine and assess the level, nature, and features of the inherent AML/CFT risks that the entity is exposed to, including its AML/CFT risk culture; and
- Examine and assess the appropriateness and quality of the supervised entity's AML/CFT-related RBA, management processes, corporate governance, and internal control framework in the light

of the nature of its business and risks, focusing, in particular, on detecting weaknesses or vulnerabilities.

- On-site AML/CFT inspections must be:
    - **Risk-based,** applying generally accepted risk management concepts and techniques while prioritizing efforts where the higher risk or a lower level of control is perceived within the supervised entity.
    - **Proportionate,** commensurate with the size, activities, and AML/CFT risk profile of the supervised entity. The implementation of this principle will facilitate the effective allocation of onsite resources.
    - **Intrusive,** as the evolution of supervisory approaches increasingly require AML/CFT inspectors to delve more deeply into the concerned activities, with more judgment-based evaluations and a better understanding of the risk profile and business activities of a supervised entity.
    - **Forward-looking,** looking beyond present or historical figures to anticipate potential future impacts.
    - **Action-oriented,** aimed at specifying the remedial actions and/or corrective measures to be taken by the supervised entity in accordance with prescribed timelines.

CHAPTER TWO: PLANNING FOR INSPECTION

2.1 THE INSPECTION PLAN

An annual inspection is prepared for combating money laundering and terrorist financing operations. Such plan shall be: (i) based on the previous evaluation and classification of financial institutions; and (ii) submitted to the FIU head office within sixty calendar days following the end of each calendar year.

2.1.A PRE-PLANNING PROCESS

Before the inspection team enters the premises of the supervised entity, there should be preliminary discussions with management as part of the pre-planning process. In these discussions, management is asked to gather the information necessary for the inspection. In appropriate cases, where it is deemed necessary to maintain the element of surprise, management will not be given advance notice of the inspection. In those cases, the inspectors will contact management and ask for information only after they have entered the premises of the supervised entity. Planning the scope and other aspects of the inspection starts with gathering and analyzing the following information:

- The supervised entity's AML/CFT risk assessment
- Prior inspection reports and correspondence between the supervised entity and the BSD
- Internal and external audits or other independent reviews
- Offsite monitoring information
- Information received because of the supervisory request letter.

2.1.B PERIODIC INSPECTIONS

An AML/CFT supervisor of the BSD must first organize and develop the inspection program. Before an efficient and comprehensive AML/CFT inspection program can be developed, several issues must be considered, including – but not limited to – the following:

- An annual plan providing for the AML/CFT inspection of all supervised entities is prepared and then executed within the concerned year.
- Regular inspections are based on a Risk-Based Approach (RBA)

RBA uses the supervised entity's risk profile as the basis both for reviewing a supervised entity's AML/CFT compliance program and for determining the effectiveness of its AML/CFT policies and procedures. RBA verifies whether systems function as designed by using transaction testing. By adopting an RBA, inspectors can focus on those supervised entities that are at high risk for money laundering and financing of terrorism (ML/FT). Larger, more complex supervised entities involved in cross-border transactions and those that focus on private banking are examples of likely candidates for additional scrutiny.

The frequency of inspections varies based on several factors such as supervised entity size, complexity, rating, and risk profile. A supervised entity operating with few or no problems is rated as either a low or medium risk and should be inspected every 12-24 months. A supervised entity with a high-risk profile should be inspected every 12 months.

The key stages in the risk assessment process are:

1. Determining the significant activities undertaken by a supervised entity.
2. Assessing the inherent risks and adequacy of corresponding risk management systems and internal controls for each of these activities.
3. Assessing the financial strength of the supervised entity and the adequacy of the Board and Senior Management oversight of its businesses, including AML/CFT.
4. Determining the overall risk rating for the supervised entity and, consequently, the supervisory measures needed.

To determine the risk profile of a supervised entity, information should be gathered from several sources, both onsite and offsite:

1. The entity's regulatory returns, including financial statements.
2. The entity's internal policies, procedures, and its self-assessed risk profile.
3. The entity's internal and external audit reports.
4. For foreign supervised entities, information from home country supervisors.
5. Past inspection reports.
6. Copies of the supervised entity's suspicious transaction reports (STRs) submitted to the Financial Intelligence Unit (FIU).

Based on its RBA, supervised entities are placed in distinct supervisory categories and are thus differentiated in terms of scope and intensity of supervision.

- The supervised entity is notified of the date of the inspection. The AML/CFT inspectors notify the entity's management in advance of the proposed inspection and the specific date that it will begin. During the notification, the management of the entity is also provided with the request letter so that the required information will be available for the inspectors to analyze before or during the visit. Inspectors can also request specific materials for an AML/CFT inspection, either beforehand or at the beginning of the visit

- The BSD's AML/CFT Unit studies the files of all supervised entities and reviews all their activities.

- The supervised entity is officially notified of the inspection result and - in the event violations of AML/CFT controls are found – the remedial actions and corrective measures it is required to implement and the timeframe for doing so.

- The BSD makes a second visit to the company to ensure that violations have been addressed and that the entity is now in compliance with all AML/CFT requirements. If the entity is still out of compliance, the BSD submits a comprehensive report of the matter and the proposed sanctions and penalties to the CBY Governor.

2.1.C SURPRISE OR UNANNOUNCED INSPECTIONS

- A Surprise or Unannounced Inspection involves the following:
    - It is based on a proposal from the BSD's AML/CFT Unit in the event of a **complaint** from FIU's inspectors or the supervised entity's external auditor.

- The same periodic inspection procedures are taken, considering that the supervised entity is not notified of the inspection date.
- In the event that a violation other than the subject of the complaint is discovered, it shall be investigated immediately.
- When qualifying the supervised entity in the annual inspection plan, the following should be taken into consideration:
  - The degree of financial and non-financial risk of the supervised entity.
  - The most recent inspection report and its findings.
  - The extent of the commitment of the supervised entity to send periodic data.
  - The quality of the notifications sent to the FIU.

2.2 THE STAGE BEFORE INITIATING THE INSPECTION

2.2.A OVERVIEW

- The pre-inspection phase is the main driver for the next stages, through which the inspector can determine the areas of his inspection as well as the areas that needed more attention when examining.

2.2.B OBJECTIVES

- Identify the risks of non-compliance that may be exposed to the supervised entity to be inspected because of non-compliance with the AML/CFT law and the regulatory publications issued in this regard.
- Identifying the gaps of the supervised entity in the system of combating money laundering and terrorist financing, and whether it responded to correcting them.

2.2.C INSPECTION PROCEDURES

Before starting the inspection of the supervised entity, the inspection must be planned, as a set of previous data and reports on the supervised entity is analyzed as follows:

1. Review the previous inspection report on the supervised entity to be inspected to find out the following:
   - The structure of the report.
   - The period covered by the report.
   - The sample covered by the previous inspection.
   - What is included in the report of data on the supervised entity and its activities.
   - The findings of the inspection.
   - Recommendations reached by the report.

2. Correspondence exchanged with the supervised entity regarding the report to determine the extent of its response to the recommendations of the previous inspection.
3. The extent to which the supervised entity has corrected the observations of the previous inspection.

Exchange of information with office supervision regarding the following:

1. General data about the supervised entity to be inspected, such as:

- Senior department data.
- The supervised entity branches and their geographical distribution.

2. The extent of compliance of the supervised entity to be inspected with the supervisory rules and instructions issued in the matter of combating money laundering, and among this information and data are the following:

    - A copy of the system applied by the supervised entity to identify the identity and legal status of clients and real beneficiaries of natural and legal persons.
    - Details of the compliance officer and who replaces him.
    - Customer classification data according to the degree of risk.
    - Customer data update rates.
    - Training courses for the employees of the supervised entity in the field of combating money laundering, distributed according to the branches of the supervised entity.

3. Coordination with the Financial Information Collection Unit regarding the compliance of the supervised entity to be inspected with the following:
    - Notifying the FIU of operations suspected of involving money laundering
    - The quality of the notifications received from the FIU from the supervised entity.
    - The response of the compliance officer in the supervised entity to provide the unit with the data and information it requires on the operations suspected of involving money laundering.
    - Report on the activities of the supervised entity in the field of combating money laundering and terrorist financing
    - See the reports of the company's external auditor to determine whether they include an assessment of money laundering risks in the supervised entity to be inspected.
    - Obtaining any information that may be available through open sources about any money laundering cases that the supervised entity may have been exposed to.

2.2.D FINALIZING THE INSPECTION REPORT:

Having completed the onsite portion of the inspection, the inspectors must then prepare the inspection report, which describes the findings of the on- and offsite supervisory analyses. The information should be presented to the supervised entity both in writing and through discussions with management. The supervisor should also meet periodically with senior management and the board to discuss the results of supervisory inspections, external audits, and the progress that has been made to correct any deficiencies.

The report contains the conclusions of the inspection team and should include comments, and suggested corrective measures, and a supervisory response based upon the findings. The inspectors should provide a general conclusion about the adequacy of the supervised entity's AML/CFT compliance program and should identify both those procedures that have been carried out and any violations and deficiencies. Having formulated their conclusions, the inspectors should recommend corrective action.

2.2.E CONCLUSIONS

When developing conclusions for the inspection report, the inspectors should accumulate all pertinent findings from the actual AML/CFT inspection procedures and determine whether:

- The AML/CFT compliance program is effectively monitored and overseen in relation to the supervised entity's risk profile.
- The board of directors and senior management are aware of AML/CFT regulatory requirements, effectively oversee AML/CFT compliance, and make commitments to implement any necessary corrective action.
- AML/CFT policies, procedures, and processes are adequate to ensure compliance with applicable laws and regulations and appropriately address high-risk operations involving products, services, customers, and geographic locations.
- Internal controls ensure compliance with national laws and regulations and provide sufficient management of risk, especially for high-risk operations involving products, services, customers, and geographic locations.
- Independent testing is appropriate to establish compliance with required laws, regulations, and regulatory policies.
- AML/CFT compliance officers are competent and have the necessary resources and authority to carry out their responsibilities.
- Personnel is sufficiently trained to adhere to legal, regulatory, and policy requirements.

2.2.F CAUSES OF DEFICIENCIES:

Inspectors should also determine the underlying cause of deficiencies in policy, procedure, or process. These deficiencies may be the result of several factors, including, but not limited to, a situation in which:

- Management has not assessed or has not accurately assessed the supervised entity's AML/CFT internal rules.
- Management is unwilling to create or enhance policies, procedures, and processes.
- Management or employees disregard established policies, procedures, and processes.
- Management or employees are unaware of or misunderstand regulatory requirements, policies, procedures, or processes; and
- Changes in internal policies, procedures, and processes are poorly communicated.

2.2.G STRUCTURE OF THE REPORT

The inspector should be guided by three major concerns:

- Compliance with legal and regulatory provisions
- Adequacy of organizational resources and monitoring support, especially information technology (IT) support
- Performance of the in-house AML/CFT program

Recommended format:

- Introduce the supervised entity (organization, commercial activity, branches, and so forth).

- Describe how it is organized and its internal AML rules (client screening process, KYC, and recordkeeping).
- Present and assess the surveillance and unusual-transaction detection system.
- Give a description and appraisal of the internal monitoring mechanism.
- Assess the performance and accuracy of the STR process.

CHAPTER THREE: GENERAL AML/CFT CORPORATE POLICIES

3.1 AML/CFT POLICIES

3.1.A OVERVIEW

The supervised entity's policy for combating money laundering is the reference that each company sets to draw its workers the foundations and frameworks that enable combating money laundering and terrorist financing in accordance with local and international requirements in that context.

3.1.B OBJECTIVES

Ensure that the supervised entity develops a comprehensive and effective anti-money laundering policy that complies with the requirements of the law and regulatory publications.

3.1.C INSPECTION PROCEDURES

- Obtaining a copy of the supervised entity's AML/CFT policies
- Ensure that the policies are approved by the competent authority in the supervised entity.
- The letter is requested according to which the policies were circulated to the branches of the supervised entity.
- Within the framework of examining branches, it is ascertained that those policies are in place.

3.2 COMPLIANCE OFFICER

3.2.A OVERVIEW

The compliance officer is responsible for ensuring the implementation of the AML / CFT controls and coordinating with the Financial Information Collection Unit in this regard.

3.2.B OBJECTIVES

- Ensure that the supervised entity appoints a compliance officer.
- Ensure that the following conditions apply to the AML Compliance Officer:
  - To be of a high standard of employment.
  - To have the appropriate academic qualifications and sufficient practical experience.
  - To be free to perform his work.
- Ensure that the supervised entity defines clear terms of reference for the compliance officer responsible for combating money laundering.
- Ensure the availability of complete confidentiality of all procedures for receiving reports of extraordinary operations and reports of suspicion.
- Ensure that the compliance officer enjoys complete independence.
- Ensure that the office and field supervision of the compliance officer responsible for combating money laundering is committed to the commitment of all branches of the supervised entity to the application of the provisions of laws, supervisory publications, and the internal regulations of the supervised entity in the matter of combating money laundering and terrorist financing.
- Ensure that the compliance officer cooperates and coordinates with the competent department of the supervised entity in the matter of setting training plans for the employees of the supervised entity in the field of combating money laundering and proposes the necessary training programs to implement these plans and follow up on their implementation.

- Ensure that the compliance officer prepares a periodic report - at least once a year - on the activities of the supervised entity in the field of combating money laundering.

3.2.C INSPECTION PROCEDURES

- Reviewing the decision to appoint the compliance officer.
- Seeing the benefit of the FIU to appoint the compliance officer and whoever replaces him during his absence.
- Examine the CV of the compliance officer to ensure that he has the appropriate academic qualifications and sufficient practical experience.
- Request for a statement - for the last two years - of the training programs that the compliance officer has obtained to ensure that he has undergone the appropriate training.
- Request a copy of the approved organizational structure of the company, which shows the organizational position of the compliance officer, in order to ensure his independence.
- Examine the approved job description and/or the responsibilities of the compliance officer in the supervised entity to ensure that the supervised entity defines detailed and clear terms of reference that include the following:
  - Receive information on unusual and suspected operations.
  - Examine these processes.
  - Take a decision regarding notifying or storing the unit.
  - That the notification is responsible.
  - The right to submit reports to the higher department of the supervised entity in a way that helps increase the efficiency and effectiveness of anti-money laundering systems.
- Ensure that the compliance officer takes decisions regarding the preservation of operations that he finds that there is no suspicion regarding them, and the decision must include the reasons on which he relied on preservation.
- Ensure that the compliance officer notifies the FIU of operations that involve suspicion of money laundering.
- Ensuring that the compliance officer proposes what he deems necessary to develop and update the supervised entity's policy in the field of combating money laundering and the systems and procedures followed by the supervised entity in this field, with the aim of increasing its effectiveness and efficiency, and keeping pace with local and global developments.
- Requesting and examining the office follow-up reports that the compliance officer receives from the control officials in the branches.
- Requesting and reviewing the extent of implementation of the plans that the compliance officer puts in place for field supervision of the branches.
- Requesting and examining the field visit reports carried out by the compliance officer in field supervision at the branches in order to determine the following:
  - The extent to which these reports cover.
  - Deficiencies addressed in the reports.
  - Branches' responses and comments on what was stated in the field visit reports.
  - The extent of the follow-up of the branches to complete the field visit reports.
- Requesting the plans suggested by the compliance officer for training in the field of combating money laundering, provided that what has been implemented of those plans are compared, as well as the comments of the compliance officer on what has been implemented.
- Reviewing the plans or proposals that the compliance officer may put in place to promote anti-money laundering in the supervised entity.

- Request for the last three periodic reports prepared by the compliance officer in the framework of combating money laundering.
- Ensure that the reports include the following:
    - The efforts undertaken during the reporting period regarding extraordinary and suspicious operations and actions taken in this regard.
    - The weaknesses and proposals that the supervised entity's internal systems provide for combating money laundering in the supervised entity and proposals to avoid them, including reports on extraordinary operations made available by the supervised entity's internal systems.
    - Amendments that have been made to the policies, internal systems, or procedures of the supervised entity regarding combating money laundering during the period covered by the report.
    - Demonstrate the extent of commitment to implement the plans set up during the reporting period for general office and field supervision of the various branches of the supervised entity to verify its commitment to implementing the provisions of laws, supervisory publications, and internal regulations in the matter of combating money laundering.
    - Presenting the plan for general office and field supervision of the supervised entity branches during the next reporting period.
    - A detailed statement of the training programs that were held for the employees of the supervised entity in the field of combating money laundering during the aforementioned period.
- Within the framework of reviewing the work of anti-money laundering officials in the visited branches, the following is ascertained:
    - Obtaining a copy of a decision to appoint an anti-money laundering officer at the branch.
    - The extent of a conflict between the day-to-day operational work of the anti-money laundering officer in the branch and his activity in the field of combating money laundering.
    - Review the approved job description and/or the responsibilities of the compliance officer mentioned in the anti-money laundering guide applicable to the supervised entity to ensure that detailed and clear terms of reference are defined for the person responsible for combating money laundering in the branches.
    - Request a sample of the extraordinary transaction reports to ensure that the branch's anti-money laundering officer reviews and signs them, as well as how they are kept.
- Review the files of suspected cases, the party in charge of combating money laundering at the branch, to find out the following:
    - Suspicion cases sent to the compliance officer.
    - Cases of suspicion that the anti-money laundering officer at the branch saved after coordination with the compliance officer and reviewing the reasons for safekeeping and the documents supporting that preservation.
- Suspicion cases that are still under investigation, and that:
    - Justifications for not making a decision.
    - How to follow them.
    - The time span of its existence under study.

3.3 A GUIDE TO ANTI-MONEY LAUNDERING PROCEDURES

3.3.A OVERVIEW

The Anti-Money Laundering Procedures Manual is the detailed practical reference in which the responsibilities and obligations of those working in combating money laundering are clarified, as well as the detailed procedures that must be followed to combat money laundering and in line with the supervised entity's policy in that framework.

3.3.B OBJECTIVES

Ensure that the supervised entity develops an integrated guide for detailed work procedures for combating money laundering, commensurate with the supervised entity and its clients and the activities it provides.

3.3.C INSPECTION PROCEDURES

- Obtaining a copy of the anti-money laundering procedures manual applicable in the supervised entity.
- Ensure that the manual of anti-money laundering procedures in force in the supervised entity is approved by the competent authority of the supervised entity.
- Ensure that the manual of anti-money laundering procedures applicable in the supervised entity includes what is consistent with the established policy, and as a minimum, it must include the following:
    - A detailed description of the measures to be taken by the departments of the supervised entity to combat money laundering.
    - Accurate identification of duties and responsibilities
    - Guiding criteria for suspicion.
    - How to spot abnormal processes.
    - How to notify the head office compliance officer.
    - Detailed data for customer care.
- Ensure that the policy and the work procedures manual are updated on an ongoing basis and in line with global and local developments, as well as developments within the supervised entity.
- To ensure that the work procedures manual is applied to all branches of the supervised entity inside and outside the country, the following must be followed:
    - Request for the book under which the policy, the guide, and their updates were circulated to the branches of the supervised entity.
    - Within the framework of examining the branches, it is ascertained that the policy and evidence and their updates are in place.

3.4 KEEPING RECORDS AND DOCUMENTS

3.4.A OBJECTIVES

Ensure that the supervised entity maintains all records, documents, and reports in a secure manner for periods of not less than five years from the date of the transaction.

3.4.B INSPECTION PROCEDURES

- Ensure that the supervised entity maintains backup copies of records and documents elsewhere.

- Reviewing whether the method of preservation is characterized by ease and speed of retrieval of the records and documents kept so that any data or information requested is provided adequately and without delay.
- Ensure that the supervised entity maintains records and documents for at least five years.
- Review the following:
  - Records and documents related to transactions with clients provided that it includes sufficient data to know the details of each operation separately.
  - Reports of extraordinary operations and what is useful for reviewing these reports.
  - Records and documents of suspicious cases that a decision was taken to keep by the compliance officer.
  - Records and copies of documents related to suspicious operations provided that they include copies of the notifications of operations that have been sent to the FIU and the relevant data and documents.
  - Records of training programs, to include data on all programs that employees of the supervised entity obtain in the field of combating money laundering.

3.5 INTERNAL CONTROL PROCEDURES

3.5.A OVERVIEW

The supervised entity shall develop appropriate internal systems for the proper implementation of legislation and supervisory publications, including the policies and procedures that must be available to combat money laundering operations, with reviewing these systems periodically to determine the extent of commitment to their application, discovering weaknesses or deficiencies in them, and taking the necessary measures to avoid them.

3.5.B OBJECTIVES

- Ensure that the supervised entity has set up internal systems to combat money laundering operations while monitoring its commitment to them.
- Ensure that the internal systems, policies, and procedures followed work to discover unusual operations.

3.5.C INSPECTION PROCEDURES

- Ensuring the mechanism applied by the supervised entity to verify compliance with the internal systems established to combat money laundering operations.
- Examining the office and field follow-up reports prepared by the compliance officer for the various branches of the supervised entity.
- Ensure that the internal audit function, in coordination with the compliance officer for combating money laundering, examines the systems in place to ensure their efficiency and effectiveness in combating money laundering operations and proposes what is necessary to complete what is in it in terms of deficiency or what it needs in terms of updating and developing.
- Reviewing the manual of inspection work procedures in relation to combating money laundering to stop the scope of an internal inspection in relation to combating money laundering and terrorist financing.

- Examining the internal inspection reports on branches in the field of combating money laundering and reviewing the branches' responses to them and the extent of the existence of follow-up by the internal inspection of what the previous reports concluded.
- Ensuring the availability of a computer system with the supervised entity regarding combating money laundering that works on the accurate detection of unusual or suspicious transactions according to the data available to the supervised entity on its clients, as well as the movement of transactions on clients' accounts.
- Reviewing the proportionality of the boundaries of extraordinary operations with the spread of the supervised entity, its branches, and the number of its clients.
- Reviewing the periodic reports that the compliance officer prepared and presented to the board of directors of the supervised entity in the context of combating money laundering.
- A statement of the reports of extraordinary operations made available by the supervised entity's internal systems.
- Ensure that the reports of extraordinary operations include the following:
  - Periodic reports of extraordinary operations.
  - All types of transactions that take place on client accounts.
  - Cumulative reports for recurring operations (weekly, monthly, quarterly).
  - That the reports of extraordinary operations cover the operations that take place on clients 'accounts through any branches other than the one that maintains clients' accounts.

3.6. NOTIFICATION PROCEDURES

3.6.A OVERVIEW

Article 13 of the Anti-Money Laundering and Terrorism Financing Law in 2010 obligated supervised entities and certain professions to notify the FIU of operations suspected of involving money laundering.

3.6.B OBJECTIVES

- Ensure that there are clear, detailed, and updated criteria for suspicion of operations.
- Ensure that the supervised entity has procedures in place regarding notification, whether from the employees of the supervised entity to the compliance officer or from him to the Financial Information Collection Unit.
- Verifying the extent of familiarity and awareness of the employees of the supervised entity with the notification procedures and rules.

3.6.C INSPECTION PROCEDURES

- Ensure that there is a periodic review of suspicious transactions.
- Ensure that the notification procedures in place in the supervised entity are confidential.
- Review the internal notification form applicable to the supervised entity.
- Verifying the existence of a record showing the suspected cases, including a description of all their details, the reasons for suspicion, as well as the reasons for preservation in the cases that have been saved.
- Examine the record of suspicious cases and copies of documents related to them to ensure that all information about them is available and the extent to which they are properly studied.
- Verify that all copies of the suspect documents are properly kept in private files.

3.7 TRAINING

3.7.A OBJECTIVES

- Ensure the development and implementation of training plans in the field of combating money laundering.
- Ensure that the training is comprehensive for the employees concerned with receiving cash or monitoring accounts and their reports in all the supervised entity's units.
- Ensuring the correctness of the data submitted to the FIU regarding what has been achieved in training employees of the supervised entity.

3.7.B INSPECTION PROCEDURES

- Reviewing plans for training in the field of combating money laundering to ensure the following:
  - There is coordination and follow-up with the compliance officer of the supervised entity in this regard.
  - That training is comprehensive for employees.
  - Ensure that the supervised entity is committed to sending the required office data in this regard.
  - Ensuring the diversity of training bodies and not being limited to internal training without external training.

CHAPTER FOUR: CUSTOMER DUE DILIGENCE PROGRAM

4.1 THE POLICY OF CUSTOMER ACCEPTANCE

4.1.A OBJECTIVES

- Verify that the supervised entity has set an appropriate policy for customer acceptance.
- Verify that the customer acceptance policy takes into account especially high-risk clients.

4.1.B INSPECTION PROCEDURES

- Obtaining a copy of the supervised entity's policy for combating money laundering to accept clients, which may most likely be part of the supervised entity's policy to combat money laundering.
- Ensure that the policy is approved by the Board of Directors.
- Ensure that the supervised entity's policy for accepting clients considers the following:
    - The nature of the client's activity.
    - Nationality of the customer.
    - Associated operations.
    - Geographical location
    - Indicators related to the degree of risk.
- Reviewing the customer acceptance policy of the supervised entity to ensure its suitability with the clients of the supervised entity, its clarity, and its binding on all employees through specific work procedures.
- Ensure that the supervised entity's policy stipulates not to conduct any transactions with clients who did not fulfill the data necessary to start the relationship with the customer.
- The letter is requested according to which the policy was circulated to the branches of the supervised entity.
- In the framework of examining the branches, the following is ascertained:
    - A certified copy of the supervised entity's policy for accepting clients.
    - Examining a sample from the files of clients in charge of the supervised entity to ensure that branches adhere to the policy of accepting clients of the supervised entity.

4.2 CLIENT IDENTIFICATION

4.2.A OBJECTIVES

Verify that the supervised entity has established appropriate and clear foundations and procedures for identifying clients.

4.2.B INSPECTION PROCEDURES

- Ensuring that the official documents and documents related to the identification of the client and the nature of his activity are signed by the competent employee, indicating that they are a true copy. In addition to ensuring that there are appropriate procedures in place to verify the correctness of the data and information obtained from the customer.
- Reviewing the supervised entity's procedures for identifying the natural customer and verifying his identity through approved documents, data, or information to ensure that they include the following:

- The client's full name - his nationality - the date of birth - the national number for citizens - the passport number for non-Yemenis - the current and permanent address of his actual place of residence (and notification when changing the address) - the purpose and nature of the business relationship.
    - Verifying the documents related to clients who are incompetent or incompetent for them and for those who represent them.
    - In the event of dealing with a person authorized by the client, to ensure that there is a certified copy of the power of attorney, and the identity of the client and the agent must be verified according to the procedures for identifying the identity of the client in the Anti-Money Laundering and Terrorism Financing Regulations 2010 and its amendments.
- In the event of reviewing the identity of a legal person, it must be ensured that the following are available in the documents and information:
    - Name and legal form, address of the headquarters and the type of activity it carries out, its capital, date, and number of registrations with the competent authorities, its tax number and phone numbers, ownership structure, and the controlling department.
    - A copy of the contract and regulations for establishing the supervised entity showing the business relationship and its nature, the names of the owners, and their ownership shares. The provisions that regulate the binding authority of a legal person or legal arrangement.
    - Verify the certificates issued by the General Registrar of Companies. In addition to an official certificate issued by a competent authority if the supervised entity is registered abroad.
- There must be a separate form for each type of supervised entity that differs from each other.
- Ensuring that there are no open operations based on fingerprint or stamp.
- Ensuring that an appropriate mechanism is in place to review the lists of clients that are prohibited to deal with at the headquarters of the supervised entity and the branches.
- Ensuring that appropriate procedures are in place to verify the identity of the real beneficiary and that a written declaration is provided that shows the identity of the real beneficiary and includes the identification information of clients.
- All information is recorded, and all documents related to identification procedures and legal situations are saved in an appropriate manner.
- Within the framework of examining the branch business, in addition to the above screening procedures, a sample representative of the number and quality of customers in the branch is selected, and all branches adhere to the supervised entity's policy of accepting clients and the procedures in place in addition to identifying customers' identity. And review that the supervised entity has made sure of the validity of the data available on the client

4.3. CUSTOMER RISK MANAGEMENT

4.3.A OBJECTIVES

- Ensuring that the supervised entity establishes principles for classifying the degree of customer risk.
- Verifying the status of the supervised entity of the necessary procedures to deal with these risks in proportion to the degrees of care.
- Ensuring that the supervised entity is reviewed periodically to classify clients according to risk scores.
- The validity of the data sent to the Anti-Money Laundering Committee.

4.3.B INSPECTION PROCEDURES

- The inspection of the system established for customer risk management includes policies and procedures based on identifying, assessing, controlling, and reporting risks, provided that this system addresses all areas of risk, including the following:
    - Risks related to products and services.
    - Risks related to customers.
    - Risks related to specific geographical areas.
- Ensure that there are procedures in place to take care of customers according to their degree of risk.
- Review the suitability of the care procedures according to the degree of risk of each class of customer classification.
- Ensure that there is a periodic mechanism to review the classification of customers.
- Within the framework of examining the branch business, a sample of clients is selected according to the degree of risk to ensure the extent to which the supervised entity adheres to the above procedures.

CHAPTER FIVE: THE MINIMUM DATA REQUIRED IN THE COMPLIANCE OFFICER REPORT

5.1 THE ACTIVITIES OF THE COMPLIANCE OFFICER

5.1.A TABLE 1: WITH REGARD TO CONTROL SYSTEMS AND PROCEDURES

STATEMENT	YES	NO	COMMENTS
Has a working procedure guide for combating money laundering and terrorist financing been prepared? (Date of preparation of the guide is mentioned)			
Has the work procedures manual been approved by the supervised entity's board of directors? (The date of adoption of the guide is mentioned)			
Has the work procedures guide been distributed to all departments and branches of the supervised entity? (The date of distribution of the guide is mentioned)			
Has the Business Process Manual been updated? (The directory was last updated date)			
Have officials been identified in the branches to combat money laundering and terrorist financing?			
Have the functions of those responsible for combating money laundering and terrorist financing been defined in the branches?			
Are identification systems and legal statuses applied for clients?			
Are there adequate automated systems in place to detect abnormal processes? (It is mentioned whether the automated systems used are limited to setting certain limits only for unusual operations or there is an advanced computer system that can reveal the unusual operations for each client separately)			
Have the personnel involved in the supervised entity been trained on anti-money laundering and terrorist financing systems?			
Has a future training plan been drawn up to qualify the supervised entity's staff in the field of combating money laundering and terrorist financing? (This plan is mentioned in an attached statement)			
Have appropriate measures been taken to spread awareness in the field of combating money laundering and terrorist financing among the supervised entity's staff? Briefly mention the methods applied in this field (periodic meetings, periodicals, publications, brochures, etc.)			

STATEMENT	YES	NO	COMMENTS
Have criteria been set by the supervised entity to classify clients according to the degree of risk related to each of them? (These criteria are mentioned in an attached statement)			
Have appropriate measures been taken to spread awareness in the field of combating money laundering and terrorist financing among the supervised entity's staff? Briefly mention the methods applied in this field (periodic meetings, periodicals, publications, brochures, ...)			
Are all records and documents in the supervised entity made available to the compliance officer while he is examining suspected cases?			
Has the supervised entity taken measures to ensure the independence of the compliance officer? (Mention those actions)			

5.1.B TABLE 2: SUSPICIOUS ACTIVITIES AND TRANSACTIONS

STATEMENT	YES	NO	COMMENTS
Has the supervised entity established clear criteria to detect unusual and suspicious transactions? (A brief description of these standards is mentioned in the attached statement).			
Are all the unusual and suspicious operations inspected centrally by the compliance officer in the headquarters or by those responsible for combating money laundering and terrorist financing in the branches?			
Do those responsible for combating money laundering and terrorist financing in the branches send periodic reports on all unusual operations to the compliance officer at the headquarters?			
Is a record kept in which the suspected cases received by the compliance officer, which he kept after conducting the inspection, are kept?			
Is the financial information collection unit notified of suspicious operations according to the form prepared for this purpose?			
Are copies of the notifications of suspicion reported to the unit accompanied by all data and pictures of documents related to it?			
Is there an internal follow-up subsequent to the operations about which the FIU was notified?			

5.2 COMPLIANCE OFFICER EVALUATION OF THE SUPERVISED ENTITY'S SYSTEMS AND OPERATIONS

5.2.A TABLE 3: CONTROL SYSTEMS AND PROCEDURES

STATEMENT	WEAK	ACCEPTABLE	HIGH	COMMENTS
The compliance officer's opinion regarding the evaluation of the internal system for combating money laundering and terrorist financing.				
The compliance officer's opinion regarding the extent of the employees' commitment to implementing the internal control system				

5.2.B TABLE 4: SUSPICIOUS ACTIVITIES AND TRANSACTIONS

STATEMENT	YES	NO	COMMENTS
Has an inventory been made of the number of unusual and suspicious transactions made available to the compliance officer?			
Has an inventory been made of the number of unusual and suspicious transactions for which a decision was taken for safekeeping, and the FIU was not notified of them?			
Has an inventory been made of the number of suspicious operations that have been notified to the department?			
Did the compliance officer conduct an evaluation of unusual and suspicious operations? "If there are suggestions he has in this regard, they are mentioned).			

5.3 ACTIONS TAKEN AFTER PREPARING THE REPORT:

5.3.A TABLE 5: FOLLOW-UP TABLE

STATEMENT	YES	NO	COMMENTS
Was the report prepared by the compliance officer presented to the board of directors of the supervised entity?			
Did the board make any observations or comments on the report?			
Have measures been taken to put into effect the observations or comments of the Council regarding the AML / CFT systems and procedures in the supervised entity?			
Are there any other efforts made by the supervised entity in the field of combating money laundering and terrorist financing, or suggestions or recommendations for the compliance officer to develop practical practices in this field?			

A statement of the training that the concerned personnel of the supervised entity received on the systems of combating money laundering and terrorist financing.

5.3.B TABLE 6: TRAINING TABLE

Date of the training	Type of the training	The body that conducted the training	The duration of the training	Number of trainees	Administrative levels for trainees

5.4 THE APPLICATION OF CONTROL AND SUPERVISION ON THE FI AND NON-FI REGARDING AML/CFT MEASURES

Entity Name			
Risk Assessment			
	Does the supervised entity have a risk assessment system based on the customer base and their transactions?		
	Does your company have an adequate level of due diligence required for the group of clients that there is reason to believe that they pose high risks due to the nature of the activities they engage in through the supervised entity?		
	Does the supervised entity deal with its clients on a cash basis?		
	What are the procedures followed by you to find out the real beneficiary? 1 2 3 4		
Dealing with legal persons			
	Is your company required to understand the ownership and control structure of the customer when dealing with legal persons?		
	Are you identifying the natural persons who own or control the customer?		
	Are you obtaining information about the purpose and nature of the business relationship with your clients?		
	Do your due diligence procedures include examining the operations that take place throughout the business relationship period to ensure that the operations that are performed are consistent with the client's file in the supervised entity, the nature of his activity, his risk profile, and the source of funds?		
	Do you update documents, data, or information obtained during the due diligence process by reviewing existing records, especially for high-risk categories of clients or business relationships?		
	Does your company verify the identity of real customers and beneficiaries before or during the establishment of a business relationship or the execution of transactions for occasional clients?		
PEPs Due Diligence			

	Does your company obtain the approval of the Supreme Department to establish business relations with politically exposed persons?		
	If it is discovered that one of the real clients or beneficiaries who previously dealt with them is a person who is politically exposed, or one of his family members according to FATF standards, has become a politically exposed person, does your company obtain the approval of the Supreme Department to continue in the business relationship with the client?		
	Are you taking adequate measures to ascertain the source of wealth and the source of funds for clients and real beneficiaries who are classified as politically threatened?		
	In the event that there are working relationships between your company and people who are politically exposed, does your company monitor this relationship continuously and strictly?		
Exploiting technological developments in money laundering and terrorist financing			
	Does your company implement the necessary policies or procedures to prevent the exploitation of technological developments in the field of money laundering and terrorist financing?		
	Does your company implement policies and procedures to deal with any risks related to a business relationship or indirect operations (that are not face-to-face)?		
Dealing with third parties			
	Does your company rely on a third party to obtain the necessary information on some elements of the due diligence process?		
	Does your company require immediate obtaining from that party the necessary information on some elements of the due diligence process?		
	Does your company ensure that the third party will provide copies of customer identification data and other relevant documents upon request and without delay?		
	Does your company ensure that the third party is subject to oversight and applies the necessary due diligence measures?		
Unusual large transactions			
	Does your company pay special attention to all large, complex, unusual operations or unusual patterns of operations that do not have a clear economic or legal purpose?		
	Does your company verify the background and purpose of these operations and specify the results of this verification in writing?		
Notification of suspicious transactions			
	Has your company provided any notification of any suspicious operation to the FIU?		
	Have you been informed of any feedback on the suspicion cases that you submitted to the FIU?		
Customer Due Diligence			
	Does your company's policy on AML/CFT include the following elements?: • Identifying and verifying the identity of the customer before starting a business relationship. • Procedures for identifying clients. Are the identity verified of all clients, including non-permanent ones; And that before entering into dealings with them. (If the answer is no, please explain it) -------------		
	Is your company assessing its customers regarding anti-money laundering policies or practices?		
	Does your company have a process of reviewing and updating the classified customer information (high risk)		

AML/CFT Training			
	Does your company provide anti-money laundering and terrorist financing training for the concerned employees, including the following? • Identify and report transactions that must be reported to government authorities. • Examples of different forms of money laundering, including the products and services of the financial supervised entity • Internal policies to prevent money laundering operations. (If yes, how many times do you train)		
	Does your company keep records of training courses that include attendance records and training materials used?		
	Does your company inform the concerned employees of any new laws, changes, or practices in the current policies related to combating money laundering?		
Sanctions			
	Has your company been subjected to a fine or any penalties from the supervisory authority because of violating the AML / CFT Law?		

MEMORANDUM OF UNDERSTANDING (MOU)
BETWEEN
THE CENTRAL BANK OF YEMEN
AND
THE FINANCIAL INTELLIGENCE UNIT

This is an MOU between The Central Bank of Yemen, which is the government authority responsible for managing monetary policy and the accounts of government agencies, as well as being the supervisory authority for banking financial institutions (hereinafter referred to as "BSD") and The Financial Intelligence Unit (hereinafter referred to as "FIU").

On the cooperation of the BSD and the FIU with respect to the exchange of financial information and intelligence related to money laundering, terrorism financing, and related crimes, and to clarify their respective areas of authority.

DEFINITIONS

- **The CBY**: The Central Bank of Yemen
- **Supervision department**: The Banking Supervision Department in the Central Bank
- **The FIU**: The Financial Intelligence Unit
- **The requesting party**: The party requesting information.
- **The responding party**: The party to whom the request is submitted.
- **The two parties**: the unit and the central bank
- **The financial institutions**: banks, exchange companies/establishments.

OBJECTIVE

The purpose of this MOU is to establish mechanisms to facilitate the exchange of financial intelligence and information related to money laundering, terrorism financing, and related crimes, and to regulate the relationship between the BSD and the FIU, especially in terms of determining the powers and scope of work of each in the field of control, supervision, and inspection of the extent of compliance of banks, financial, and non-financial institutions with the applicable laws and regulations on anti-money laundering and countering the financing of terrorism (AML/CFT).

AUTHORITIES AND SCOPE OF WORK

I. FIU Scope of Work

The FIU is the only entity in the Republic of Yemen with authority to receive and analyze information from financial institutions, non-financial institutions, other regulated entities, and counterpart foreign FIUs regarding operations and transactions suspected to involve money laundering or terrorism financing. The FIU is also responsible for analyzing such information and providing such information and analyses to the concerned authorities when necessary, and for this purpose, it has the following:

1. Requesting the financial and non-financial institutions, designated Non-Financial Businesses and Professions, supervisory and inspection bodies, and other government agencies any information related to the notifications received from the reporting entities.
2. Informing the Public Prosecution Office when the FIU has serious reasons to suspect the existence of money laundering or terrorist financing operations, with the necessary inferences.
3. Obtaining any information when it deems it useful to carry out its function or upon the request of counterpart FIUs.
4. Conducting field inspections of banks and financial institutions to verify the extent of their compliance with its provisions and implementing regulations, and within one month after finalizing the inspection mission, submitting the inspection report to the Governor of CBY and the Banking Supervision Department, with any recommended measures that the FIU suggests should be taken by and/or against the concerned bank or financial institution. Provided that the inspection includes verifying the following:
    - Ensuring that the concerned institutions adhere to filling out the notification forms approved by the FIU in the event of suspicion of money laundering or terrorist financing operations.
    - Ensuring that financial institutions fill out forms of cash operations that exceed the threshold specified in the law, especially in terms of determining the source of funds.
    - Ensuring that financial institutions apply the risk-based approach on the risks stipulated in Circular No. (2) for the year 2021 issued by the Central Bank, especially in terms of classifying clients according to three degrees of risk and reclassifying them according to the degree of risk they represent.
    - Ensuring that the relevant financial institutions apply enhanced due diligence measures on the accounts of persons classified as having high risks.
    - Ensuring the commitment of the financial institutions concerned by filling out the Know Your Customer form and verifying the identity of the economic right holders in the accounts.
5. Preparing a report on the observations, violations, and the effectiveness of the systems used, controls, policies, and oversight carried out by the bank in this regard and evaluating the performance of compliance officials for combating money laundering and terrorist financing, after reviewing the reports prepared by them and evaluating those in charge of them as to whether they are qualified and working independently and professionally.
6. Submitting proposals or recommendations to the bank related to the AML/CFT system.

II. CBY Scope of Work

The Central Bank of Yemen is the government authority responsible for managing monetary policy and the accounts of government agencies and the authority to supervise and supervise banking financial institutions, and it is represented here in the banking supervision sector. For this purpose, it has the following:

1. Preparing instructions and circulars related to combating money laundering and terrorist financing operations for banks and laying down guidelines on due diligence measures, the real beneficiaries, and combating the financing of proliferation of weapons of mass destruction, the risk-based approach, the relationship of banking correspondence, and

guidance on indicators of suspicion of money laundering and terrorist financing in operations Banks, and others, and making determinations and developments on them whenever required.

2. In contrast to the inspection missions entrusted to the FIU and listed above, the Banking Supervision Sector conducts field inspections on banks to ensure the extent of their compliance with the provisions of Law No. (1) of 2010, and its amendments, and the executive regulations, including:
    - The existence of anti-money laundering and terrorist financing policies and systems approved by the Board of Directors and the forms used to identify the customer and the ultimate beneficiary and ensure that they are consistent with the requirements and instructions of the Central Bank and FATF guidelines
    - Verifying the internal control procedures (the existence of internal procedures manual, the appointment of a compliance officer at the level of the general administration and branches, the keeping records policy, training of employees, the existence of an internal audit, the appointment of an independent external auditor)
    - The existence of the Anti-Money Laundering and Terrorism Financing Committee
    - An information system is in place to identify and monitor indicators and manage risks.
    - The existence of procedures for periodic verification of the sanction lists circulated by the internal authorities and the international sanctions lists.
3. Ensuring that banks have adequate systems to prevent money laundering and terrorist financing operations and update their blacklists automatically.
4. Ensuring that there is an independent official or compliance officer and that he submits his reports to the Board of Directors or one of the committees emanating from it, and that there is an anti-money laundering unit in each bank whose duties, powers, and administrative links are defined and that it does not carry out any executive work.
5. Requesting banks to provide the department annually with training and courses that have been held for their employees in this field, and with the names of the employees of the group responsible for combating money laundering they have, their qualifications, and the courses they have acquired.
6. Coordination with the FIU through the Governor of the Central Bank to study the developing and the strengthening instructions and guidelines to AML/CFT supervisions.
7. Preparing a comprehensive bank inspection plan for combating money laundering and terrorist financing operations. Such plan shall be: (i) based on the previous evaluation and classification of financial institutions; and (ii) submitted to the FIU head office within sixty calendar days following the end of each calendar year.
8. Receiving a report on each field inspection conducted by the FIU and ensuring that the concerned bank or financial institutions adopt the corrective measures suggested by the FIU.
9. During the monthly BSD/FIU meetings, providing the FIU with BSD's evaluation reports and the measures taken against any bank or financial institution that has not complied with BSD's instructions.
10. Preparing a report on the observations, violations, and the effectiveness of the systems used, controls, policies, and oversight carried out by the bank's board of directors or the committees emanating from it and the higher management in this regard and the team's evaluation of the work of the bank's anti-money laundering unit after reviewing the reports

it prepared and evaluating those in charge of them whether they are qualified and working Independently and professionally.
11. Communicating with the various sectors in the bank to implement this memorandum.

WHEREAS:

The legal framework governing this MoU includes the provisions of Law No. (1) of 2010, and its amendments regarding anti-money laundering and terrorist financing, and its implementing regulations issued by Republican Decree No. (226) of 2010, and their amendments.

THE BSD AND THE FIU AGREE THAT:

Clause One: Principles

For purposes of this MOU, the BSD and the FIU (the "Authorities") undertake to carry out the specified requirements and to act diligently, promptly, and per the following principles:

1. General principle: The Authorities agree that this MOU is a statement of intent and does not create any legally binding obligations upon the Authorities, nor does it supersede domestic laws and regulations. The Authorities shall implement the provisions of this MOU in conformity with the law of Yemen and international standards regarding banking supervision and AML/CFT measures. The cooperation and exchange of information between the Authorities shall take place per their respective policies and procedures. The Authority requesting information shall be called the "Requesting Authority," and the Authority to whom the request is made shall be called the "Responding Authority."

2. Principle of reciprocity: The Authorities shall cooperate to exchange information in their possession, spontaneously or upon request, concerning financial transactions that are suspected of being related to money laundering, terrorism financing, or related crimes. The Authorities will apply the principle of reciprocity when dealing with each other.

3. Principle of Confidentiality: The Authorities undertake to apply strict controls and safeguards to ensure that the information exchanged under this MOU is kept confidential and is used only as authorized for the purposes for which the information is requested. The information will be subjected to official secrecy and protected by the same confidentiality provided by national legislation. This obligation shall continue to bind the parties, notwithstanding the termination of this MOU.

Clause Two: Request for Information

1. The FIU shall have the right to request any information related to its work as it deems appropriate. The CBY will respond to the request within a maximum of two weeks, from the date of receiving the request, unless the FIU specifies a shorter period of time, provided that it is not less than 48 hours, According to the following controls:
    - If the information requested from the investigation or trial authorities is related to the crime of money laundering or terrorist financing
    - If the requested information entails precautionary measures and procedures to seize and freeze funds and properties obtained from a money laundering or terrorist financing crime

- If the information requested is related to freezing the funds of persons or entities whose names are identified in the consolidated list or other lists issued by the UN Security Council
- If the information requested requires urgent action to avoid damage that is difficult to correct

2. The CBY shall have the right to request the necessary information, provided that the request includes:
    - A brief statement of the relevant facts.
    - All available information concerning the suspected crime(s) and charge(s), if any.
    - The reason for the request and the purpose for which the information will be used.
    - The details of any third party, if any, that will use the requested information, the reason for such use, and the identity of any person or organization on whose behalf the third party is acting.

The FIU should respond to the request within a maximum of two weeks unless it has any justifiable reasons for refusal as it deems appropriate. If the FIU decides to refuse to respond to a particular request from CBY, a written memo should be submitted to the CBY with the necessary justifications, provided that the matter is discussed in the monthly meeting between the FIU and the bank.

Clause Three: Use of Information

1. Any information obtained by the Requesting Authority will not be disclosed to any third party nor be used for administrative, prosecutorial, or judicial purposes - except as explicitly stated in the request - without the prior written consent of the Responding Authority.
2. The information obtained by the FIU will be archived in the FIU database, and for this purpose, it may use it for any purposes it deems appropriate.
3. When CBY's request is provided on behalf of another competent Yemeni authority or foreign counterpart, such authority or counterpart shall first execute a commitment in writing, agreeing to maintain the confidentiality of the concerned information to the same extent as provided in this MOU. Such authority or counterpart shall execute the required commitment before the requested information is provided.
4. The information exchanged between the two parties per this MOU may be used in judicial procedures related to money laundering and terrorist financing cases arising from criminal activities specified in Law No. 1/2010 and its amendments.

Clause Four: Mutual Coordination and Information Exchange

1. The Head of FIU and the Head of BSD, or the persons delegated by them, shall meet **at least once per month to:**
    - Establish acceptable procedures and channels of communication for the exchange of information.
    - Consult on other logistical and practical measures for implementing this MOU.
    - Review and coordinate on the cases where information has been or will be requested and their evaluations of such information.
    - Evaluate the quality of the information exchanged.

    - Assess the progress on cases of mutual interest.
    - Determine the measures to be implemented or recommended to enforcement bodies with respect to institutions or entities that are reasonably believed to have failed to comply with AML/CFT requirements.
2. The Authorities will cooperate to assemble, develop, and analyze information relevant to suspected money laundering, associated predicate offenses, and terrorism financing.
3. The Authorities will freely exchange spontaneously or upon request the widest range of information available or obtainable, based on reciprocity.
4. When responding to a request, the Responding Authority will conduct professional and diligent inquiries on behalf of the Requesting Authority and provide all information obtained. In particular, the Responding Authority will provide all relevant information obtainable or accessible, whether directly or indirectly.
5. Immediately upon the receipt of an information request, the Responding Authority will acknowledge receipt of the request and confirm its intention to respond in a timely manner.
6. The Responding Authority will use its best efforts to provide interim or partial responses in a timely manner in cases where there may be a delay in providing a full response.
7. If the "CBY" notifies the "FIU" of its desire to provide the information to another authority or a third party, or if it desires to use the information for an unspecified purpose in requesting the information, the "FIU" may give prior written consent for this additional use. The request for approval may be refused, especially if the proposed publication or use: (1) is inconsistent with the scope of application of the provisions of the AML/CFT law or its regulations; (2) It may impede a criminal investigation or a parallel investigation, (3) it is clearly inconsistent with the legitimate interests of a natural or legal person; Or (4) inconsistent with the basic principles of Yemeni law.
8. If the "FIU" refuses to provide the prior written consent, it must provide the Requesting Authority with a written justification for such refusal. The two Authorities will then meet to explore potential alternative and acceptable approaches for handling the requested dissemination or additional use.
9. Upon the request of the Responding Authority, the Requesting Authority will provide the Responding Authority with a full description of how it has used the information provided by the Responding Authority and the outcome of the analysis conducted, based on the information provided.

Clause Five: Safety and Confidentiality Procedures

Parties will take adequate measures to secure confidentiality and safety of information or contents related to the requests and any type of information or documentation obtained, generated, or supplied by the other party. For this purpose, both parties will:

- Identify a specific person (s) for communication and delivery.
- Define a specific e-mail that will be a channel of communication, with the exception of files, documents, and statements of interest - upon request-.
    - It is delivered in suitable envelopes sealed with a stamp approved at the opening point to ensure that the file is not opened by any party.
    - The information deposited in any electronic memory must be secured with different passwords provided to the other party via e-mail.
- Prepare the request and response processes as formal cover notes, unless there is a

necessity indicated upon request according to the specified channels, provided that the memorandum is attached within a period of no less than three days from the date of submitting the application.

Clause Six: Authorized Contact Person

The only persons authorized to receive or respond to information requests or other communications on the matters covered by this MOU are:

- **For CBY:** The Head of the BSD or his authorized representative.
- **For FIU:** The Head of the FIU or his authorized representative.

Clause Seven: Amendment

This MOU may be amended by mutual consent of the Authorities at any time. The amendment shall enter into force at the time agreed by the Authorities.

Clause Eight: Term and Termination

1. This MOU shall enter into force on the date of its signature by both Authorities and shall remain valid until it is terminated in accordance with the following paragraph.
2. Either Authority may terminate this MOU at any time by notifying the other Authority in writing of its decision to terminate. The termination will become effective upon the other Authority's receipt of such notification; however, any request for information made prior to the date of such termination shall continue to be subject to the terms of this MOU.
3. The two parties are obligated to take the necessary measures against the employees who are reluctant to implement what achieves the objective of this memorandum.
4. Any dispute or difference arising out of the interpretation or application of the provisions of this MOU shall be settled amicably through consultation or negotiation between the Parties. In the absence of an agreement and before the termination of this memorandum, the National Committee for Combating Money Laundering and Financing Terrorism must be involved in the negotiation process.

Signed in Aden, Yemen on ---------/---------/----------

________________________	________________________
Financial Intelligence Unit	Banking Supervision Department

USAID
FROM THE AMERICAN PEOPLE

ECONOMIC RECOVERY & LIVELIHOODS PROGRAM (ERLP) - YEMEN

ANNEX 17

PROCEDURES FOR INTERNATIONAL SANCTIONS

March 2021

Prepared for the United States Agency for International Development, USAID Order # 72027920M00001

USAID/Yemen - Economic Recovery & Livelihoods Program (ERLP)

The Pragma Corporation, 116 East Broad Street, Falls Church, VA 22046

MEASURES TO BE TAKEN BY THE CENTRAL BANK OF YEMEN:

Article (17) of Law No. (1) of 2010 stipulates that the supervisory and control authorities, each in their regard, shall circulate the consolidated list issued by the Security Council to freeze the funds of persons and entities whose names have been identified (the "identified persons and entities"). Every financial and non-financial institution (the "supervised entities") is obligated to immediately (1) freeze the funds of the identified persons and entities and (2) provide the Financial Intelligence Unit (FIU) with all information it has on the identified persons and entities.

Pursuant to Article 31 of Republican Decree No. (2) for the year 2014 amending the Executive Regulations No. (226) for the year 2010 of Law No. (1) for the year 2010, the Banking Supervision Department (BSD) circulates the lists issued by the Al Qaeda and Taliban Sanctions Committee established under Security Council Resolution No. (1267) 1999 and subsequent decisions.

Paragraph (b) of Article (32) bis of Republican Decree No. (2) for the year 2014 amending the Executive Regulations No. (226) for the year 2010 to Law No. (1) for the year 2010 stipulates that the control and supervisory authorities must prepare lists naming the entities and persons who have committed or tried to commit terrorist acts, or who have participated in or facilitated terrorist acts or attempted terrorist acts, according to the laws in force and Security Council Resolution No. (1373) for the year (2001) and subsequent resolutions.

Accordingly, the following instructions establish the procedures to be followed in this regard:

1. The BSD must assign a person (the "International Sanctions Monitor") whose task is to monitor all amendments and other changes to the international sanctions regulations, including the concerned lists issued by OFAC, the United Nations Security Council, and the European Union. The task of the International Sanctions Monitor is to regularly monitor the referenced regulations and lists by checking for updates at the following links:
    a. https://www.treasury.gov/resource-center/sanctions/SDN-List/Pages/default.aspx
    b. http://www.un.org/securitycouncil/ar/content/un-sc-consolidated-list
    c. https://www.europeansanctions.com/news/
2. The Central Bank of Yemen subscribes to the World-Check website. World-Check is a database of Politically Exposed Persons (PEPs) and heightened risk individuals and organizations used worldwide to help identify and manage financial, regulatory, and reputational risk. The International Sanctions Monitor shall also be responsible for regularly monitoring the World-Check website. The Financial Intelligence Unit (FIU) also has the right to access this site to verify the names that it contains while analyzing notifications or investigations related to cases suspected to involve money laundering or terrorist financing.
3. In the event of any amendments or changes to the regulations or lists, the International Sanctions Monitor shall inform all supervised entities of these amendments/changes by immediately:
    a. Directly sending an email to all supervised entities informing them of the amendments/changes; and
    b. Informing the Central Bank of Yemen employee responsible for the official website of the CBY and instructing that employee (i) to include the amendments/change on the webpage dedicated to international sanctions and (ii) to send a notice to all supervised

entities informing them of the updates and requiring each to confirm that it has reviewed the updates and has implemented the necessary measures.

4. The BSD's inspectors, in carrying out their field inspection tasks, must (i) verify each supervised entity's commitment to updating its database on international sanctions imposed on the identified persons, and (ii) inform any supervised entity having a deficient system or procedures or that is otherwise not in compliance of the corrective measures the supervised entity must take and the timeframe (which in no case shall be longer than 30 days) for implementing those measures.

MEASURES TO BE TAKEN BY SUPERVISED ENTITIES

The above-specified procedures do not exempt supervised entities from their responsibilities in terms of periodically checking the penal regulations and adopting specialized information programs to perform due diligence on their clients and other persons and entities before accepting them as clients or opening accounts.

Every compliance officer of a supervised entity must ensure that the entity's systems are linked to the official website of the CBY and that such systems are regularly and promptly updated with any amendments or other changes to the international sanctions regulations and lists. As soon as the supervised entity receives updates on the international sanctions regulations and lists, the supervised entity must immediately compare the names on the lists with the names of its clients and all persons and entities who are seeking to become clients.

In addition, the supervised entity must verify that any listed person or legal entity does not, directly or indirectly: (1) own or benefit from any of the capital or assets of any client that is a legal entity, (2) control 10% or more of the capital of any client that is a legal entity, or (3) exert, by any means, effective control over any client, whether a person or legal entity.

The supervised entity applies the risk-based approach to the listed names, especially in reclassifying them, placing them in the category of high risk, and applying enhanced due diligence procedures.

The supervised entity must continue to review any update on the website of the Security Council, the US Treasury, and the European Union, subsequent decisions in this regard, and the regulations issued in this regard, and immediately, without delay and without prior notice, freeze funds, accounts, operations, or other assets belonging to these names. Inclusion, if any, in any form (direct, indirect, joint).

The supervised entity must immediately notify the FIU if any client - or any person/legal entity associated with any client – is identified in the international sanctions regulations/list. The supervised entity must include in the notification a description of the actions it has taken within the 48-hour period from the date of the listing. The supervised entity must also attach to the notification all information related to the listed person/legal entity, including a description of (i) all assets owned by such person/legal entity, (ii) all entities associated directly or indirectly with such listed person/legal entity, and (iii) all account owned or controlled, directly or indirectly, by the listed person/legal entity.

The supervised entity must notify the FIU as soon as there is a similarity between the name of one of their clients and the name and specific details listed on the international sanctions' regulations.

Before submitting the report to the FIU, the supervised entity must take reasonable steps to ensure that the specified person or entity is the same person or entity mentioned in the relevant sanctions list (i.e., verifying the name with other identifying information).

ECONOMIC RECOVERY & LIVELIHOODS PROGRAM (ERLP) – YEMEN

ANNEX 18

FINANCIAL SECTOR SUPERVISION CAMELS-COMPLIANT OFF-SITE BANK SUPERVISION MANUAL

March 2021

Prepared for the United States Agency for International Development, USAID Order # 72027920M00001

USAID/Yemen - Economic Recovery & Livelihoods Program (ERLP)

The Pragma Corporation, 116 East Broad Street, Falls Church, VA 22046

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INTRODUCTION

A. THE PURPOSE OF THIS MANUAL

This manual provides basic procedures that enable supervisory authorities to classify banks according to the CAMELS methodology and assess performance indicators and benchmarks. The classification process, in turn, facilitates the development of effective supervisory practices linked to Basle III Pillars I, II, and III. A separate manual for NBFI classification needs to be developed to enable impactful supervision by the CBY. According to this system, Bank classification is not in itself the ultimate objective of the manual, but rather the development of peer groups and identifying outliers that could threaten the safety and soundness of the financial system. The peer groups also form the basis for Basle III stress testing applications.

For this manual, quantitative indicators are compiled and sensitivities calculated, using prudential returns, bank quarterly financial statements, and other reliable sources of information with integrity. In contrast, qualitative indicators (such as quality of management, risk management policies and procedures, and governance processes) are rated during the on-site inspection missions.

This manual is intended as a reference for purposes of off-site classification of banks using the CAMELS rating system. Although there are distinct and separate banking laws for conventional commercial banks and Islamic banks, this manual can be used for both with the correct mapping of products and services as such. When assigning ratings, examiners consider an institution's size and sophistication, the nature and complexity of its activities, and its general risk profile.

B. USERS OF THE MANUAL

This manual is to assist CBY Supervision staff in performing financial analysis and off-site classification of banks. A separate manual to assist with the supervision of NBFIs compliant with best practice should also be developed to benefit the CBY and the importance of NBFI supervision in the context described in the introduction.

MANUAL MODIFICATION

This manual is not a static document and should be reviewed and updated whenever necessary to ensure that it conforms to supervisory oversight requirements and best regulatory practices.

CHAPTER 1: CAMELS COMPONENTS

Basle III reforms were introduced in 2009 in the wake of the Global Financial Crisis of 2007-2008. The finalized set of reforms was endorsed on December 7, 2017, by the Group of Central Bank Governors and Heads of Supervision (GHOS), the Basel Committee's oversight body. The adjustments to the market risk framework were endorsed by the GHOS on 14 January 2019. The revised standards will make banks more resilient and restore confidence in banking systems. While the state of development of the Yemeni financial system as it emerges from a prolonged conflict currently supports a Basle II plus implementation. Working towards putting in place some of the full-fledged Basle III implementation milestones at this stage is also feasible. Starting with a CAMELS approach to rate financial institutions, using the six qualitative and quantitative indicators: Capital adequacy, Asset quality, Management, Earnings, Liquidity, and Sensitivity. In the following, we discuss each indicator in detail.

1. CAPITAL_ADEQUACY

Capital Adequacy Ratio (CAR) is the ratio of a bank's capital to its risk-weighted assets and is currently set at 8% for banks in Yemen. The numerator of the capital adequacy ratio (CAR) is bank capital (currently Tier and Tier II instruments with no Tier III instruments issued by Yemeni banks), and the denominator is risk-weighted assets (initially composed of on and off-balance sheet credit risks). In 1997, the market risk was added to the denominator while keeping the minimum CAR at eight percent.

THE CAMELS SYSTEM RATES CAPITAL ADEQUACY AS FOLLOWS:

1) A capital rating of 1 is considered strong and characterized by the following quantitative indicators:
   - Amount of capital is large compared to weighted risks;
   - Strong earnings track record which enables the internal capital generation and delivery of satisfactory returns to shareholders;
   - The percentage of growth of capital is equal to or greater than the percentage of growth in assets;
   - A low level of non-performing assets and adequate provisions coverage.

2) A capital score of 2 is considered good, with similar characteristics of a bank with a rating of 1, where capital adequacy ratios exceed minimum prudential requirements and are determined to be adequate compared to the size of weighted risk exposures, but where the bank has weaknesses in one or more of the factors mentioned above. For example, a bank's earnings and growth track record might be robust. However, asset quality could be lower and/or provision coverage inadequate. Nevertheless, the bank is deemed to have the capacity to correct weaknesses within reasonable timeframes without direct regulatory intervention from the Central Bank.

3) A capital rating of 3 is considered acceptable and characterized as compliant with the minimum levels of capital adequacy and regulatory requirements for bank solvency, but with major weaknesses in one or more factors requiring a bank to take necessary steps to increase capital. One reason for this classification is a high level of non-performing assets and/or weak profitability.

4) A capital rating of 4 is considered weak and indicates severe problems due to insufficient capital supporting inherent risks in the business model and operations. At level 4, a bank is experiencing high losses because of non-performing loans that have led to the erosion of roughly half of its capital. The bank may also face major losses in its banking and credit operations or be lossmaking and unable to meet minimum prudential regulatory capital requirements. In this instance, if the bank does not take immediate corrective action, it is determined to be at high risk of insolvency, triggering regulatory intervention from the Central Bank to ensure that the bank takes appropriate measures to raise capital to the minimum prudential requirement levels.

5) A capital rating of 5 is considered very weak and critically low, where a bank is deemed insolvent and in need of strong supervisory intervention to limit losses to depositors and creditors. Investment losses and poor banking and lending operations would have led to the erosion of more than half of its capital. The probability is low that any measures adopted by the bank would prevent its collapse.

THE USE OF FINANCIAL RATIOS IN THE CLASSIFICATION PROCESS

The process of evaluating and identifying off-site classification scores does not consider specific factors and indicators. Financial ratios are utilized as reliable proxies for classification factors. There are many ratios for each component. We chose to use two ratios in this version of the manual for the evaluation of each factor. The Central Bank of Yemen could choose to adapt and add others, especially regarding prudential regulatory ratios to which banks are required to adhere. The type of classifications should range from strong, acceptable to weak, with an upper or lower limit for each ratio aligned with CBY prudential regulations.

Banks can also be divided into groups according to size or type, for example, conventional, commercial, or Islamic, and the accepted standard ratios are calculated for each group. This forms the basis for peer group definitions and stress testing for compliance with Basle III requirements in the future.

The ratios that can be used to evaluate the capital component include:

1) Capital Adequacy Ratio (CAR)

CAR equals regulatory capital (tier 1+ tier 2) / (credit risk + market risk + operational risk) ≥ the ratio determined by the CBY.

Basel I and Basel II minimum CAR is eight percent, Basel III 10.5 percent incorporating up to 2.5% in the form of a capital conservation buffer. At the discretion of the national regulatory authorities, a countercyclical buffer could be added and/or an additional surcharge for systemically important banks or SIBs. Note that a key enhancement of Basle III is with respect to the quality of capital, not just the quantum of the numerator. However, given that only Tier I and very limited Tier II instruments are prevalent in Yemen, the adoption of further refinements linked to the measurement of the quality of capital could be done at a later stage.

2) Static Leverage Ratio

The overall leverage ratio is a static ratio used to evaluate the size of the bank's balance sheet compared to its capital base. This ratio becomes a requirement under Basel III to specifically ensure the capping of the amount of leverage a bank has on and off-balance sheet relative to its capital base in the wake of the GFC. Global leverage had been identified as one of the main causes of the GFC, yet fast forward to more than a decade after the crisis, the world has not purged much of its overall systemic leverage. Some banks in selected advanced systems have somewhat reduced overall leverage and improved the quality of capital through de-risking activities in emerging markets that are capital intensive. The most important of which with implications for Yemen and other emerging markets is correspondent banking and trade finance activities. The numerator of the ratio consists of capital and the denominator of assets on and off-balance sheet line items (including letters of credit, guarantees, and acceptances after subtracting their cash margin) and with 100% weighting applied to denominator components.

TABLE 1. PROPOSED SCHEDULE FOR CAPITAL ADEQUACY CLASSIFICATIONS ACCORDING TO THE CAMELS MODEL (SUBJECT TO MODIFICATION AS NEEDED BY THE CBY)

CLASSIFICATION SCORE	CLASSIFICATION TYPE	CAPITAL ADEQUACY RATIO	LEVERAGE RATIO
1	Strong	More than 14%	6% or more
2	Good	13% to 14%	5%-5.9%
3	Acceptable	10% to 12%	4%- 4.9%
4	Weak	6% to 9%	3%-3.9%
5	Very Weak	Less than 6%	Less than 3%

2. ASSET QUALITY

Against the backdrop the Yemeni banking system has been exposed to over the last two decades, asset quality is a key indicator for banks with inherent weakness across the system. Asset quality metrics are weak, and systemic non-performing loans ratios are likely severely understated. This should be taken into consideration for the purpose of banking sector reforms, perhaps with the CBY commissioning a sector due to diligence asset quality review exercise, and within the context of this manual, heavily weighting this component in the composite rating. Furthermore, the transition matrices for IFRS9 implementation could be derived by shocking or applying sensitivity analysis to the reported asset quality matrices for each bank. This could serve as a first initial estimate for the order of magnitude of the capital impact of IFRS9 implementation on the Yemeni banking system.

According to the CAMELS classification model, bank assets are rated as follows:

1) Assets rated at level 1 are characterized as being of high quality, showing a robust trend in repayments, and are adequately provisioned for. The following minimum quantitative indicators characterize this classification:
    - The size of non-performing assets to capital and provisioning is very small;
    - There is a positive and consistent trend in collections;
    - The risk of credit concentrations is low;
    - The risk and amount of credit granted to related parties is low;
    - Underwriting practices are sound.

2) Assets classified at level 2 are of good quality, and weaknesses can be corrected by the bank without direct supervisory intervention. The following minimum quantitative indicators characterize this classification:
    - In general, the bank shows the same characteristics as a rating of 1, but there are minor weaknesses in one or more factors:
        - The size of non-performing assets to capital and provisioning is small;

    - A slow down and declining trend in the level of collections;
    - Credit granted to related parties is moderate.

3) Assets classified as level 3 are at an adequate level of quality. Strong supervisory oversight by the CBY is needed to ensure that the bank takes immediate steps to correct weaknesses affecting asset quality. The following minimum quantitative indicators characterize this classification:
    - There is a major weakness in one or more of the rating factors indicated within the classification of Grade 1, especially in the area of credit underwriting standards, which, if not corrected, could severely weaken capital. It is characterized by some or all of the following characteristics:
        - Increase in the volume of non-performing assets to capital and reserves;
        - An increase in the amount of collections, but at acceptable levels;
        - Inadequate provisioning for non-performing credits;
        - Credit granted to related parties has reached the approved maximum limits defined by the CBY.

4) Assets with a rating of 4 are characterized by a weak and marginal level of quality and require Central Bank intrusive intervention requiring the bank to take appropriate corrective measures and a plan with milestones to avoid insolvency. The following minimum quantitative indicators characterize this classification:
    - There are unusual weaknesses in many of the factors cited in level 1and in several aspects of credit underwriting and provisions coverage. It is characterized by some or all of the following characteristics:
        - An increased volume of non-performing assets to the bank's capital and reserves and also the trend is on a deteriorating trajectory;
        - The amount of non-performing assets is large and has become a concern to the Central Bank;
        - There appears to be a significant deficit in provisioning against non-performing loans and other bad assets.

5) Assets with a rating of 5 are considered very weak, necessitating strong and continuous supervisory intervention by the Central Bank. Concrete measures are needed to correct financial, operational, and administrative shortcomings (such as a moratorium on new credit extensions, changes in bank management, increasing capital, and adjusting/strengthening credit underwriting policies and procedures, among others) due to the inherent threat to depositors and creditors of the bank. The following minimum quantitative indicators characterize this classification:
    - There are unusual weaknesses that have a significant impact on the continuity of bank operations in many of the factors mentioned in the Grade 1 classification, including:
        - A large portion of the bank's loans are over-due, and the size of bad debts to capital and provisioning is very large, threatening solvency;
        - There is a low probability that the measures available to bank management will improve the quality of the bank's assets.

According to the CAMELS model, asset quality is measured as follows:

TABLE 2. CAMELS ASSET QUALITY			
Classification Score	**Classification Type**	**The ratio of Non-Performing Loans to Total Loans**	**The ratio of Non-Performing Loans[1] to Capital and Reserves**
1	Strong	3%	Less than 10%
2	Good	3% -5%	10% -20%
3	Acceptable	6% -10%	21% -40%
4	Weak	11% - 20%	41% -60%
5	Very weak	More than 20%	More than 60%

In the calculation of asset quality ratios for Yemeni banks, given the caveats mentioned with regards to the quality of data and frequency of access to prudential returns, and the need for an asset quality review at a system level, we believe no collateral adjustments should be taken into account in netting off any exposures at this stage for calculations. Furthermore, collateral valuation and frequency are practically impossible in the current environment.

3. MANAGEMENT

Management performance is an essential component of measuring the extent to which a bank is successful in creating value for its shareholders and stakeholders. Financial institution balance sheets and income statements are much more sensitive to the quality of management factors vis-à-vis corporates, where the balance consists of a large based of physical as opposed to financial assets. To evaluate management quality, management processes, and governance, some of the areas analyzed include composition and qualifications of the board of directors and governance practices, senior management qualifications and caliber, and the bank's key performance indicators trajectory. Moreover, a management assessment determines whether a bank conducts its operations safely, soundly, and effectively in line with the central bank's guidelines and regulations. It is considered among the responsibilities of executive management to develop and implement policies, procedures, and practices that reflect the objectives and organizational risk appetite set by the board of directors.

Assessment of the bank's board of directors and executive management's capability depends on the following factors, most of which are based on bank-reported data provided to the supervisory authority used in conjunction with qualitative indicators measured during on-site inspections. It is important to note that rating management soundness is based on the CAMELS 1-5 rating system. The effectiveness of the board of directors' vision and oversight over bank activities and its capacity to strategically plan, understand and manage risk;

- Compliance with risk appetite overarching targets set by the board;
- Bank commitment to policies and procedures approved by the board;
- The accuracy and effectiveness of management information and risk management systems;
- The adequacy and effectiveness of internal control systems, including controls on money laundering, terrorist financing, and information technology;
- The efficacy of continuity plans;

- Compliance with Central Bank laws and regulations and responsiveness to Central Bank observations;
- The efficacy of the bank's Internal Control Department (internal audit) and auditor;
- The training and qualifications of bank employees and their participation in training programs related to their specific job responsibilities;
- The existence of job descriptions and limitations on authorities for various job levels and executive and monitoring committees;
- The efficacy of strategic plans;
- Bank performance with respect to other CAMELS factors.

CAMELS management classifications are as follows:

1) A rating of 1 indicates high-level performance in all areas, management's ability to respond to changes in the economic environment, and Central Bank satisfaction with the current level of management procedures. In general, a rating of 1 is characterized by the following minimum quantitative indicators:
    - Strong financial performance in various banking activities, a decline in the volume of non-performing debts and overdue balances, and solid financial ratios that reflect strong operational and administrative efficiency;
    - Strong bank commitment to discretionary plans and budgets, as indicated in reports and financial statements to the Central Bank;
    - No breach of Central Bank prudential requirements;
    - The responsiveness of board members and senior executives to Central Bank recommendations.

2) A rating of 2 reflects good management performance and the following minimum quantitative indicators characterize efficiency in all aspects and in general:
    - The bank generally manifests the same characteristics as a rating of 1, where its board of directors and executive management are largely compliant with Central Bank laws and regulations, bank operations are effective, financial conditions, and key performance ratios are good. The Central Bank does not express concerns with respect to or weaknesses in one or more of the factors mentioned above are determined to be minor and easily corrected without Central Bank intervention.

3) A rating of 3 reflects acceptable administrative and financial performance, but Central Bank regulatory intervention is required to correct weaknesses. In general, a score of 3 is characterized by the following minimum quantitative indicators:
    - A major deficiency in one or more of the rating factors mentioned in the level 1 classification that, if not corrected, could lead to severe financial weaknesses. Key characteristics include:
        - Related party engagement which is considered unsound;
        - Failure to fully comply with Central Bank requirements;
        - The occurrence of several breaches of Central Bank laws and guidelines;
        - However, acceptable financial performance.

4) A rating of 4 reflects weak administrative performance and general weaknesses in several areas, requiring the Central Bank to take intrusive and appropriate corrective measures to strengthen

conditions and restore needed safeguards for depositors and creditors. In general, banks in this category manifest:

- Major weaknesses in several elements mentioned in level 1, owing to one or more of the following characteristics:
  - Considerable unsound related party activity;
  - Significant failure to comply with Central Bank requirements;
  - The presence of several breaches to Central Bank laws and guidelines;
  - Significant weakness in the bank's financial performance, potentially leading to bank failure.

5) A rating of 5 reflects weak management performance that is determined to be ineffective in all areas, requiring Central Bank immediate intervention and demand for radical changes in management and continuous close monitoring and follow-up on corrective actions taken by new management. Generally, a rating of 5 is characterized by the following minimum quantitative indicators:
   - A Fundamental weakness in all components of a rating level 1, reflecting complete ineffectiveness of management. In general, this classification is characterized by:
     - Gross breaches of Central Bank laws and guidelines;
     - Poor financial performance as reflected in the bank's financial ratios;
     - Significant non-compliance with Central Bank requirements;
     - Lack of commitment to prescribed corrective measures.

Many ratios measure the quality of management for off-site supervision purposes, including the ratio of total operating expenses to total income and the ratio of earning assets to total assets.

TABLE 3. CAMELS MANAGEMENT CLASSIFICATION			
Classification Score	**Classification Type**	**Percentage of Total Operating Expenses/Total Income**	**The Ratio of Earning Assets to Total Assets**
1	Strong	Less than 25%	More than 65%
2	Good	25% -30%	51% -65%
3	Acceptable	31% -40%	41% -50%
4	Weak	41% -50%	30% -40%
5	Very weak	More than 50%	Less than 30%

4. EARNING CAPACITY

Factors that affect the bank's earnings generation capacity, continuity, quality, and stability of earnings should be taken into account. The earnings assessment should not be limited to size and overall direction and dependent on earnings quality and composition. A bank's earnings can also be negatively affected if its management is unable to implement strategic plans or manage its assets effectively. Management sees earnings as an important element to ensure the continuity of the bank's business, and it is directly affected by the quality of the assets. The effectiveness of earnings is measured by several ratios, the most important of which is the ratio of return on average assets as the starting point for earnings evaluation.

CAMELS classifications of bank earning capacity is as follows:

1) A rating of 1 reflects a high level of earnings and profitability and Central Bank satisfaction with light touch supervision to monitor bank operations and KPIs. The following minimum quantitative indicators characterize a rating of 1:
    - There are sufficient earnings to cover required provisioning and internal capital generation and distribution of profits to shareholders;
    - Strong financial performance;
    - Minimum reliance on extraordinary income sources as a percentage of total revenues;
    - Improvement in the composition and quality of revenues and a decrease in operating expenses.

2) A rating of 2 reflects a good level of earnings and income needed to meet provisioning and internal capital generation requirements. In general, a rating of 2 is characterized by the following minimum quantitative indicators:
    - The bank generally shows the same characteristics as for the classification of 1, but with weaknesses in one or more of the mentioned factors, albeit correctable by the bank and without direct Central Bank intervention, including:
        - An increase in bad debts and collections, which may exert pressure on future profit realization and the need for higher provisioning;
        - Decreased income from major activities and increased reliance on extraordinary income sources as a percentage of total revenues;
        - An unusual gradual decline in earnings and profitability ratios.
3) A rating of 3 reflects an acceptable level of earnings and profitability, and in general, it is characterized by the following minimum indicators:
    - Major weakness in one or more of the rating factors within the grade 1 classification, which, if not corrected, could lead to a weakening of the bank's capital position. The bank requires Central Bank regulatory intervention and an agreed plan of corrective measures to address deficiencies affecting profitability. A classification of 3) is characterized by some or all of the following characteristics:
        - The level of bad debts and collections arrears is high, impacting profits and capital;
        - A sharp drop in profits and related ratios due to ineffective management procedures and hindering the process of creating needed provisions and internal capital generation;
        - Failure to realize profits to support fulfilling capital adequacy requirements.
4) A rating of 4 reflects weak earnings and profitability, and in general, is characterized by the following minimum quantitative indicators:
    - Major weaknesses in many of the components mentioned in the Grade 1 classification, requiring the bank to present a corrective action plan designed to strengthen earnings and profitability. It also requires following up with the Central Bank continuously with respect to the implementation of the approved corrective plan. Some of the following characteristics characterize a classification of 4:
        - The presence of severe problems in earnings profitability, which prevents the bank from making the required provisioning and ensuring sufficient internal capital generation. Usually, the bank is realizing losses, and its operating income is low.
        - Failure to take immediate corrective action may lead to future losses in a manner that threatens the bank's solvency.

5) A level 5 rating reflects a critically low level of earnings and profitability or losses being realized, and an urgent restructuring plan subject to Central Bank monitoring, in addition to strong and appropriate corrective measures to address the situation to protect depositors and lenders. In general, a rating of 5 is characterized by:
    - Major and fundamental weakness in all of the classification components mentioned in the classification of grade (1) above;
    - Major and recurring losses that could endanger a bank's capital and solvency.

The Return on Equity (ROE) ratio is frequently used, which measures the average return on shareholder's equity. ROE is calculated by dividing the net income before tax by the average equity of the previous two years. It shows for every dollar of equity how much return is being realized before taxes (to adjust for different effective tax rates banks are subject to). The return on assets ratio (ROA) is also used, which measures the efficiency of management in using assets to realize profits. ROA is calculated by dividing net income before tax by the average assets of the previous two years.

TABLE 4. CAMELS CLASSIFICATION OF EARNINGS CAPACITY

Classification Score	Classification Type	Net Income before Tax / Total Assets	Net income before Tax / Shareholder Equity
1	Strong	More than 2%	More than 16%
2	Good	2% -1.1%	10% -15%
3	Acceptable	1% - 0.6%	10% -7%
4	Weak	0.5% - 0.25%	6% -2%
5	Very Weak	Less than 0.25% or losses	Less than 2% or losses

5. LIQUIDITY

The importance of liquidity was underscored during the global financial crisis of 2007-2008 and yet again during the COVID-19 pandemic. During the former, liquidity issues quickly transformed into solvency issues, and for the latter, short-term liquidity injections effectively masked longer-term solvency issues. Liquidity is the bloodline of a financial institution's operations. Liquidity protects banks from bankruptcy risk and the ability to cover liabilities owed to depositors and other creditors. This distinguishes banks from corporates in that banks cannot postpone cashing a check drawn or the payment of a maturing deposit. Similarly, a bank cannot require borrowers to pay off loans that have not yet matured. For these reasons, banks must maintain sufficient liquidity buffers, of which a sizable component should be high-quality liquid assets (HQLA), and supervisory authorities must maintain strong oversight of banks' management of liquidity on a microprudential level and a systemic level. Because of its critical importance, the banking law in Yemen and associated instructions include setting a minimum level of reserves for deposits in LCY and in FCY and cash that each bank must maintain. Banks are subject to a fine in the case of a breach thereof.

Generally speaking, liquidity can be defined as the ability to convert assets into cash quickly without incurring a loss. For banks, liquidity can be defined as their ability to meet depositors' withdrawals and creditor's needs in a reasonable time, without the need to sell some of its assets at a large loss or borrow money at high rates of interest.

CAMELS classifications of bank liquidity are as follows:

1) A high level of liquidity characterizes a rating of 1. The bank has liquid and semi-liquid assets, of which a significant portion is in the form of high-quality liquid assets (HQLA) that can be easily

liquidated without unexpected losses within a reasonable timeframe, and the Central Bank is satisfied with light touch supervisory oversight of this bank's liquidity. The following minimum quantitative indicators characterize a level 1 rating:

- Availability of liquid assets to meet deposit withdrawals, demand for credit, in addition to any unexpected withdrawals, and the bank's liquidity ratios are strong;
- Limited reliance on interbank borrowing to finance liquidity needs;
- No significant concentration in deposits, and most deposits are stable;
- Net stable funding on the whole as a sizable proportion of total funding sources;
- The bank has a sound policy for managing asset-liability maturity mismatches and has gap limits by maturity bucket, which are strictly adhered to.

2) A score of 2 is characterized by good liquidity and sources of financing. The following minimum quantitative indicators characterize it:
    - The bank generally demonstrates the same characteristics as a rating of 1, but with some minor weaknesses in one or more factors, which the bank can correct without direct Central Bank supervision. These include:
        - Small liquidity problems that, despite appropriate corrective measures, did not prevent their recurrence;
        - Negative trends in the bank's liquidity position (e.g., low level of liquid assets, increased instability of deposits);
        - Some dependence on interbank borrowing to fund liquidity needs, though at a relatively low level.
        - Some concentration in deposits although most deposits are stable;
        - Net stable funding, on the whole, comprises a moderate proportion of total funding sources;
        - The bank has a sound policy for managing asset-liability maturity mismatches and has gap limits by maturity bucket, which is somewhat adhered to.

3) An acceptable level of liquidity characterizes a level of 3, and the bank has adequate sources of available financing. The following minimum quantitative indicators characterize it:
    - There is a major weakness in one or more of the grade 1 rating factors that, if not corrected, could lead to frequent liquidity problems and, in turn, to insolvency. Central Bank regulatory intervention is also required based on a mutual agreement regarding appropriate corrective measures. Level 3 is characterized by some or all of the following characteristics:
        - Significant decrease in liquidity ratios that come very close to the minimum prudential requirement set by the central bank;
        - Frequent reliance on interbank borrowing to fund liquidity needs in relatively large amounts.
        - Net stable funding, on the whole, comprises a small proportion of total funding sources;
        - The bank has some policy for managing asset-liability maturity mismatches and has gap limits by maturity bucket, which is somewhat adhered to.

4) A rating of 4 is characterized by low liquidity and the lack of appropriate funding sources. Major weaknesses in many of the components mentioned in the classification of rating 1, requiring strong and immediate corrective measures. The bank also requires intrusive Central Bank

oversight to ensure corrective action implementation on an ongoing basis. A grade 4 classification reflects the following minimum quantitative indicators:

- Liquidity ratios much lower than those set by Central Bank prudential requirements;
- The bank suffers from excessive liquidity shortages and related issues.

5) A liquidity rating of 5 has characteristics that could lead to bank failure, requiring urgent Central Bank intervention to implement corrective measures. The situation is such that Central Bank support in providing lender of last resort (LOLR) liquidity assistance or other forms of external financing is needed to protect the bank from collapsing due to its inability to meet depositor and creditor demands. Classification 5 is characterized by the following:
    - There are major and fundamental weaknesses in most if not all of the elements of a level 1 rating;
    - The bank suffers from severe liquidity problems that could easily turn into insolvency in the absence of Central Bank emergency support, which would render it unable to meet depositor and creditor demands.

Many ratios can be used to measure liquidity, the most important of which are the ratios of statutory liquidity, liquid assets to total assets and liquidity gaps by maturity bucket, Liquidity Coverage Ratio (LCR), and Net Stable Funding Ratio (NSFR).

TABLE 5. CAMELS CLASSIFICATION OF LIQUIDITY

Classification Score	Classification Type	Ratio of Liquid Cash Assets at the Central Bank and Banks to Total Assets	Prudential Liquidity Ratio According to Central Bank Guidelines
1	Strong	More than 40%	More than 40%
2	Good	31% -40%	36% -40%
3	Acceptable	25% -30%	31% - 35%
4	Weak	15% -24%	25% - 30%
5	Very Weak	Less than 15%	Less than 25%

6. SENSITIVITY

The sensitivity to market risk reflects the degree to which changes in interest rates, foreign exchange rates, commodity prices, or equity prices can adversely affect a bank's earnings or capital. These are especially pertinent in the case of Yemen. When evaluating this component, consideration should be given to management's ability to identify, measure, monitor, and control market risk; the institution's size; the nature and complexity of its activities; and the adequacy of its capital and earnings in relation to its level of market risk exposure.

For many banks, the primary source of market risk arises from non-trading (banking book) positions and their sensitivity to changes in interest rates. In some larger institutions, foreign operations can be a significant source of market risk. For some institutions, trading activities are a major source of market risk.

Market risk is rated based upon, but not limited to, an assessment of the following factors:

- The sensitivity of the bank's earnings or capital to adverse changes in interest rates, foreign exchange rates, commodity prices (oil in the case of Yemen), or equity prices. ·
- The ability of management to identify, measure, monitor, and control exposure to market risk given the institution's size, complexity, and risk profile.

- The nature and complexity of interest rate risk exposure arising from non-trading (banking book) positions.
- Where appropriate, the nature and complexity of market risk exposure arising from trading and foreign operations.

1) A rating of 1 indicates that market risk sensitivity is well controlled and that there is minimal potential that the earnings performance or capital position will be adversely affected. Risk management practices are strong for the size, sophistication, and market risk accepted by the institution. The level of earnings and capital provide substantial support for the degree of market risk taken by the institution.

2) A rating of 2 indicates that market risk sensitivity is adequately controlled and that there is only moderate potential that the earnings performance or capital position will be adversely affected. Risk management practices are satisfactory for the size, sophistication, and market risk accepted by the institution. The level of earnings and capital provide adequate support for the degree of market risk taken by the institution.

3) A rating of 3 indicates that control of market risk sensitivity needs improvement or that there is significant potential that the earnings performance or capital position will be adversely affected. Risk management practices need to be improved given the size, sophistication, and level of market risk accepted by the institution. The level of earnings and capital may not adequately support the degree of market risk taken by the institution.

4) A rating of 4 indicates that control of market risk sensitivity is unacceptable or that there is a high potential that the earnings performance or capital position will be adversely affected. Risk management practices are deficient for the size, sophistication, and level of market risk accepted by the institution. The level of earnings and capital provide inadequate support for the degree of market risk taken by the institution.

5) A rating of 5 indicates that control of market risk sensitivity is unacceptable or that the level of market risk taken by the institution is an imminent threat to its viability. Risk management practices are wholly inadequate for the size, sophistication, and level of market risk accepted by the institution.

7. COMPOSITE CLASSIFICATION

CHARACTERISTICS OF COMPOSITE CLASSIFICATIONS

The composite classification is based on the weighted average of the six CAMELS factors as per the Central Bank's view of the relative importance of each factor. The weights are dynamic and reset periodically based on the general systemic conditions that require more or less supervision of certain components as the case may be. In general composite ratings ranging from 1 to 5 could be interpreted as per below:

1) A composite rating of 1 is issued to banks that are stable in all respects and that are effectively managed. This bank needs only regular Central Bank monitoring and routinely corrects identified weaknesses with little expectation that they will resurface. Usually, an aggregate level 1 bank will have received a grade of 1 or 2 on the main components of CAMELS and is

characterized as being strongly committed to Central Bank instructions. Additionally, it will possess high-quality assets, a low level of poor-performing assets to capital and reserves, and robust risk management.

2) A composite rating of 2 is issued to banks that are stable in all respects and that are effectively managed. There are no major Central Bank concerns regarding their continuity. While there are slight operational weaknesses, these can be corrected within a reasonable timeframe and direct Central Bank supervision. This bank is characterized as largely committed to Central Bank instructions, asset quality is satisfactory, and low level of non-performing assets to capital and reserves. Its size and the nature of risks to which it is exposed are acceptable in relation to the size of its capital and management expertise. Usually, no component of its CAMELS classification is rated higher than 3.

3) A composite rating of 3 indicates a Bank faces several major weaknesses. There is a decline in asset quality or an increase in risks to which it is exposed. Usually, it is not in compliance with several major aspects of Central Bank requirements. It does not address weaknesses in a reasonably timely manner, which can lead to major liquidity and solvency issues. Such a bank requires strong and continuous Central Bank regulatory intervention and agreement with Central Bank on appropriate corrective measures.

4) A composite rating of 4 signals very poor performance caused by financial deficits, low-quality assets, and a high level of non-performing assets that constitute a high percentage of the bank's capital and reserves and threaten to cause significant losses that may affect its business continuity. There are fundamental violations of Central Bank instructions, and the bank does not adhere to sound safety practices. Absent Central Bank intervention and immediate corrective action and follow-up, its financial solvency and business continuity are seriously threatened.

5) Banks that receive a composite rating of 5 have very large and extensive financial deficits. Non-performing assets to capital and reserves are very high and constitute a major threat to their survival, while the magnitude and gravity of issues exceed management capacity. The probability of a bank with a 5 rating failing is very high. There is a need for emergency external liquidity and financial support in addition to strong, immediate, and continuous Central Bank monitoring of the implementation of corrective measures, including removal of some members of the board of directors and senior executives and potentially the appointment of a committee to assume the bank's administration or liquidation.

8. CAMELS WEIGHTS

To calculate a bank's composite classification, a weight is assigned to each factor of the CAMELS model according to its relative importance. Adjustments can be made to assigned weights owing to changes in the banking environment and the relative importance of each factor. The proposed weights below take into consideration the current banking environment in Yemen.

TABLE 6. RELATIVE IMPORTANCE OF EACH CAMELS FACTOR	
Classification Component/Factor	**Proposed Weights of CAMELS Components***
Capital	**20%**
Assets	**20%**
Management	**10%**
Earnings	**10%**
Liquidity	**10%**
Sensitivity	**30%**

*Source: Pragma ERLP Team. Proposed weights mapping given current systemic sector conditions.

After multiplying each CAMELS component classification score by their respective proposed weight, the results are collected, and the outcome of the composite rating determines the category of composite classification. The composite rating category, which consists of 5 grades, ranging from 1 (best) to 5 (worst), is shown in the table below:

Table of composite classification indicators for CAMELS model elements

TABLE 7. COMPOUND CLASSIFICATION INDICATORS OF CAMELS COMPONENTS		
Compound Classification Grade	**Weighted Composite Classification Category**	**Indicator**
1	1-1.49	Strong
2	1.5-2.49	Good
3	2.5-3.49	Acceptable
4	3.5-4.49	Weak
5	4.5-5	Very Weak

Example: The component CAMELS classification for Bank X was as follows:

- Capital Adequacy (3), Asset Quality (3)
- Management (4), Earnings (3)
- Liquidity (3), Sensitivity (5)

The general classification of the bank is calculated as follows:

- Capital Adequacy: 3 * 20% = 0.6
- Assets: 3 * 20% = 0.6
- Management: 4 * 10% = 0.4
- Earnings: 3 * 10% = 0.30
- Liquidity: 3 * 10% = 0.30
- Sensitivity: 5 * 30% = 1.5
- Total: 3.7

The total composite rating is 3.7, or classification of rating 4, and thus the aggregate bank classification is Weak.

ANNEX I: BASEL COMMITTEE ON BANKING SUPERVISION SUMMARY OF BASLE III HIGH-LEVEL REFORMS

Basel Committee on Banking Supervision reforms – Basel III

Strengthens microprudential regulation and supervision, and adds a macroprudential overlay that includes capital buffers

	Capital					Liquidity
	Pillar 1			Pillar 2	Pillar 3	
	Capital	Risk coverage	Containing leverage	Risk management and supervision	Market discipline	Global liquidity standards and supervisory monitoring
All Banks	**Quality and level of capital** • **Raising minimum common equity** to 4.5% of risk-weighted assets, after deductions. • **A capital conservation buffer** comprising common equity of 2.5% of risk-weighted assets brings the total common equity standard to 7%. Constraints on a bank's discretionary distributions will be imposed when it falls into the buffer range. • **A countercyclical buffer** within a range of 0–2.5% comprising common equity will apply when credit growth is judged to result in an unacceptable build-up of systematic risk. **Capital loss absorption at the point of non-viability** Allowing capital instruments to be written off or converted to common shares if the bank is judged to be non-viable. This will reduce moral hazard by increasing the private sector's contribution to resolving future banking crises.	**Revisions to the standardised approaches** for calculating • **credit risk;** • **market risk;** • **credit valuation adjustment risk;** and • **operational risk** mean greater risk-sensitivity and comparability. **Constraints on using internal models** aim to reduce unwarranted variability in banks' calculations of risk-weighted assets. **Counterparty credit risk** More stringent requirements for measuring exposure; capital incentives to use central counterparties for derivatives; a new standardised approach; and higher capital for inter-financial sector exposures. **Securitisations** Reducing reliance on external ratings, simplifying and limiting the number of approaches for calculating capital charges and increasing requirements for riskier exposures. **Capital requirements for exposures to central counterparties (CCPs) and equity investments in funds** to ensure adequate capitalisation and support a resilient financial system. A **revised output floor**, based on Basel III standardised approaches, limits the regulatory capital benefits that a bank using internal models can derive relative to the standardised approaches.	A non-risk-based **leverage ratio** including off-balance sheet exposures is meant to serve as a backstop to the risk-based capital requirement. It also helps contain system-wide build-up of leverage.	**Supplemental Pillar 2 requirements** address firm-wide governance and risk management, including the risk of off-balance sheet exposures and securitisation activities, sound compensation practices, valuation practices, stress testing, corporate governance and supervisory colleges. **Interest rate risk in the banking book (IRRBB)** Extensive guidance on expectations for a bank's IRRBB management process: enhanced disclosure requirements; stricter threshold for identifying outlier banks; updated standardised approach.	**Revised Pillar 3 disclosure requirements** Consolidated and enhanced framework, covering all the reforms to the Basel framework. Introduces a dashboard of banks' key prudential metrics.	The **Liquidity Coverage Ratio** (LCR) requires banks to have sufficient high-quality liquid assets to withstand a 30-day stressed funding scenario that is specified by supervisors. The longer-term, structural **Net Stable Funding Ratio** (NSFR) is designed to address liquidity mismatches. It covers the entire balance sheet and provides incentives for banks to use stable sources of funding. The Committee's 2008 guidance ***Principles for Sound Liquidity Risk Management and Supervision*** takes account of lessons learned during the crisis. It is based on a fundamental review of sound practices for managing liquidity risk in banking organisations. **Supervisory monitoring** The liquidity framework includes a common set of intraday and longer-term monitoring metrics to assist supervisors in identifying and analysing liquidity risk trends at both the bank and system-wide level.
						Large exposures
SIBs	The Committee identifies global systemically important banks (G-SIBs) using a methodology that includes both quantitative indicators and qualitative elements. In addition to meeting the Basel III risk-based capital and leverage ratio requirements, G-SIBs must have higher loss absorbency capacity to reflect the greater risks that they pose to the financial system. The Committee also developed principles on the assessment methodology and the higher loss absorbency requirement for domestic systemically important banks (D-SIBs).					Large exposures regime established to mitigate systemic risks arising from interlinkages across financial institutions and concentrated exposures.

Source: Basel Committee on Banking Supervision, December 2017.

ANNEX II: SUMMARY OF SELECTED CBY PRUDENTIAL REQUIREMENTS

Prudential Requirement	Threshold	Notes
Minimum Capital Requirement	8%	Regulatory Capital/Risk-Weighted Assets.
Related Party Exposures	15%	Of Shareholder's Equity.
Single Obligor Limit	15%	Of Shareholder's Equity.
Reserve Requirements	7% and 20%	For LCY Deposits and FCY Deposits, respectively.
Loans in FCY	Not Applicable	Loans extended in FCY have to be to borrowers with FCY earnings. It is prohibited to provide FCY loans to borrowers with no FX earnings.

ECONOMIC RECOVERY AND LIVELIHOODS PROGRAM (ERLP) IN YEMEN

ANNEX 19

RECOMMENDATIONS FOR ADJUSTING NATURAL RESOURCE EXTRACTION-BASED REVENUES

March 2021

Prepared for the United States Agency for International Development, USAID Order # 72027920M00001

USAID/Yemen - Economic Recovery & Livelihoods Program (ERLP)

The Pragma Corporation, 116 East Broad Street, Falls Church, VA 22046

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List of Acronyms

CapEx	Capital Expenditures
CBY	Central Bank of Yemen
CIT	Corporate Income Tax
ERLP	Economic Recovery and Livelihoods Project in Yemen
EU	European Union
GDP	Gross Domestic Product
GOY	Government of Yemen
GST	General Sales Tax
IMF	International Monetary Fund
MFW	Ministry of Fish Wealth
MOA	Ministry of Agriculture
MOF	Ministry of Finance
MOSA	Ministry of Social Affairs
OECD	Organization for Economic Cooperation and Development
OpEx	Operating Expenditures
PIT	Personal Income Tax
PSA	Production Sharing Agreement
SME	Small and Medium-sized Enterprises
SOE	State Owned Enterprise
UAE	United Arab Emirates
UNDP	United Nations Development Program
USAID	United States Agency for International Development
USD	United States Dollar
VAT	Value Added Tax
WB	World Bank
YER	Yemeni Rial

INTRODUCTION

This evaluation of natural resource revenues in Yemen represents the culmination of multiple consultative meetings conducted remotely and in-person with Yemen's officials from the MoF and Tax Authority. Moreover, during a recent ERLP-sponsored visit to Cairo, the MOF specifically requested that ERLP experts examine the potential of increasing tax and non-tax revenues from Yemen's fisheries sector, which accounts for about 15 percent of GDP. Therefore, the main objective of this report is to review and evaluate existing natural resource revenue generation priorities in Yemen, including a detailed focus on the fisheries sector—a historically important industry supporting the livelihoods of thousands of coastal residents and generating substantial export earnings.

CONTEXT

Pre-conflict, oil represented Yemen's most important economic sector, accounting for approximately 70 percent of total government revenues. Protracted internal conflict, the COVID-19 induced global economic slowdown, and to some extent increasing attention to the production of clean energy, have considerably reduced global demand for fossil fuels. For these and other reasons, oil prices are expected to remain low, hovering around USD 50-60/barrel over the 2021-22 time horizon. Nevertheless, in the short term, ERLP advisors estimate that oil revenues will increase in 2021, from YER 330 billion in 2020 to YER 887.5 billion in 2021. At the same time, non-oil tax revenues (including customs) are expected to increase by about 26% in 2021, reaching 758 billion YER by the end of the year compared to 600 billion YER in 2020.

Table 1: Non-Oil revenues in YER billion

	2019 Actual[1]	2020 (ERLP Estimate)	2021 (ERLP Forecast)
Total non-oil revenues	443	600	758
Total domestic taxes	**221**	**230**	**280**
Central government account taxes	221	225	274
Income taxes	*96.6*	*96.8*	*118*
General sales tax	*123.9*	*127.6*	*155.5*
Other taxes	*0.2*	*0.4*	*0.5*
Local account tax receipts	-	0.6	0.7
Common account tax receipts	-	4.8	5.8
Customs	**97.1**	**115.3**	**138.0**
Dividends, sale of crude oil and gas, grants	**48.0**	**248.1**	**332.9**
Grants	48	94	148
Other revenues	**77.6**	**6.2**	**7.5**

Source: MOF, MOP & ERLP estimates

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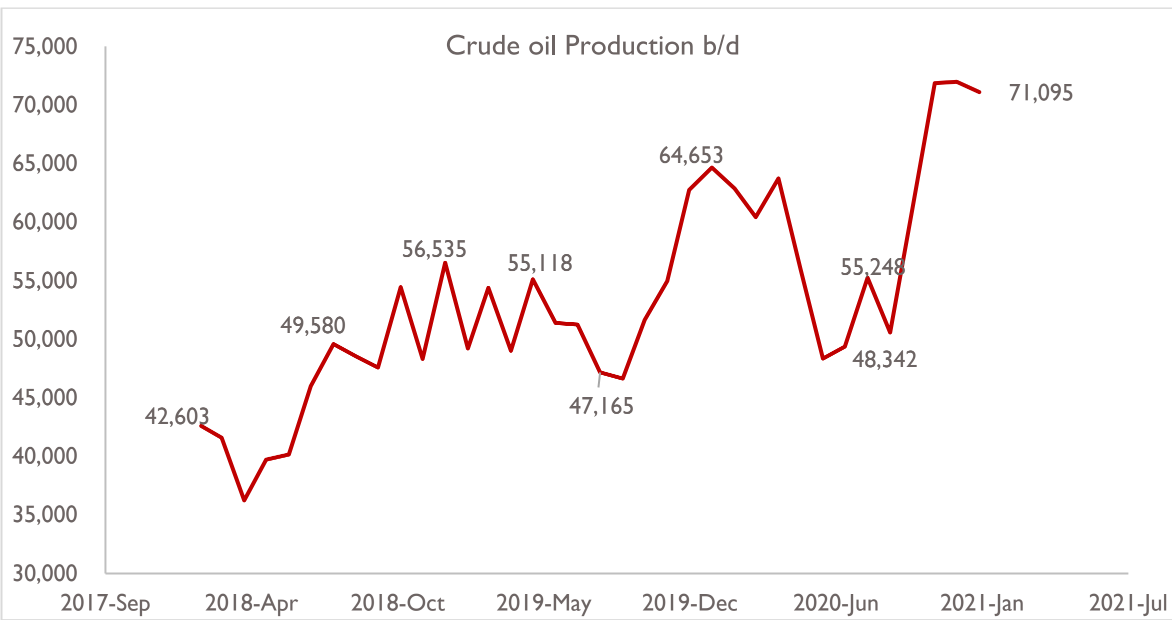
REVIEW OF OIL REVENUE SYSTEM IN YEMEN

CURRENT STATUS

Since 2014, the energy sector has been severely impacted by civil war, with pipelines and port facilities disrupted repeatedly and foreign firms forced to abandon operations and evacuate staff. In 2015, nearly all oil and gas production was shuttered. In 2016, petroleum and production fell to less than 15 percent of pre-2015 levels, i.e., from an average of 125,000 barrels per day (b/d) in 2014 to a low of 18,000 b/d in 2016. The Aden refinery was shut down in April 2015 and sustained further damage from attacks by opposition forces in July of that year.

Over the past few years, however, crude oil production has improved, increasing to approximately 46,000 b/d in 2018 and about 60,000 b/d in 2020. This was mainly due to the restoration of production from Blocks 14 and 10 by state operator PetroMasila. In 2018, Yemeni state company Safer Exploration & Production restarted production in Block 18, located in Yemen's oil-rich Marib Basin. In 2019, the French company Total sold its stake in Block 5, then Yemen's second-largest producing block, which had stopped production in 2015. It is expected to resume operations in mid-May 2021. In 2019, Cyprus's Calvali Petroleum Inc. restarted operations in Block 9 between the Shabwa and Masila basins (Figure 1).

Figure 1: Crude Oil Production, (Sept. 2017 – Jan. 2021)



Source: MOP

Yemen resumed limited crude oil exports in August 2016. In July 2018, Austria's OMV exported crude from the Shawba Basin's Habban field in Block S2 through the Bir Ali terminal. Bir Ali exports are expected to expand further in 2021. Since 2018, China has been the primary buyer of Yemen's export-grade, Masila oil from the south-eastern Ash Shihr terminal. Ash Shihr loadings are on pace to reach more than 35,000 b/d in 2021, its highest level since 2014. However, exports from the port of Hodeidah Al Hudayah have been halted since 2016 due to nearby fighting. Despite these improvements, Yemen continues to import refined products from the United Arab Emirates (UAE) and other countries.

Additionally, the country's only liquefied natural gas (LNG) plant has been closed since April 2015 -- when Total, the largest stakeholder at the Balhaf facility, left the country.

Currently, Yemen has seven active production facilities. Two are state-owned and operated. The other five are privately owned operated, some partially owned by the state (Table 3).

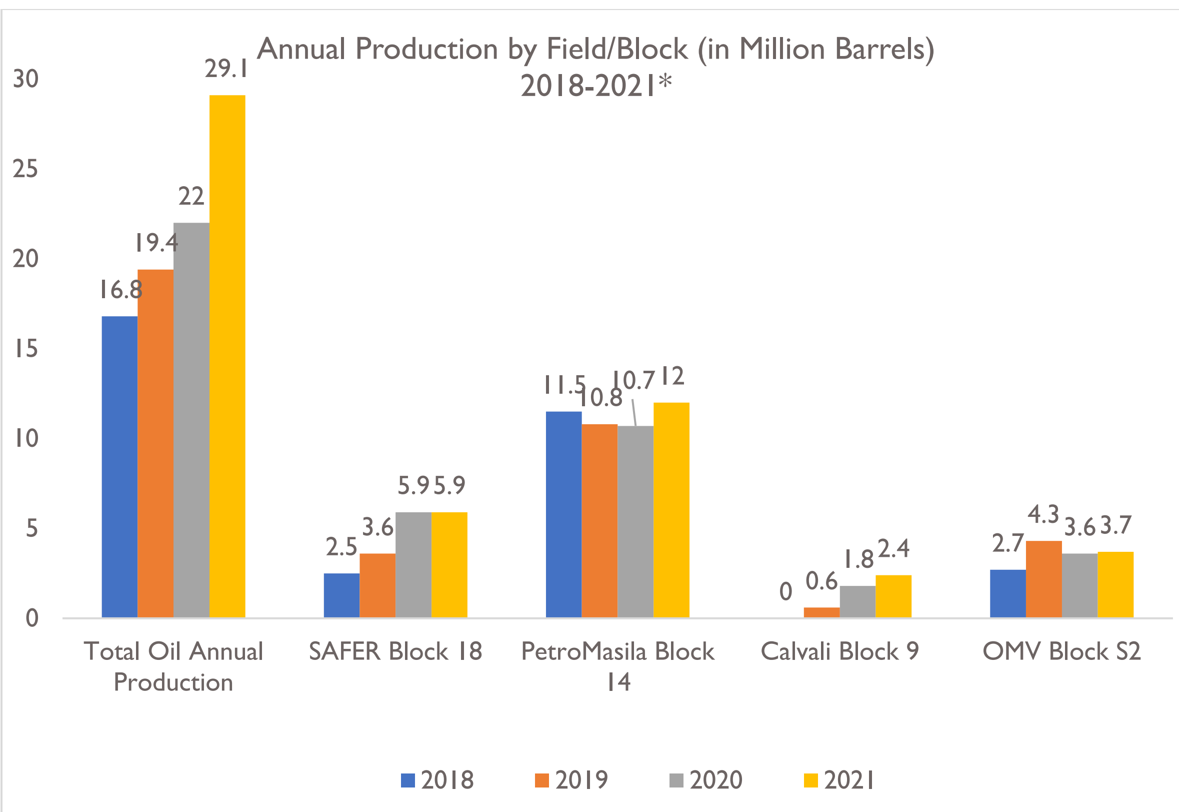
Table 3: Petroleum Projects by Ownership/Block and Current Operational Status

	Company Name	Blocks	Production Start Date	Current Operational Status
A) State-Owned Oil Projects				
1.	SAFER	Block 18	1986	Operating
2.	Petro Masila	Blocks 10,14, 51 and 53	1993	Operating
B) Privately-Owned Oil Projects				
3.	Gana	Block 5	1996	Resuming operations in April 2021
4.	Occidental	Block S1	2004	Not Operating
5.	Ayad	Block 4	1992	Operating
6.	Calvali	Block 9	2005	Operating
7.	OMV	Block S2	2006	Operating

Source: MOP & MOF

In 2021, total oil production is expected to increase by 32 percent, from 22 million barrels in 2020 to 29 million barrels. This increase is primarily driven by expanded production in four of the seven existing fields and the resumption of production in Block 5 (Gana field) in April 2021. Gana is expected to produce 5.1 million barrels by the end of this year, which will offset the anticipated 50% decrease in Block 4 (Figure 2).

Figure 2: Annual Production by Field/Block (2018-2021)



Source: MOP

* The production operations in Block 4, Block S1, and Block 5 (Gana) have been suspended since 2015 to date. However, MOP announced that Block 5 (Gana) is going to resume its activities in the second half of 2021, reaching an estimated total production of 5 million barrels by the end of the year.

REVIEW OF YEMEN'S OIL REVENUE REGIMES

There are two distinct oil revenue regimes in Yemen: one for state-owned enterprises (SOEs), which are under the supervision of the Yemen Oil and Gas Corporation, and another for privately owned enterprises (including those with partial state ownership).

The revenue system for the country's two SOEs (Petro Masila and SAFER) is relatively simple and direct. All sales revenue goes to the government, and the government covers all costs. Revenue from these two projects constitutes 'Net government take,' equal to gross sales minus operating expenses (OpEx).

For privately-owned enterprises, the government receives revenue from three separate revenue streams: (a) royalty payments; (b) a share of "profit oil";[2] and (c) a share of jointly owned projects. The rates for each vary according to the terms of their respective Production Sharing Agreement (PSA) and production levels. Furthermore, each PSA imposes limits on the operating and capital expenses that can be recovered.

ROYALTY REGIME

Yemen's two SOEs, Petro Masila and SAFER, do not generate royalties since the government fully owns them. Private companies, on the other hand, pay royalties in accordance with their respective PSAs. The rates vary from 3-10 percent of gross income (see Table 4).

Table 4: Royalty Rates by Field as per PSA

Field	Current Production Tranche (Tranche 1 = 1-25,000 b/d)	% Royalty as per PSA
1. SAFER Block 18	1	0%
2. Petro Masila (Block 14, 10, 51, 53)	1	0%
3. Gana (Block 5)	1	5%
4. Occidental Block S1	1	3%
5. Ayad Block 4	1	3%
6. Calvali Block 9	1	10%
7. OMV Block S2	1	3%

Source: MOF & MOP

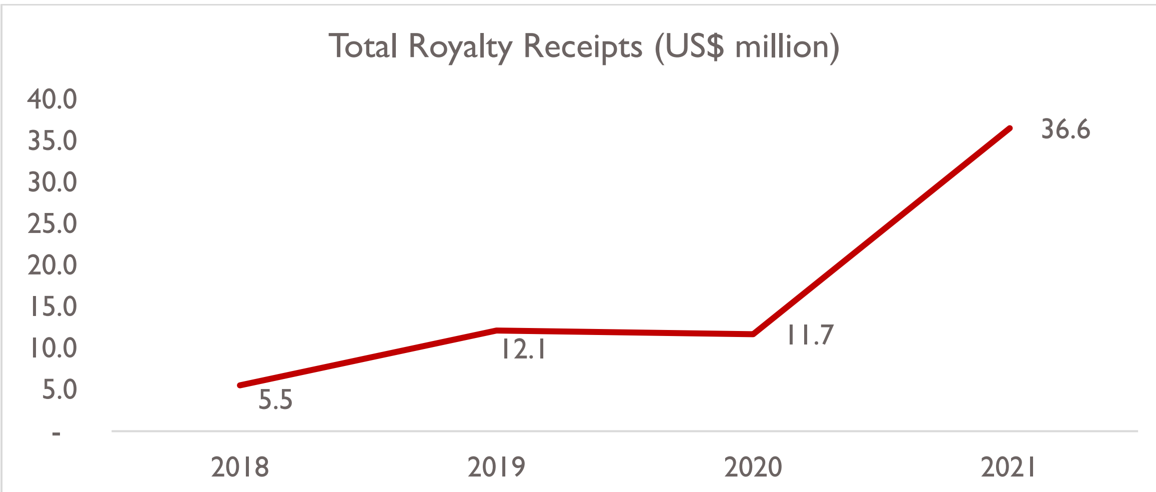
Royalties are calculated as a percentage of gross income. Gross income is equal to total production multiplied by the sale price (crude oil Brent price)

[2] Oil companies bear the mineral and financial risk of prospecting and exploration and then develop and ultimately produce the field. When successful, the company is permitted to use the money from oil produced to recover capital and operational expenditures, known as "cost oil". The remaining money is known as "profit oil" and is split between the government and the company. In most PSAs, changes in international oil prices or production rates affect the company's share of production.

Royalty Receipts = Royalty Rate x Gross Income

In the CY2021 budget, royalty receipts are expected to increase by close to 212 percent and reach about US$36.6 million, compared to US$1.7 million in CY 2020. This massive increase is primarily explained by the US$5.5 million expected to be collected from *Gana* (Block 5), which, as previously noted, should resume operations in May 2021. In addition, *Calvali* royalty receipts doubled in CY 2021 to US$14 million due to a significant increase in production quantities.

Figure 3: Total Royalty Receipts, US$ million (2018-2012)



Source: MOP

PROFIT OIL

As previously mentioned, the Government of Yemen also receives revenue from private companies in the form of "profit oil.". Profit oil is equal to net oil revenue minus operating expenses (OpEx) and capital expenses (CapEx), as shown below:

Profit oil = Net oil revenue – Total "Cost Oil" (OpEx + CapEx)

The government's share of profit oil is calculated as a percentage of the profit oil realized by each company:

*Government share of Profit Oil = Profit Oil * Rate*

This percentage rate varies from one PSA to another according to expected production levels designated in tranches. Tranches range from 1 to 6. Tranche 1 typically represents production levels of 25,000 b/d, with two notable exceptions: Occidental (12,500 b/d) and OMV (15,000 b/d). Each succeeding tranche represents a higher level of production in terms of b/d. The higher the tranche, the higher the government's share of profit oil. The basic principle is that tranches higher than 1 represent a windfall for the company, and thus the government is entitled to a higher share of the profit oil. Table 5 below shows the production level for each tranche and corresponding the government's share of profit oil.

Table 5: Government Profit Share (%) according to each Production Tranche*

	Tranche	Gana Hent 5	Occidental S1	Investments 4	Calvali** 9	OMV S2
Production level for each tranche (barrel/day)	1	25,000	12,500	25,000	25,000	15,000
	2	50,000	25,000	50,000	50,000	25,000
	3	75,000	50,000	100,000	75,000	50,000
	4	100,000	75,000	150,000	100,000	75,000
	5	125,000	110,000	200,000	999,999,999	100,000
	6	>125000	>110,000	>200,000		>100000
Government profit-share within each tranche (%)	1	72.50	65.00	76.00	70.00	60.00
	2	75.00	70.00	78.00	72.00	65.00
	3	80.00	72.50	80.00	75.00	70.00
	4	85.00	75.00	82.00	77.50	75.00
	5	87.50	77.50	84.00	80.00	75.00
	6	90.00	80.00	86.00		80.00

Source: MOP & MOF
*SAFER and Petro-Masila are state-owned enterprises. Therefore the government retains the integrity of the profits
** There are five production tranches listed In the PSA of Block- 9 Calvali, and six production tranches listed in the PSAs of blocks 5, S1, 4 and S2

PROFIT SHARING

For jointly owned projects between a private company and the state, there is another type of revenue, the national oil share, which is calculated as a percent of the national contractor's share. This share is computed after deducting the government's share of "profit oil." This is in addition to oil share for fields/projects that are jointly owned by private companies and the state. Profit-sharing rate are determined in the PSA with each company and varies according to projected production levels. Currently, all fields/projects are classified as tranche 1, i.e., up to 25,000 b/d.

*National Partner's Oil = Contactor share * Rate*

The profit-sharing parameters for the national partner in jointly owned projects are determined after deducting the government's share, as per the data received from the Ministry of Oil and Mining. Currently, there are three projects that are jointly owned by foreign companies and national partners: *Occidental* (Block S1), *Calvali* (Block 9), and *OMV* (Block S2).

Currently, the production level of all fields falls into tranche 1. Table 6 below shows the government's profit-sharing rates and national oil profit share rates that constitute the base for the government's share of receipts in 2021.

Table 6: Government Production Share vs. Source: Contractor Production Share

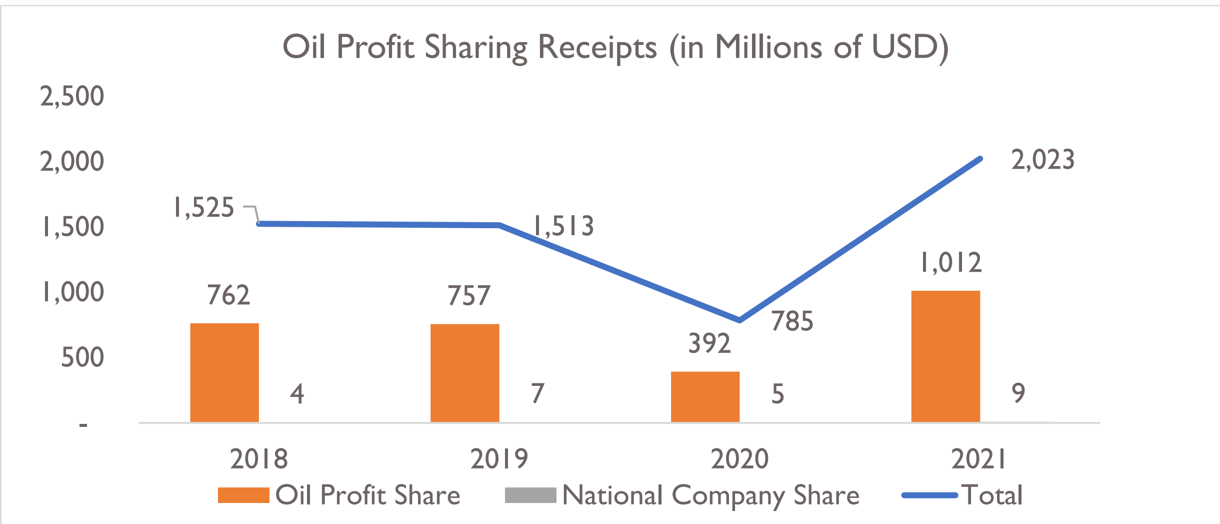
Field	Government Production Share (according to the PSA) (%)	Contractor Production share (according to the PSA) (%)
SAFER (Block 18)	100	0
PetroMasila (Block 14, 10, 51, 53)	100	0
Gana (Block 5)	72.5	27.5
Occidental (Block S1)	65	35

Field	Government Production Share (according to the PSA) (%)	Contractor Production share (according to the PSA) (%)
Investments (Block 4)	50	50
Calvali (Block 9)	70	30
OMV (Block S2)	60	40

Source: MOP

Revenue receipts from the government's share of profit oil represent roughly 98 percent of total government oil sector revenue. More than 70 percent of the government's share comes from the two SOEs, *SAFER and Petro Masila,* with 100 percent of their net revenues going to the government per their respective PSAs.

Figure 4: Government Revenues from Profit sharing (excluding royalties), in US$ millions (2018-2021)



Source: MOP

CORPORATE INCOME TAX

All oil sector companies in Yemen are exempt from corporate income tax (CIT). PSAs implicitly include elements of both resource rent for a depleting asset and income taxation.

GENERAL SALES TAX

Imported petroleum products such as mazut, kerosene, solar are subject to a 5 percent sales tax on the final consumer sale price. While 100 percent of petroleum products are imported (mostly from UAE), not all importers file tax returns. According to the Tax Authority, for those businesses that are selling products outside government-controlled areas, the Tax Authority cannot collect the receipts at the point of sale. A temporary solution established in 2018 requires importers to pay an additional 5 percent at customs' borders, on top of the 5 percent general rate required under the GST. A permanent solution will need to be put in place once peace is restored.

According to Tax Authority data collected over the period from August 2019 to March 2021, approximately 27 companies are currently importing petroleum products subject to GST. It is noteworthy that based on the Customs Law (No. 14 of 1990), as amended (No. 12 of 2012), all petroleum products that are in the form of grants from other countries are exempt from customs and sales tax.

MAJOR REFORM ISSUES RELATED TO THE OIL REVENUE REGIME

Revenues from oil extraction have significant macroeconomic implications. They often account for over half of government revenue in oil-rich countries. Dependence on oil revenues in many resource-rich countries has increased. Revenue objectives are an important consideration in designing fiscal regimes for the oil sector but involve complex trade-offs. Generating employment in related activities, and addressing environmental impacts, can be significant concerns, though the revenue from oil is typically the main focus of the host country. Fundamentally revenue extraction arrangements in the oil sector are based on the notion of resource rents -- in excess of the minimum return required by the investor -- arising from the relative fixity of supply of the underlying resource.

The importance and complexity of petroleum operations are matched by the importance and complexity of finding ways to tax them effectively. The exhaustibility of deposits in the oil sector has led to a proliferation of creative instruments and analytical methodologies to effectively maximize the extraction of income flows from exploiting these fixed assets. Within this context, key tax design issues include dealing with time (long-term commitment), uncertainty (especially in a conflict zone or a fragile state), time consistency (the 'obsolescing bargain'[3]), asymmetric information, and international question focusing on transfer pricing and profit shifting.[4]

FISCAL INSTRUMENTS PREVALENT IN THE OIL SECTOR AND THEIR RATIONALE

Fiscal regimes for the oil sector vary greatly around the world. Data analyzed by the IMF suggest that the government share ranges from 65–85 percent.[5] Country circumstances require tailored advice, but a regime combining a royalty and a tax targeted explicitly on rents (along with the standard corporate income tax) is widely used in many developing countries. Such a regime ensures that some revenue arises from the start of production and that the government's revenue rises as rents increase with higher commodity prices, lower operating costs, or higher than projected production.

Today, natural resource fiscal regimes around the world typically employ a mixture of royalties and income-based levies. This mixture affords a balance of protection against financial risks to governments, as well as foreign investors. No single system will suit all countries and all circumstances. For instance, in the case of Yemen, the French producer *Total* abandoned its oil project due to the war. Governments that are highly dependent on only a few oil fields may face a more acute time consistency problem than

[3] The "obsolescing bargain model" stipulates that the initial bargain favors the foreign investor, but relative bargaining power shifts to the host country government over time as the investor's assets are transformed into sunk costs. Once bargaining power shifts from the foreign investor to the host country, the government imposes more conditions on the MNE, ranging from higher taxes to complete expropriation of assets.

[4] Boadway, Robin and Michael Keen (IMF 2008). *Theoretical Perspectives in Resource Tax Design*; in Taxing Natural Resources: New Challenges, New Perspectives, IMF paper. September 2008.

[5] International Monetary Fund (2012). *Fiscal Regimes for Extractive Industries: Design and Implementation.* Fiscal Affairs Department. August 15, 2012.

those with prospects for further exploration and development. Low-income countries may reasonably be expected to discount future oilfields more heavily.

Other features that matter includes the government's accrued credibility, the survival prospects of the incumbent regime, perceptions of national (and subnational) sovereignty, and popular attitudes towards rents accruing to private firms - often foreign. These can all powerfully impact the effects, and hence also the proper choice, of the oil revenue regime which is put in place. In the natural resource sector, technical design issues, such as the respective roles and design of royalties and rent capture devices tend to turn critically on considerations of political economy.[6]

Over the course of the past 60 years, the balance here has shifted away from royalties toward the use of levies based on net income. Although producing countries typically use royalties and income taxes, income-based taxes have gained ground in terms of their relative importance. However, it is worth noting that income-based measures create greater vulnerability to taxpayer avoidance.

In this regard, companies pay royalties based on the gross value of product extracted from an oil field, whereas they pay income taxes based on their net margin, which typically is much smaller than their gross revenues. Therefore, if a foreign company succeeds in understating the fair market value of its extracted product, the government's revenue losses under a royalty might be negligible, whereas the government's revenue losses under an income-based tax are likely to be much more serious. Also, tax-paying companies frequently overstate deductible expenses, including intragroup technical and management fees and interest paid on loans from related parties. These will not affect the government's take under a gross-income-based royalty regime but can severely reduce revenues under an income-based tax regime.[7]

GENERAL LEGISLATION VERSUS PSA

As in a PSA, the advantages to governments of case-by-case negotiation of fiscal terms are frequently exaggerated.[8] PSAs require detailed knowledge of the prospective profitability of a deposit, about which investors are likely to be better informed. They also require concentration of administrative effort, negotiating skills, and a detailed assessment of each alternative of setting them out in a model agreement can make them little more than a basis for negotiation. Investor's requirements, in many circumstances,

[6] Boadway, Robin and Michael Keen (IMF 2008). *Theoretical Perspectives in Resource Tax Design*; in Taxing Natural Resources: New Challenges, New Perspectives, IMF paper. September 2008.

[7] Readhead, Alexandra (2016). *Preventing Tax Base Erosion in Africa: A Regional Study of Transfer Pricing in the Mining Sector.* National Resource Governance Institute (UK). July 2016.

[8] International Monetary Fund (2012). *Fiscal Regimes for Extractive Industries: Design and Implementation.* Fiscal Affairs Department. August 15, 2012.

may be difficult to achieve. The alternative of setting them out in a model agreement can make them little more than a basis for negotiation.

Administrative costs, political difficulties, and, in all likelihood, an investors' perceived risk can be reduced by legislating terms applicable to all oil projects. In recent decades, many countries have used general fiscal legislation that applies to all natural resource projects rather than case-by-case negotiations. These include advanced industrial countries such as Australia, Canada, and Norway and Bolivia, Brazil, Chile, Indonesia, Namibia, Peru, and South Africa.[9]

Box 1. Forms of Production Sharing

Daily Rate of Production (DROP): Government share of profit petroleum increases with the daily rate of production from the field or license, often with several tiers. Weaknesses are that field size is often a poor proxy for profitability and the mechanism is not progressive with respect to oil prices or costs. Attempts have been made to blend this with a scale of prices.

Cumulative production from project: Government share of profit petroleum as total cumulative production increases—again an inaccurate proxy for the contractor's rate of return. Such schemes are becoming rarer.

'R-Factor': Government's profit share increases with the ratio of contractor's cumulative revenues to contractor's cumulative costs (the 'R factor'). This improves on DROP in being a more direct measure of profitability but does not recognize the time value of money.

Rate of Return (ROR): This is a form of rent tax (provided that exploration is part of costs) under which the government's share is set by reference to the cumulative contractor rate of return, no tax being levied if that falls short of some benchmark rate. Single or multiple tiers are used.

Source: International Monetary Fund (2012). *Fiscal Regimes for Extractive Industries: Design and Implementation.* Fiscal Affairs Department. August 15, 2012

No contract can anticipate all conceivable outcomes. While PSAs are binding, renegotiation of key terms often arises and can be warranted when those terms deviate from a prescribed course or contravene international best practices. For this reason, periodic reviews are increasingly common.

RECOMMENDATIONS FOR YEMEN'S OIL REVENUE REGIME

As is common practice in many resource-rich countries, Yemen employs a mixture of royalties and income-based levies. On average, about 98 percent of oil revenue is income-based, derived from the government's share of "profit oil." Only 2 percent is derived from royalties. Both the terms of royalties and "profit oil" are all stipulated in PSAs. As a result of these income-sharing agreements, oil companies are exempt from CIT as per the terms of the PSAs, implying that there are elements of both resource rent for a depleting asset and income taxation.

In theory, greater reliance on income-based levies mitigates the investing company's risk, thereby enhancing the pool of capital available for natural resource development. However, greater reliance on income-based levies also brings serious - and at times intractable - administrative difficulties; since the measurement of an investor's net income is difficult to verify and more prone to tax avoidance than

[9] Ibid.

basing revenue extraction on the fair market value of extracted oil. This is especially true in countries lacking the administrative capacity to manage complex international transactions.

Regrettably, the Yemeni government is locked into long-term PSAs at this point in time. In principle, it would be ill-advised to renege on those commitments, bringing significant reputational risks. Therefore, the government should consider including a renegotiation clause in future PSAs. Additionally, the government should also publish the main parameters of the PSAs, and any subsequent amendments, as this has been shown in other cases to deter corruption and produce outcomes that are sustainable and in the mutual interest of all parties.

As previously mentioned also, PSAs rely excessively on income-based revenues. For this reason, the government should avoid fiscal instruments that reflect excessive reliance on income-based levies, as again, the loss of revenues from noncompliance appears more serious than any incremental benefit of income-based taxes from an enhanced economic efficiency standpoint.

Given Yemen's dwindling oil reserves and precarious security environment, prospective investors likely enjoy a relatively strong bargaining position. The government should commission more detailed microsimulation and scenario analysis of oil reserves and price futures by oil experts for future projects to improve transparency and ensure that the most favorable terms can be arrived at.

Developing countries in general, including Yemen, have not developed effective means of enforcing fair market valuations of extracted products or of the amounts of properly deductible related-party expenses. This underscores the importance of intensive administrative training in the area of transfer pricing rules to improve their enforcement capabilities under income-based taxes. These innovations are based in part on the model of "administrative pricing" or "norm pricing" that Norway has pioneered in administering its North Sea oilfields.[10] Looking ahead, the ELRP fiscal team could potentially support building capacity for relevant Tax Authority staff in this vitally important area.

Currently, the Yemeni government imposes fixed royalties that vary from 3-10 percent. To capture windfall profits when oil prices are high, many countries levy royalties that are "progressive," i.e., where royalty rates increase with commensurate market prices.[11] The government should consider the incorporation of progressive royalty provisions in future PSAs as well.

REVENUES FROM YEMEN'S FISHERIES SECTOR

As highlighted earlier, the review of revenue from Yemen's fisheries sector was initiated with a request by the MOF to examine and propose recommendations for improving revenue performance from this historically important sector of the Yemeni economy. Accordingly, ERLP experts examined the possibilities for augmenting revenue resources from the fisheries sector based on an analytical review of revenue extraction arrangements for the sector in Yemen and internationally. In-depth discussions and information gathering activities with the MOF and with a range of market participants.

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[10] Readhead, Alexandra (2016). *Preventing Tax Base Erosion in Africa: A Regional Study of Transfer Pricing in the Mining Sector.* National Resource Governance Institute (UK). July 2016.
[11] Ibid.

REVIEW OF THE FISHERIES SECTOR IN YEMEN

As mentioned earlier, the fisheries sector is the second most important sector of the Yemeni economy, accounting for about 15 percent of the GDP. It is also the greatest contributor to the country's GDP after oil and gas. Fishing in Yemen is mostly artisanal, providing a major source of employment and earnings for hundreds of thousands of coastal families. The most important fishing areas are the Gulf of Aden (Aden Governorate), Red Sea (Hodeidah and Arya), Arabian Sea (Mukalla and Al-Muhaira), and the Socotra archipelago.[12]

Prior to the outbreak of war in 2015, Yemen's fishing industry was the most productive sector in Yemen's economy. Today, the sector still provides the main source of food security, earnings, and employment for about 70,000 Yemeni fishermen and their households living along the southern coast, including in 50 localities along the Gulf of Aden and the Arabian Sea. The industry is often the sole source of income for coastal communities. The fisheries industry continues to be a major source of foreign exchange earnings and fiscal revenues for the Government of Yemen. However, it has suffered from a series of institutional and market-linkage constraints that severely inhibit competitiveness and realize robust income generation opportunities.[13]

Yemen's fisheries sector relies on a small-scale, labor-intensive production system by small units of artisanal fishermen. According to the latest data provided by the MOF, there are about 30,000 traditional, small open-decked wooden or fiberglass boats, only a few of which are medium-sized boats (20 meters). They use unsophisticated technology and equipment such as encircling nets, hooks, and Sakhoy cages. There is no processing equipment on board, except for salting, drying, and preserving fish on the ice more rarely. Land-based processing of fish, lobster, shrimp, canned and dried fish, fish oil, and dried fish powder is prevalent in coastal governorates.

THE STATUS OF YEMEN'S FISHERIES INFRASTRUCTURE

Fishing communities in Yemen are highly dependent on the services provided by a number of external actors - cooperatives, auctioneers, traders, transporters, retailers, carpenters, and mechanics. Six operational factories specialize in the fabrication and molding of fiberglass fishing boats, and several private icemaking plants produce blocks of sheet ice near or at fish landing sites. Ice availability is essential to improving the quality and quantity of fish for export.

Before 2015, several projects funded by the WB, European Union (EU), UN Development Program (UNDP), and other donors helped improve the infrastructure vital to the fisheries sector, including seaports, landing sites, connector roads between coastal villages, and laboratories. However, most of these facilities have either been damaged/destroyed, abandoned, or are now only partially operational due to the ongoing conflict. Donor projects also supported the Ministry of Fish Wealth (MFW) creation, and they broadened management of the sector through four Fisheries Authorities located in Aden, Al Mahra, Mukalla, and Hodeida.

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[12] Annex. MOF Response to Questionnaire

[13] USAID (2019). "*The Fisheries Sector in Yemen: Status and Opportunities*". Prepared by the Middle East Economic Growth Best Practices Project - Pragma Corporation, USA. 2019.

FISH PRODUCTION, VALUE CHAIN, AND EXPORTS

Tuna fishing carries a long tradition in Yemen. While many fishermen use fiberglass boats with outboard motors (so-called Huri), many continue to rely on traditional wooden boats (sanduuqs). Tuna fishing in Yemen is not industrialized and does not negatively impact coastal pelagic fish stocks. Historically, fresh tuna was exported to international markets. However, since the onset of conflict in 2015, the absence of air cargo has halted the export of fresh fish, limiting exports to frozen products.[14]

MFW statistics put annual fish production between 150,000 and 250,000 tons. According to the MOF, the average price per kilogram was YER 500 before 2015 and YER 1,000 after 2015. About 40% to 50% of production is exported. Fewer than 20 processors have export licenses to the EU, and just two have FDA approval for exporting to USA markets.[15]

Table 7: Catch Quantities for Yemeni Seafood, 2015-2020

Year	Quantity (000 tons)	Value (YER millions)
2016	140	140
2017	161	161
2018	168	168
2019	191	191
2020	232	232

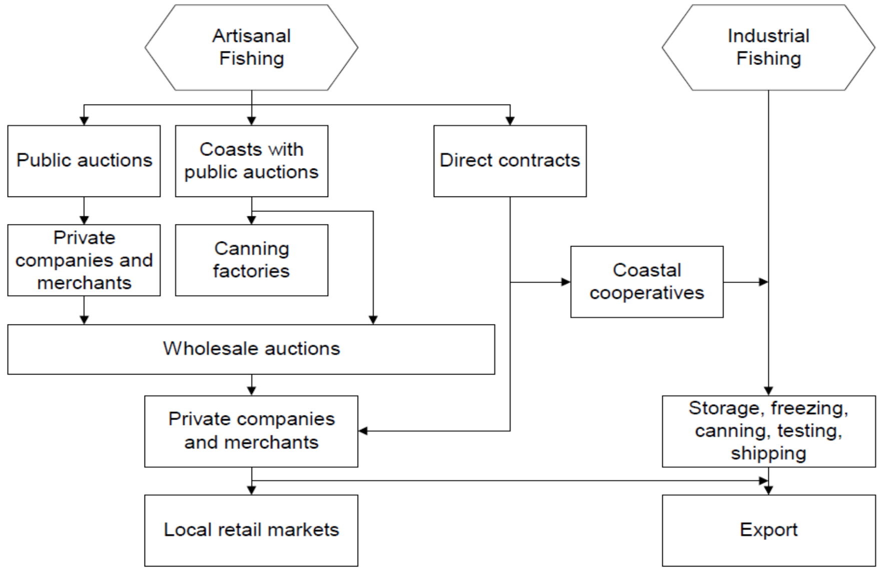
Several Yemeni processors have diversified their product lines by adding value in response to importer demand from Arab, Asian, and EU markets. Nevertheless, new products remain a very small niche market filled by large processors, based on specific orders from international buyers. For example, in 2019, approximately 40 tons of frozen grouper fillets were exported to U.S. markets through the port of Miami. Other value-added products include fish oil and fishmeal (for poultry farms). The value chain of artisanal fisheries to value-added products and exports is illustrated in Figure 5. [16]

[14] USAID (2019). "*The Fisheries Sector in Yemen: Status and Opportunities*". Prepared by the Middle East Economic Growth Best Practices Project - Pragma Corporation, USA. 2019.

[15] ibid

[16] ibid

Figure 5: Artisanal Fisheries Value Chain in Yemen



Source: Fish production and preparation cycle in Yemen: Reference: Trade and Environtment dimensions of the Fishereis sector in the Arab countries: the case of Yemen and Oman (2007).

In Yemen, landed fish are weighed, registered, and auctioned to the highest bidder. Buyers generally have insulated trucks with ice to preserve the fish; and transport them to either a retail destination (e.g., retail shops, restaurants, hotels) or to a processor or exporter with whom the buyer has a contract to supply certain types of fish.

According to data obtained from regional fisheries authorities, the leading export destinations for Yemeni seafood are Saudi Arabia, Egypt, Oman, UAE, and Jordan. The majority of Yemeni seafood exports are chilled, frozen, and trucked overland to Saudi Arabia. Yemeni seafood is also exported to Asia (Thailand, China, and Vietnam), the EU (mainly France and Spain), and the U.S. and other smaller markets. The total value of Yemeni seafood exports in 2018 and 2019 were US$ 12 million and US$14 million, respectively. Yemen's seafood exports are summarized in Table 8, according to their destination-country/market.[17]

Table 8. Fish Export Destinations from Yemen

Countries	Percentage
14 Arab countries	60%
Asian buyers	30%
EU buyers	5%
US and other markets	5%

Source: *The Fisheries Sector in Yemen: Status and Opportunities. 2019*

[17] ibid

Before the onset of war in 2015, four labs in Yemen performed required tests for safety and quality controls of fish exports. Located in Aden, Sanaa, Hodeidah, and Mukalla, some are still operational and continue to perform the required tests. A certificate of analysis for microbial, chemical, and heavy metals for exported fish is imperative for acceptance in export markets.

GOVERNANCE STRUCTURE AND TAXATION IN YEMEN'S FISHERIES SECTOR

The MFW is charged with the management of Yemen's fish resources. The structure of the MFW has changed, and some of its functions have been decentralized. In 2007, it was divided into four semi-independent fishing authorities. The state has a pure role, leaving all fishing and processing activities to the private sector and foreign investors (mostly from Saudi Arabia).

The Fishing Law of 2006 stipulates in Article 17 that a remittance of 3% of the value of the fish sold/auctioned at landing sites must go to the government. However, fishermen have not paid this levy since 2012. Article 18 of the law provides for a service charge of 5% of the sales value of seafood sold at the landing site. These are to be allocated as follows:

- 1% for the owner of the landing site (MFW or fishermen's cooperative)
- 2% for the auctioneer
- 2% for the cooperative in which the fisherman is a member.

Additionally, there is a 20% to 25% tax on the production of large fishing vessels, but this tax has not been enforced since 2015. The MOF also levies an export fee at the following rate: (i)YER 15/kg of fresh fish; (ii) YER 5/kg of frozen fish; (iii)YER 12-15/kg of fish fillets; (iv) YER 150/kg of fresh lobsters: and (v) YER100/kg of frozen lobsters. In 2019 the MFW raised fish export-fees. These new fees are added to an annual export license fee of YER 100,000-200,000 and supplementary lab testing fees.[18]

There are about 70 active cooperatives in Yemen's six coastal governorates. Cooperatives are registered and fall under the supervision of the MFW. Their role is to support the development of small-scale fisheries and to defend local fisher businesses by counterbalancing tribal powers in local communities. Before the onset of the civil war in 2015, cooperatives were a key driving force in Yemen's fisheries sector. They offered services to fishermen and fishing communities, including healthcare, education, social welfare, and water and electricity. Some also processed and exported fish products to the EU. However, the war has depleted the financial resources of these cooperatives, which are derived from membership fees and commercial exploits. Cooperatives tend to find themselves in a Catch-22 situation, with many refusing to pay their membership fees and cooperatives reducing their support due to budgetary constraints. Consequently, most cooperatives are either breaking even or suffering losses. They also suffer from inadequate administrative structures, lack of good governance and clear mission statements, and limited numbers of dedicated and qualified staff.

COMPLIANCE AND ENFORCEMENT MECHANISMS

Effective enforcement of Fishing Law 2/2006 has long been lacking. At the same time, the law and its implementing regulations still constitute the main legislative framework for the fisheries sector and seafood export services fees. Compliance with the fishing law and its executive regulations (issued in

[18] ibid

2006) were at their highest during the first six years after the law's passage when fishermen were normally paying 8% of the value of their catch.[19]

In 2012, fishermen stopped paying the 3% owed to the state, though they continue to pay a portion of the remaining 5% of the catch value to the landing site owner, auctioneer, and cooperatives. This seemed to demonstrate a clear willingness to pay for tangible services. At the same time, the sector is plagued by rampant corruption along the value chain, and enforcement extremely limited

Although the Yemeni Cost Guard patrols by coastal waters are trying to prevent illegal fishing by foreign trawlers, their resources are diminishing, and their surveillance efforts are not very effective. The MOF has no data on the number of domestic and foreign companies operating in the coastal economic zone of Yemen. There is no regime for access fees for foreign trawlers that may be operating in Yemen's exclusive economic zone.

INTERNATIONAL GOOD PRACTICES IN FISHERIES REVENUE

The UN's Food and Agriculture Organization (FAO) estimates that around 60 million people are employed worldwide in fishing and fish farming. The majority of those employed by the capture fisheries sub-sector work in small-scale operations across the developing world. In 2016, fisheries and aquaculture produced roughly 171 million tons of fish, with a "first sale" value estimated at US$362 billion, generating over US$152 billion in exports, with 54 percent originating in developing countries.

Fish is a natural resource that belongs to countries in general and coastal communities in particular. The fisheries sector is notoriously vulnerable to overfishing, and the "tragedy of the commons" looms large, where there is almost open access to a resource unhampered by shared social structures. Formal rules that govern access and user rights can prove difficult to enforce, even in developed countries.

Fishing revenues have provided welcome breathing space for countries encountering major fiscal difficulties. In the case of Yemen, this urgently needs to be converted into a more sustainable budget scenario moving forward. The first step taken in many countries has been to recognize that these are not temporary windfall revenues but an ongoing feature of the country's own-source income, which may demonstrate volatility. Most countries charge a resource rent for these extraction activities to maximize the benefits that the community can derive from them. At the same time, countries devise rules and safeguards to prevent overfishing. Enforcement of these rules is challenging even in advanced economies.

Public revenue from fishing rights takes several forms. Countries in the South Pacific, for instance, have made considerable progress towards maximizing their share of income from fisheries, mainly through fees for access rights and licenses levied on foreign fishing vessels equal to six percent of the catch value. Since the catch value by vessels that do not touch local ports is difficult, these countries levy a benchmark charge of US$ 8,000 per day per vessel. Foreign fishing access annually generates approximately US$350-400 million for the 22 Pacific Island countries and territories.

In Alaska, a Fisheries Business Tax is levied on people who process or export Alaskan fisheries resources. The tax is collected primarily from licensed processors and exporters and is based on the price they pay to commercial fishermen. Several other taxes levied in Alaska include: (i) the Fishery Resource Landing Tax, which is levied on fishery resources processed outside the 3-mile limit and first

[19] ibid

landed in Alaska; and (ii) the Salmon Enhancement Tax, which is levied on salmon sold in an established aquaculture region and is based on the price paid for the salmon.

In addition to revenues from the sale of fishing rights in Norway, the government proposes to introduce a production tax on farmed fish in 2021. The suggested tax rate is NOK 0.40 per kilogram of fish. This would provide approximately NOK 500 million to local and regional governments beginning in 2022.

Many countries around the world use export taxes on commodities for a variety of reasons. Two countries in the South Pacific region, Solomon Islands and Tonga have export duties on fishery products – which apparently were imposed to prevent unfair transfer pricing by vertically integrated fishing/marketing companies. As discussed earlier, Yemen levies export fees on fish export at specific rates depending on whether the fish is frozen, fresh, or processed.

Export taxes are used to stabilize prices, influence resource allocation, alter income distribution outcomes, and increase fiscal revenue. When a country possesses a degree of monopolistic power in the international market for a particular commodity, an export tax levied on the good in question can improve the country's terms-of-trade, that is, the relative price of a country's exports.[20] **All types of export taxes reduce the volume of exports** and are, therefore, a form of export restriction and implicitly a subsidy for using the natural resources in domestic value addition activities.

CONCLUSION AND POLICY RECOMMENDATIONS

Yemen has established a structured regime for resource rent management in the fisheries industry. As discussed in an earlier section, the Fishing Law of 2006 imposes a resource levy of 3% of the value of fish at landing sites. This is in addition to the composite service charge of 5% of the sales value, representing the membership fee to the cooperative, the service fee to the auctioneer, and rent to the landing site owner. In addition, there is a 20% to 25% tax on the production of large fishing vessels, an export fee at varying specific rates, and an annual export license fee of YER 100,000-200,000.

However, due to poor regulation and enforcement, inadequate management, a high rate of corruption, and insecurity due to ongoing conflict, the resource levy and the production tax on fishing vessels have not been enforced for the better part of the past decade. In addition, inaccurate data and limited knowledge of fish stocks render any objective assessment of the potential fiscal resource envelope challenging, even if effective enforcement were possible. The high levels of poverty in fishing communities make compliance even more challenging. Consequently, the government's fallback position has been to attempt to administer an export tax and license fee system.

There are two main issues here: the design of the legal regime and its adequate enforcement. Enforcement is, of course, in part linked to the ongoing conflict. Nonetheless, intensified 'smart' efforts should be made to improve legislative compliance.

One option we would recommend would be to require that resource rents be withheld by auctioneers rather than being collected directly from fishermen. Auctioneers have tangible market power at the local level and are locationally stable. They could be required to function as the withholding agent for the state. Withholding of taxes represents a time-tested method for improving compliance internationally.

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[20] Piermartini, Roberta. *The Role of Export Taxes in the Field of Primary Commodities*. World Trade Organization Geneva, Switzerland. 2004.

The lack of enforcement of the tax on the production of large fishing vessels since 2015 could be solved through an effectively targeted administrative enforcement strategy. It should be noted in this regard that there are just a few manufacturers of fishing vessels. Discussions should be held with them and an agreement reached to facilitate greater compliance, perhaps including a rate reduction for compliant manufacturers. Of course, diligent enforcement efforts will need to be undertaken with non-compliant manufacturers as well. Likewise, a targeted effort should be launched to improve enforcement of the normal GST regime for the value-added fish processing industry.

There is currently no regime for fishing access and fishing rights fees for foreign vessels conducting fishing activities in Yemen's exclusive economic zone on the design side. As has been previously discussed, these have been a major source of revenue for most Pacific island nations, earning them hundreds of millions of U.S. dollars in revenue. We recommend that the MFW establishes a mechanism for charging fishing access fees and fishing right fees for foreign vessels conducting fishing activities in Yemeni waters. These fees should be based on the expected catch per day, with a minimum per day fee per vessel, to safeguard revenue and prevent understatement by the fishing companies.

Currently, in the absence of any other stable source of revenue, the export taxes and export license fees are the only sources of government revenue from this sector. Export taxes should, at best, be treated as temporary sources of revenue and should be phased out as other recommended measures become revenue yielding. Export taxes have sometimes been suggested as a trade policy instrument to tackle the natural resource rent extraction issue or as a substitute for weak administration. It has been argued that export taxes can be used to improve the terms-of-trade and, in turn, smooth export earnings volatility. Export taxes have at times proven effective in this regard if the country is large and has a monopolistic advantage in the commodity that is exported. That is, it is a price-setter. This is not the case with fish exports in Yemen. On the contrary, an export tax lowers the export competitiveness of Yemen in the fishing market and reduces its export receipts. We recommend applying export taxes as a short-term policy measure only, with the specification of an explicit timetable for their phase-out.

Recommendations Summary

1. Resource rents should be withheld by local auctioneers, rather than being collected directly from fishermen.
2. Discussions should be held with fishing vessel manufacturers and an agreement reached to facilitate improved taxation compliance, perhaps including a rate reduction for compliant manufacturers.
3. Establishment of a mechanism for charging fishing access fees and fishing right fees for foreign vessels conducting fishing activities in the Yemeni waters.
4. Application of export taxes as a short-term policy measure, and specification of an explicit timetable for their phase-out.

ECONOMIC RECOVERY AND LIVELIHOODS PROGRAM (ERLP) IN YEMEN

ANNEX 20

REPORT ON THE EVALUATION OF THE CURRENT SALES TAX SYSTEM AND A ROADMAP TO ESTABLISH A COMPREHENSIVE VAT SYSTEM

March 2021

Prepared for the United States Agency for International Development, USAID Order # 72027920M00001

USAID/Yemen - Economic Recovery & Livelihoods Program (ERLP)

The Pragma Corporation, 116 East Broad Street, Falls Church, VA 22046

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Abbreviation and Acronyms

CBY	Central Bank of Yemen
ERLP	Economic Recovery and Livelihoods Project in Yemen
EU	European Union
GCC	Gulf Coordination Council
GDP	Gross Domestic Product
GST	General Sales Tax
IMF	International Monetary Fund
MOF	Ministry of Finance
OECD	Organization for Economic Cooperation and Development
PIT	Personal Income Tax
SAR	Saudi Arabian Rial
SME	Small and Medium-sized Enterprises
TADAT	Tax Administration Diagnostic Assessment Tool
USAID	United States Agency for International Development
USD	United States Dollar
VAT	Value Added Tax
WB	World Bank
YER	Yemeni Rial

INTRODUCTION

At the request of the Ministry of Finance, the ERLP Fiscal Team evaluated the current Sales Tax System in Yemen during February - March 2021. This evaluation was discussed jointly with the Yemeni authorities and the Tax authority. The evaluation covers the existing legislative and policy framework, in addition to administrative regulations and procedures.

This evaluation culminates several rounds of consultations conducted remotely with senior staff from the Ministry of Finance (MOF) and the Tax Authority, including Mr. Taha Said, Head of the Revenue Department at MOF, and Mr. Awad Ahmed, Head of the Tax Authority. The meetings aimed to: (a) better understand the current sales tax system in terms of legislation and actual implementation; (b) gather available data on inputs-tax deductions and compliance rates; (c) assess the existing challenges facing the tax authorities in Yemen, and (d) identify the core reform priorities targeted by MOF and the Tax authority in the immediate to medium term.

This evaluation followed a comprehensive approach considering both the legislative and administrative frameworks as two essential pillars in the reform process. for the sales tax system. Thinking of tax policy as an independent process from the administration framework would limit the pathway of the reform plans.

This review was complemented, in parallel, by a diagnostic assessment of the tax administrative framework using the TADAT (Tax Administration Diagnostic Assessment Tool) approach. The examination of the tax administrative framework was conducted by ERLP tax administrative experts over the same period of time.

The main objective of this report is to review and evaluate the current General Sales Tax system in Yemen and to develop a short-medium term game-plan for the transition towards a full-fledged VAT system.

CONTEXT

Yemen, a low-income, in-conflict country in the midst of an ongoing economic and humanitarian crisis, now faces the challenge of dealing with the global COVID-19 pandemic. Real GDP contracted by 5.0 percent in 2020, according to IMF estimates, and is expected to grow by 0.5 percent in 2021.[1] Despite the very difficult conflict situation and economic contraction, maintaining some semblance of fiscal sustainability and stability are critical for the Government of Yemen.

The budget deficit stood at 5.7% in 2020.[2] Yemen's non-oil tax revenue (including Customs) accounts for 2.3 percent of GDP (YER 418 billion), compared to an average of around 17 percent of GDP for middle-income developing countries. Based on ERLP's estimates, total tax revenues (excluding customs) are expected to reach YER 280 in 2021 (Table 1).

[1] IMF (2020). *World Economic Outlook, October 2020*
[2] IMF (2020). *World Economic Outlook, April 2020*

Table 1: Summary Table of Non-oil revenues in YER billion

	2019 Actual	2020 Estimates	2021 Forecast
Total non-oil revenues, of which	443.4	600	758
Total domestic taxes	221	230	280
Central government account taxes	221	224.8	273.7
Income taxes	97	97	118
General sales tax	124	127.6	155.4
Other taxes	0	0.4	0.5
Local account tax receipts		0.6	0.7
Common account tax receipts		4.8	5.8
Customs	97	115.3	137.7
Dividends, sale of crude oil and gas, grants	48	248	333
Grants	48	94	148
Other revenues	78	6.2	7.5
Memo: GDP current prices)	***12,614*** *(World Bank data)*	***14,812*** *(ERLP estimate)*	***17,864*** *(ERLP estimate)*

Source: ERLP team estimates

As a minor oil-exporting country, the most important sector of the economy is dwindling oil extraction, which used to account for around 70 percent of government revenue in the pre-conflict era, but the decreasing demand for oil due to the pandemic related economic slowdown reduced this source of revenue in 2020. According to ERLP estimates, oil revenues are estimated to reach YER 887.5 billion in 2021 (with a projected average oil price of USD 60.2 and projected exchange rate of YER 840/USD), compared to YER 330 billion only in 2020. It is expected that oil prices would remain highly volatile in the coming few years. While latest projections indicate that oil prices will hover around USD 50-60/barrel during 2021-22, global demand for oil is expected to decline in the medium to long term, with greater emphasis being placed on clean energy.

Tax compliance in Yemen is very low by regional and international standards (see Table 2). The Filing compliance rate recorded 42.2 percent for the first six months of 2020, with the service sector registering the lowest level at a compliance rate of 15.7 percent. Even more disturbing is the low level of business participation in terms of taxpayer registration in the three governorates under government control: Aden, Hadhramaut, and Taiz. There are only 51 registered taxpayers in the services sector and 167 in trade, approximately half of these from Aden. In effect, accountants, lawyers, architects, and other lucrative professions practically escape the GST.

Table 2: Number of taxpayers, VAT returns, filing compliance rate (January - June 2020)

Governorate/Sector	Total			
	Registered Taxpayers	Expected Tax Returns for Six Months	Actual Tax Returns	Compliance Rate %
Manufacturing	85	510	299	58.2
Trade	167	1002	421	42.0
Service	51	306	48	15.7
Total	303	1818	768	42.2

Source: Tax Authority Yemen

Table 3 shows the estimates of buoyancy & elasticity for the period 2017 – 2020 computed by the ERLP team with data provided by MOF. The results show that elasticity rates are generally low compared to the average of peer countries. This indicates that the tax base is very narrow, and the revenue system is not able to tax the growing sectors of the economy. This is evident from the very low number of registered taxpayers in the governorates under government control. This also means that despite ongoing efforts taken by the Yemeni government to streamline the tax administration system, more targeted policy reforms are required to expand the tax base and improve the elasticity of the tax system more generally.

Table 3: Estimates of buoyancy & elasticity for the period 2017 – 2020

	Buoyancy	Elasticity
Income Tax	1.90	4.34
Sales Tax	4.86	-11.16
Other Taxes	4.52	-0.09
Customs	5.46	-7.47
Dividends and sale of crude oil and gas	-0.67	-9.06

Fiscal policy and revenue administration reform is a critically important prerequisite of post-conflict recovery. It brings with it a host of distributional, efficiency, and political economy dimensions that the Yemeni government and society are grappling with. International experience in many transitional contexts suggests that effective fiscal management can have a significant impact on peace and post-conflict reconstruction. Distortions created by the fragmentation of institutional capacity in the Central Bank of Yemen (CBY) and other government agencies, including the Ministry of Finance and the Tax Authority, have further compounded the crisis.

However, tax collection and revenue administration improved over the course of the year 2020, making it possible to resume paying civil servant wages and pensions and thus increasing household purchasing power.[3] This improvement has included a series of administrative reforms in the customs area, which have been implemented by the Yemeni government over the past few years with significant ERLP technical/training support. For instance, the Customs Authority has, with ELRP technical/training support, implemented a number of key administrative changes designed to streamline customs clearance procedures, increase manpower capacity at ports, and finetune its risk management policies and inspection practices.

Moreover, the Prime Minister issued a decree subjecting imports of petroleum products to a VAT of 5% at all ports and imports by large taxpayers to 5% VAT tax to be paid at the border. These new regulations have, in turn, helped increasing actual revenue collection from sales tax.

REVIEW OF THE GENERAL SALES TAX SYSTEM

CURRENT STATUS

Yemen operates a General Sales Tax (GST) system under the Law of General Sales Tax - Law 19 of 2001. The general rate is 5 percent of the sales value, although the rate of 5 percent is applied as a percent of the consumer sale price for petrol, solar, kerosene, mazut, and butane gas. There is a zero

[3] IMF (2020) *world Economic Outlook, April 2020.*

rate for exported commodities and services, international air, land and maritime navigation, and babies' milk. The following services are exempt from the GST:

1. Financial and banking services
2. Insurance services
3. Health and treatment services
4. Educational services of all types
5. All non-profitable services carried out by non-governmental agencies (NGOs), societies, and organizations recognized by competent authorities
6. Internal land transport services including goods transport services (except speedy carrier services), passengers transport services
7. Highway maintenance services
8. Services of renting, operation, or exploitation of lands and real estates for the
9. purposes of private housing
10. Water services (except mineral and bottled health water), sewerage and
11. electricity
12. Services of houses and streets cleaning and services of combating pollution
13. related to the environment, including the collection of wastes and garbage
14. Services of restoration and repair of historical monuments
15. Pilgrim services (pilgrimage and Umrah agencies)
16. One star hotels and below services

It is worth mentioning that massive tax expenditures are implied here based on benchmarking sales tax systems in the MENA region and most GCC countries. The general tax rate of 5 percent is very low compared to a standard rate in peer countries, which varies from 10 percent to 15 percent. In addition, some items in the exemption list represent tax expenditures when comparing it to the benchmark exemptions in peer countries. The first four (banking, financial and insurance services, education, and health) are typically exempt in a standard VAT regime, as for instance, in the European Union (EU). However, the other exemptions are not standard and will be considered as representing policy gaps, leading to significant tax expenditure and possible loss of revenue. The same is the case with the reduced rate of 3% for gold jewelry.

Tax expenditures lead to major revenue leakages and embedded distortions in the system. Fiscal reform recommendations represent a priority for Yemen authorities in the short term.

There are additional rates in Table 3 of the GST Law for goods such as tobacco products, arms and ammunitions, gold jewelry, telecommunications, and global system for mobile communication services. These are effectively excise taxes and should not be incorporated in the GST law.

Companies whose annual turnover exceeds YER 50 million (equiv. approx. USD 200,000 based on the official exchange rate) are required to register for GST purposes. Registration is voluntary when the turnover is below this amount. Article 6e of the Law allows firms to register voluntarily, even when their turnover is below the registration threshold. The authorities explained that some firms register voluntarily; in order to compete for government procurements and contracts. However, given that the overall number of registered taxpayers is so low (only 303), it is unlikely that there are many cases of voluntary registration.

Sales tax on imported goods is collected at the borders by the customs authority. Before 2020, receipts collected at borders were directly transferred to Aden and recorded on a monthly basis. In 2020 however, given the security instability in several governorates in Yemen, this direct transfer of receipts was interrupted and did not take place on a monthly basis. The receipts at the borders are now collected and recorded via an intermediate bank account that was established by the government in January 2020. This can be seen in Table 1 above. At the end of the year, the amount of receipts in this account are transferred to the central government account at the CBY and added to the total amount of sales tax on imported goods.

EVALUATION OF THE GST SYSTEM

The ERLP fiscal team developed a comprehensive questionnaire to assess the efficiency of the current GST system that was shared with the Ministry of Finance and the Tax Authority technical teams. (see Annex 1). This questionnaire contained four main categories of questions:

a. Legislative questions, focusing on legal definitions and the detailed description of the key provisions, including refunds, penalties, and registration threshold.
b. Tax policy questions related to the tax rate, tax base, exemptions, input-tax deduction, and consumption tax.
c. Administration questions assessing the on-ground implementation of the current law and highlighting the challenges to move to a VAT comprehensive regime.
d. Data collection focusing on tax receipts, compliance rates, and input-tax deduction.

Following the questionnaire, ERLP fiscal team conducted meetings with the authorities to discuss their answers and better understand the current situation. The authorities were forthright in explaining the current status in Yemen and describing the de facto implementation of the law.

In the following sections, the provisions relating to the legislative, policy, and administrative framework are discussed in detail.

Legislative Framework

Based on the discussions with the authorities, the team identified gaps in legislation and provided a broad range of recommendations on the following provisions of the law:

- Definition of a Taxable Person, in particular with respect to importers and exporters
- Sales tax threshold and interaction with the Small Business Regime
- Import of services
- Export of services
- VAT refunds and carry-forward rules
- Design and level of penalties fees
- The design of the excise section of the law

With respect to the above provisions, the ERLP fiscal team highlighted the key findings and non-conformities between the legal definitions in Yemen and best practice provisions in other countries. These provide a checklist of issues requiring further attention over the near-to-medium term. Below are the aspects for which ERLP experts provided targeted recommendations.

Liable Person and Taxpayer

In the current law, there is no differentiation between the taxpayer and a liable person. For the liable person, the law should spell out clearly and unequivocally for each taxable event which is the person liable for payment of the tax. Normally, the liable person includes both the taxpayer and the importer of goods and services. Currently, the two definitions are stated separately. On the other hand, the definition of taxpayer widely follows the common definition in sales tax laws in most countries. It still lacks the needed specificity that would be required for purposes of efficient VAT law. It is recommended that the law explicitly states that the definition of a liable person would include all payers in the production chain: manufacturer, supplier, trader, exporter, and importer.

Exporter

There is no definition of the terms' export' or 'exporter' in Article 2 of the current GST law (dealing with definitions), even though Table 2 - an annex to the Law specifying commodities and services subject to zero-rate - uses the term 'exported commodities and services.' Likewise, Article 16 of the GST Law relating to the filing of returns mentions that exporters have the right to submit returns and refund claims. It is not clear from the definition of the term 'taxpayer' whether the exporter is taxable or not. However, discussions with the Tax Authority helped clarify that exporters are subject to sales tax. It is recommended that Article 2 of the Law includes a precise definition for the terms exporter and exports.

Export of Services and Import of Services

The notion of "export of services" must be defined in the law. The purpose should be to tax domestic consumption only, in accordance with the destination principles (residents and non-residents). Likewise, the notion of imported services should be clearly defined by the law in order to be able to identify links to the supply of services that are not made in Yemen; but are made for liable non-Yemeni economic agents residing in Yemen.

Excise Tax

In the current law, excise rates are placed in Table 3 under the title: 'Commodities and services subject to tax in percentages against each.' It is presented as simply an exception to the general sales tax rate with no other major differences in the treatment. These are, in effect, excise taxes and should not be included in the GST Law; but should be placed in a separate, self-contained law on excise taxes. The main reason is that excise taxation implies a different set of administrative procedures and rules, including base determination, border adjustment, and bonded warehousing. Release and clearance of goods and enforcement issues.

The excise law should specify explicitly - without cross-referencing to sales tax provisions - what is subject to excise tax, who is liable to pay the tax, when the tax is payable, and how it should be paid, as well as warehousing, clearance, and enforcement procedures.

Penalties of Tax Evasion Crimes

Although the provisions relating to penalties for delays in filing and payment (Article 33) are clear while specifying that these penalties are levied by the Tax Authority, the provisions of Chapter 11 (articles 43 to 53) relating to penalties on tax crimes and tax evasion are not clear about whether these penalties are administrative penalties, or would require court intervention. The jurisdiction of judicial courts is mentioned sporadically across these provisions.

The tax authority should have the power to impose administrative penalties for tax evasion prior to court intervention, especially when the crime is not severe and imprisonment is not warranted. Most tax administrations have the in-house capability to deal with tax frauds and evasion, leaving criminal prosecution for the most severe cases, especially where the tax fraud is combined with money laundering, smuggling, or trafficking in drugs, weapons, or persons.

Policy Issues

<u>Divergence from a full-fledged VAT System</u>

The GST Law in Yemen has a hybrid structure with mixed features of a sales tax and a VAT system. Several divergences from a standard VAT are normally used in most countries with a full-fledged VAT system. The law itself is called the Law on General Sales Tax, even though it embodies some principles of a standard VAT. In this regard, it is significant to mention that the MOF consistently uses the term 'Sales Tax' when referring to the tax system in Yemen in general.

First, the concept that tax is imposed at every stage of the production chain from raw material to the sale to final consumers, and that each person along the chain is responsible for paying the same rate of tax - with the previous taxes paid on inputs being deductible at each stage - is not explicitly articulated in Yemen's GST Law.

Second, in a standard VAT, the imposition is on 'taxable supply,' while in the GST Law, the tax is levied on commodities and services. By way of comparison, the VAT law in Lebanon and the Unified VAT Agreement of The Cooperation Council for the Arab States of the Gulf have well-articulated provisions for 'taxable supply,' 'deemed supply,' 'reverse charge,' 'fixed establishment' 'place of supply,' and 'input tax.'

Third, under a standard VAT regime, the tax becomes due on the <u>date of the supply</u> of goods or services, the <u>date of issuance of the tax invoice,</u> or <u>upon partial or full receipt</u> of the c<u>onsideration</u>, whichever comes first, and to the extent of the received amount. However, under Article 5 of the GST Law in Yemen, the tax becomes payable on the realization of the sale of a taxable commodity.

<u>Fourth</u>, although Article 14 of the GST Law allows input tax to be deducted from sales tax, similar to the input credit allowed under a standard VAT, there are several exceptions that make the GST different from a standard VAT. The following are some examples:

1. In practice, input tax is not paid to exporters unless they show that hard currency from export is deposited in a Yemeni bank account.

2. Under Article 34, VAT is not collected at the customs point for the import of raw materials ('inputs of production') and capital commodities (equipment and machinery). It is considered to be a deferment of the tax until the goods are sold.

3. An additional 5 percent tax is charged for imports that are going outside the government-controlled territories.

These exceptions have serious implications on the operability of a standard VAT and present a significant challenge for law enforcement. Most notably, if tax is not collected on raw materials or investment goods at the time of import, there's no cross-reporting of the transaction. Under such circumstances, the Tax Authority has very few means to verify, except at a great administrative cost, whether the goods were actually used as raw material or investment goods or just sold in the market. In a value-added tax system, the chain of crediting creates a natural audit trail, a self-policing mechanism where the seller has more incentive to report the transaction and pay tax.

As a result, compliance rates become low, as is the case in Yemen. Most countries have found that, without an audit trail, buyers have a greater incentive to avoid the tax, and sellers have a greater incentive to keep the revenues. In the VAT, the chain of crediting creates a natural audit trail. In a transaction between two businesses, the seller knows the buyer is reporting the transaction to claim a credit, so the seller has more incentive to report the transaction and pay tax. There's no similar incentive if tax is not paid on raw material or capital goods.

The Registration Threshold

Currently, the registration threshold is determined at YER 50 million. The authorities have conveyed their belief that this figure should be revised upwards, given the fact that it does not effectively reflect the economic situation in Yemen, including the severe inflationary circumstances the country has been facing over much of the past decade. The authorities suggested increasing it to around 200 million YER.

While the YER 50 million threshold corresponds to USD 200,000 at the official exchange rate designated for customs, it corresponds to USD 62,500 at the market exchange rate of around YER 800 to USD. A threshold of YER 200 million at the market exchange rate will correspond to USD 250 thousand. By way of comparison, the threshold in the GCC countries is 365,000 SAR, which is equivalent to about USD 100 thousand. In Lebanon, it is equivalent to USD 100 thousand as well.

Despite the fact that the Yemeni rial has depreciated significantly over the last ten years, and a threshold equivalent to USD 62,500 is relatively low for a developing country, it is also true that the tax base in Yemen is dismally narrow (considering the low number of registered taxpayers).

Thus, the current threshold should be increased to a level higher than the current level, equivalent to USD 62,500. This higher threshold would certainly be justified once the GST transitions to a comprehensive VAT. It is recommended to increase the threshold to around USD 100,000, based on the most common threshold levels in GCC countries as cited above. This will be discussed more in detail in the following sections.

Exchange Rate

The price of imported goods is calculated using the official exchange rate for customs at 250 YER/dollar, which is far below the market rate of around 800 YER/dollar. The authorities agreed that having two different exchange rates is a major impediment, which has led to an artificial decrease in tax receipts.

This is a major ongoing concern. When the official exchange rate is so different from the market exchange rate, and taxes are computationally based on the official exchange rate, revenues are bound to suffer significantly. There are two possible solutions to address this mismatch: (i) the official exchange rate regime should be linked to a realistic market exchange rate, or (ii) the GST on imports should be assessed using the market rate rather than the official rate. Both will require an amendment of existing regulations and must be jointly approved by the Minister of Finance and the Governor of the Central Bank of Yemen.

Tax Rate

ERLP has discussed the possibilities of increasing the existing rate of 5 percent with MOF and the Tax Administration Authority; reflecting the fact that this rate is far lower than average compared to other MENA countries (e.g., Egypt applies a standard tax rate of 14 percent, Lebanon applies a standard tax rate of 10 percent). However, authorities underscored the near-term political economy issues likely to be faced in introducing such a change in the very near term.

In fact, the optimal time to adjust the tax rate upward - to the 10% range - is when Yemen moves to a full-fledged VAT, which will allow better management of the audit trail. If the tax rate is raised abruptly in the absence of an operational standard VAT system, the increase will likely only increase evasion.

Excise Rate

Under the current GST law, excise rates are included in a schedule (Table 3 of the GST law) as part of the tax rates specified for certain commodities (cigarettes, weapons, gold jewelry, and mobile phones). In a standard VAT system, excise rates are added on top of the VAT general rate, which is not the case in Yemen. Thus, it is recommended that all commodities specified in Table 3 of the GST law should first be subjected to the VAT general rate. Additional excises over and above the general rates should be drafted in a new separate Excise Law and not be part of the VAT law. In this regard, additional excise rates should be defined based on the nature of each item in the schedule.

The authorities have also expressed the view that excise rates on luxury goods, such as tobacco, cigar, and gold accessories should be increased as a means to increase tax receipts. As discussed in the previous section, excise taxes have different enforcement and control mechanisms and should not be placed within the GST Law. It is recommended to draft a new Excise Law to rationalize excise rates. This draft could be finalized in parallel to the VAT draft law within the same suggested timeframe of 18 months.

Tax Base and Exemptions

The authorities expressed their interest in revising the existing list of exemptions and sought recommendations on whether some of the commodities and services on that list should be taxed. The list contains three types of exemption from GST: (a) product-based exemptions such as food products, and basic services such as health and education services, (b) buyer-based exemptions focusing on the nature of the buyer, such as non-profit organizations, embassies, and international institutions, and (c) Use-based exemptions for products that are going to be sold to another final consumer.

After reviewing the exemption schedule included in Yemen's GST law, ERLP experts suggest removing the exemptions for internal land transport services and hotel services. Many countries tax privately operated companies and exempt public ones. This is not a good tax policy. There is no good justification for exempting public land transport since the tax is ultimately paid by the passenger, whether he/she uses public or private transport. In addition, the exemption on one-star hotel services should clearly be removed.

Other exemptions, such as for financial services and real estate, are addressed more explicitly in the following sections.

Administrative Policies

Low Compliance Rate

Currently, there are only three executive offices in Yemen, in three governorates functioning under the official government based in Aden. These three offices are responsible for collecting tax receipts from three main sectors: manufacturing, trade, and services. The total compliance rate, calculated based on the taxes collected in the period from January to June 2020, was very low, at around 42 percent (see Table 2 on page 4). The 303 registered taxpayers presented around 768 tax returns over the period of six months, rather than the 1818 tax returns that should have been presented.

The data also showed that the filing compliance rate is higher in the manufacturing sector, at around 60 percent. The compliance rate registered 42 percent in the trade sector and 15% percent only in the services sector.

Despite the fact that services are subject to the current GST Law, implementation on the ground raises many challenges for tax administration. The data indicate that there are only a total of 51 registered taxpayers in the services sector and that these entities collectively presented 48 tax returns over the six-month period from January to June 2020 -- rather than 306 returns that should have been presented over that timeframe. Such an abysmally low compliance rate, of course, has serious implications for revenue buoyancy.

Taxing Telecommunication Services

Tax collection for telecommunication services presents a serious concern. Given the situation in Yemen, all telecommunication service providers are currently headquartered in Sana, under the control of the opposition government. As a result, the government in Aden is not able to collect sales tax on their services. This represents a huge loss of revenue to the budget. This comes despite the fact that these service providers are operating normally in government-held governorates and are using its infrastructure.

The Tax Authority needs to deal with this problem in the short run to limit revenue leakages. Even if the service providers' headquarters are located in Sana'a, they are actually collecting service user charges and fees from mobile phone and internet users in Government-held areas. They also use the infrastructure within the Government-held areas to provide their services. As such, they should be legally responsible for paying GST for the fees received for services rendered in the Government-held areas. Since taxing them through their headquarters in Sana'a would be challenging, as an interim solution, it is recommended that the Tax Authority charges GST for the final users at the time of payment of bills, especially through the providers' agents in the government-held areas.

Imports of Petroleum Products

As discussed earlier, the tax treatment of imported petroleum products is a major concern. Since the Customs authority is collecting taxes on imports of petroleum products based on the official exchange rate, which represents one-third of the actual market rate, the government collects only one-third of the expected revenues. It is advisable that the authorities start collecting GST on the basis of the market exchange rate to address this basic policy misalignment.

Additionally, while almost all processed/refined petroleum products are imported from other countries, not all importers file their tax returns unless they are regular importers. Casual importers and businesses operating in rebel-controlled areas are not required to register with the Tax Authority in Aden. Thus, the Tax Authority cannot collect GST receipts from these businesses at the retail sale point.

To compensate for the revenue leakage, the government imposes an additional 5 percent fee to be paid at the customs' borders and the 5 percent general rate required under the GST law. This is and a temporarily non-legal solution that the Tax Authority applies as a form of withholding tax in order to deal with the tax evasion that has occurred since 2017.

<u>Other Administrative Challenges</u>

As highlighted earlier, ERLP fiscal experts have identified several other administrative reform priorities that the Tax Authority will need to address to lay the groundwork for successfully implementing a VAT law. These include the following:

Addressing the shortage of staff and consolidating training and capacity building activities

A total of 35 employees in the three existing tax executive offices in Yemen are covering all operations relating to the collection of income and sale taxes combined. Moreover, there is no specialized staff in sales tax. The authorities confirmed that the three tax offices are understaffed, and the existing number of employees does not match the level of workload addressed by these offices. The staff size must be increased significantly to reach a minimum of 50 employees in the three executive offices to meet the average workload.

The staff had received minimal formalized training since its relocation to Aden in 2014. Providing a thorough capacity-building program is crucial to strengthening the desired reform efforts, especially in specialized VAT audits and enforcement of tax collection. ERLP fiscal specialists have provided several remote workshops over the course of last year, covering revenue forecasting techniques and high-level tax administration reform themes. Comprehensive formal and OJT training across all core tax administration functional areas will be required moving ahead.

Information Technology

Information technology is a key priority for the authorities in the tax administration reform area. Currently, the tax administration system is not computerized. There is no MIS network connecting the head office in Aden and the tax offices in remote governorates. VAT invoices are not generated electronically, and income tax returns are filed manually as well. Manual accounting procedures lead to a lack of accuracy and the lack of efficiency, and poor time management.

Upgrade of core IT infrastructure is an important element of the reform of the tax administration system in Yemen. ERLP has drafted an initial game plan to assist the authority in building the required IT infrastructure, consistent with streamlined business processes accordingly. Moving forward, ELRP experts can assist the Tax Authority in developing the IT and related business process specifications required for tax-related MIS software/hardware procurement purposes.

Return filing

The tax return form that is currently being used by taxpayers in Yemen was developed in 2006 and has not been amended since. For instance, the VAT form does not contain details of input tax paid by the taxpayer. The tax declarations are not available electronically, and taxpayers fill in paper forms manually every month. It is important to review the tax declaration forms and include all information – including tax paid on inputs. This should also indicate the breakdown according to the type of input (whether direct, indirect, or capital input).

This, in turn, will fulfill two major objectives: i.) To be able to calculate the fiscal impact of implementing a full-fledged VAT when applying the full tax deduction on all taxes paid on inputs, and ii.) to collect useful information about the production chains of different sectors, in order to reflect this in the draft VAT law. It is also important to provide access to the tax return forms online on the Ministry of Finance or Tax Authority's website so that taxpayers could fill it electronically.

Payment

In Yemen, there is no facility for electronic payment of tax. Taxpayers pay in cash or by check at the tax offices in each governorate. Tax offices transfer the cash to the government account at the CBY in Aden. Therefore, the Tax Authority faces serious challenges to reconcile the taxpayer accounts. Given the existing security problems in the country, the transfer of money from different governorates takes time and is not very safe. This creates a lag between the actual tax payment at the tax offices and the collected cash receipts at the CBY.

CONCLUSION AND POLICY RECOMMENDATIONS

The tax system in Yemen is facing a number of critical challenges. These include the poor compliance rate, grossly inadequate procedural frameworks in critical areas such as registration, audit, returns processing, and collections, lack of IT infrastructure, exchange rate mismanagement, and limited human resource capacity. This has compromised revenue in-flows from taxes over a prolonged timeframe. Thus, it is important to address priority policy concerns through the following set of policy recommendations, which have been discussed in the previous sections of the report:

a. Align the official exchange rate for customs to match the actual market rate;
b. Remove the existing tax exemptions on internal land transport and hotels;
c. Collect GST on mobile phone bills or phone purchases from the final users or agents of the providers;
d. Develop electronic GST return forms and make them available on MOF or Tax Authority website to facilitate e-filing.

In the medium term, the authorities in Yemen should move forward and transition in a time-effective manner to a full-fledged VAT regime. This will provide a structured audit trail system and minimize the very low compliance rate. A detailed game plan for the transition towards a full-fledged VAT system is discussed hereafter.

ROADMAP FOR THE TRANSITION TOWARDS A FULL-FLEDGED VAT REGIME

ERLP is proposing a two-year time-framed game plan for the transition towards a full-fledged VAT system. This plan draws upon key features of VAT systems applied in more than 160 countries worldwide, including some countries from the GCC and the MENA region. Each tax system can have its own national peculiarities, and each country applies different VAT rates.

It is equally important to recognize that while VAT will generate higher revenues for the government, it will also raise the compliance cost for businesses, at least in the near term. Therefore, implementing a VAT structure should be accompanied by corollary "smart" procedural reforms that help to streamline filing and payment processes, including the gradual shift towards effective information technology solutions.

The key first step towards implementing a VAT system is the detailed review of the existing legal framework and ensuring the provision of clear guidance on how inputs can be deducted and how fraudulent claims of input can be detected.

It is worth noting that the principal rule in a comprehensive VAT regime is to virtually subject all goods and services to the tax system and provide a concise exemptions' list covering basic commodities and services which may serve a social purpose (e.g., public education services, public health services, basic food, etc.).

Registration

All new applicants must be verified for authenticity to prevent the creation of non-existent companies that can be used as the basis for fraudulent credit claims. Those detected using fraudulent practices should be deregistered.

Casual importers who are not otherwise required to register in the VAT system because they do not meet the registration threshold should remain excluded, as is the current procedure. Registering casual importers will end up clogging the registration system and overload the administration. Instead, casual importers must be subjected to VAT at the border.

Threshold

The VAT threshold must be set at a higher rate than the existing YER 50 million threshold. The existing threshold is lower than what is followed by peer countries from the GCC and the MENA region. ERLP recommends raising the threshold to the equivalent of USD 100,000 that tax literature recommends for developing countries with weak capacity.[4,5] International experiences suggest that it countries with the lowest thresholds fail to administer VAT systems effectively.

[4] Keen and Mintz (2004) Keen, Michael (2007) —VAT, Tariffs, and Withholding: Border Taxes and Informality in Developing Countries, IMF Working Paper WP/07/174, July show that the optimal' threshold is determined by balancing collection costs against the marginal value of additional tax revenues (the amount of which naturally depends on the tax rate and the tax base).

[5] Cnossen, Sijbren (1994) —Administrative and Compliance Costs of the VAT: A Review of the Evidence, *Tax Notes International*, June 20: 1649-68 reports average VAT administration costs of US$100 per registrant and compliance costs of US$500. Using this figure Ebrill et al. (2001, 119) estimate that with a VAT rate of 15%, a ratio of value-added to sales of 40%, and an estimated marginal value per dollar of tax revenue, a threshold of US$52,000 would be warranted. Since the relevant costs are those related to marginal taxpayers they are likely to be somewhat higher, as Ebrill et al (2001) note. Allowing for

On the other hand, global experiences have also shown that raising the threshold and dropping small taxpayers works best for VAT implementation. Any immediate revenue loss resulting from the increase in threshold could soon be recouped once the administrative effort freed from processing numerous low-return taxpayers is shifted to medium and large taxpayers. These, in turn, account for the greatest part of the revenues driven by the VAT.

Tax rate

The authorities concur with ERLP that the current standard GST rate of 5 percent under the GST Law is very low compared to peer countries where rates vary from 10 to 15 percent (Egypt 14 percent, Lebanon 10 percent). An appropriate time to raise the rate to the recommended 10 percent range would presumably be when Yemen moves to a full-fledged VAT. A reduced rate of 5 percent for essential goods, like food grains and schoolbooks, could also be introduced. Currently, these essential goods are completely exempted from taxes.

Exemptions

Much of the potential VAT base is excluded from the scope of the tax in many developing countries for a variety of reasons – administrative, distributional, and economical. In Yemen, the tax base is already so narrow that these types of exemptions - if applied on a VAT instrument as they currently are through the GST system - will restrict the positive impact on revenues.

Some of the specific exemptions provided in Table 1 of the GST Law need to be re-examined -- and probably restricted -- when drafting the new VAT law. Although the revenue involved is likely to be small, a few items that are specifically exempted should be reconsidered (e.g., hotels, internal land transport services, non-governmental organizations).[6]

Finally, exemptions should not be established outside the framework of the VAT law. Article 41 of the tax law mentions that exemptions can also be allowed under investment laws, but this is not a good international practice. All exemptions should be specified only in the VAT law.

Exemption for Financial Services

Under the current GST Law, financial services are exempt from VAT. This is a common exemption that is granted in most countries. Even in developed economies with sophisticated financial institutions and markets and capable tax administration authorities, financial service activities are exempted from VAT.

The simplest solution is to maintain the exemption system, which at least brings some VAT revenue out of the financial sector by taxing inputs at the pre-retail stage. However, some non-financial services

inflation since 1994, one can reasonably adjust the 1994 cost figures to, say, US$150 and US$650, which would increase the threshold estimate to about $68,000. Since the relevant costs are those applicable to the marginal taxpayer, they are likely to be higher than average costs, so the very rough number given in the text above ($100,000) seems reasonable as a reference point

[6] Of course, with VAT even an exempted good is in fact still subject to some taxation to the extent that inputs into its production are subject to VAT. Only when a good is "zero rated" is it really freed from VAT. As a rule, however, developing countries are well advised to avoid zero rating other than for exports. Yemen should continue to restrict zero rating only to exports.

performed by banks, such as advisory service, brokerage, and safe deposit lockers, can be included under normal services that are subject to VAT.

Real Estate Properties

Under the current GST Law, rentals and exploitation of lands and real estate to develop private housing facilities are exempted from VAT.

Immovable property refers to the bundle of legal rights associated with ownership and use of land, structures, and improvements. Services associated with real estate property development include construction, renovation, leasing, and sale. These services must be carefully considered before setting up a VAT.

In OECD countries, supply of land and buildings, and letting of immovable property, are subject to a standard VAT exemption. At the same, time many OECD countries diverge substantially from this rule.

At a more detailed level, within the European Union, although both sales and rentals of existing real estate facilities are VAT-exempted, newly constructed buildings as well as remodeled facilities are fully taxable under the existing VAT system. A VAT is charged on future services (based on residential use or subsequent sale) at the time of purchase of the property. However, a subsequent increase in property value is not taxable, as it is not recorded as the tax base. While the sale of existing properties is exempted from VAT in the EU case, the return from the sale of a property is subject to other special taxes and fees; such as land transfer taxes, stamp duties, notarial fees, and registry charges, as well as capital gains tax.

It may perhaps be especially appropriate in countries like Yemen, which do not appear to impose significant property transfer taxes in other forms, to impose VAT on new buildings -- as a sort of VAT prepayment. This can at least be applied to properties that are sold for commercial (non-residential) purposes. Also, intermediation services, such as real estate commissions, should be subjected to VAT.

Tax deferral on Import of Raw Materials and Capital Goods

There seems to be no adequate rationale for a general deferral of VAT on imports of raw materials, machinery, and equipment.[7] Many of these items with respect to which VAT is not collected immediately at the border are not subsequently subjected to any tax. Deferring tax payments for all raw materials and investment goods is not an effective solution and must clearly be revisited.

A more reasonable solution is to develop a shortlist of compliant taxpayers (which can be determined on the basis of the evidence-based risk management system) who can benefit from VAT deferral on imports for a limited period. This deferral should not be allowed for raw materials and investment goods that go into manufacturing items produced primarily for domestic consumption.

[7] Keen, Michael (2007) —VAT, Tariffs, and Withholding: Border Taxes and Informality in Developing Countries,‖ IMF Working Paper WP/07/174, July discusses the importance of the import VAT in countries with large informal sectors.

Refunds

Many developing and some advanced countries struggle with the problem of fraudulent VAT refund claims. In Yemen, refunds are not given to exporters unless they show evidence of the proceeds from export being deposited in a Yemeni bank account as a means to ensure that genuine export has taken place.

When designing a VAT law, MOF must consider providing refunds to new registrants only after a mandatory six-month period. This will provide an adequate timeframe for proper review of the refund claims while also rendering fraud a less attractive option to the fly-by-night misusers of the system.

Roadmap

Based on the aforesaid discussions on the technical aspects of the transition from the current GST to a full-fledged VAT regime, a roadmap is presented below in Table 4, with a timeframe, key actions required, and the agencies that would be responsible for supporting these actions.

Table 4: Time-framed Game Plan to Transition from a hybrid/GST structure to a VAT System

Timeline	Action	Support
July to Sep. 2021	Discuss with key stakeholders the key policy parameters for the new VAT, determining rates, exemptions, tax base, and registration threshold.	MOF, Tax Authority, Customs, Chamber of Commerce, ERLP
Oct. to Dec 2021	Draft the major provisions of the new VAT law based on the policy parameters set earlier, including substantive and procedural provisions.	Ministry of Law, MOF, Tax Authority, ERLP
Jan to Mar 2022	Discussion of the VAT law in Parliament, Passage of the VAT law in Parliament, or alternatively, a Presidential Decree.	Ministry of Law, MOF, Tax Authority, Parliament, Presidential Secretariat
Jan. 2022-April 2022	Design and development of supporting subordinate rules, regulations, procedural requirements, forms, etc.	Ministry of Law, MOF, Tax Authority, ERLP
Jan. 2022-April 2022	Formulate software/hardware specifications for the IT system and related business flow requirements for the new VAT	MOF, Tax Authority, ERLP
May to July 2022	Invite relevant donor institutions to discuss financing the development of the IT system and other related modernization through grants/credit.	MOF, Tax Authority, World Bank, Islamic Bank, ADB
April 2022 – Dec 2022	Train Tax Authority staff in VAT audit, returns processing, and other functions specific to VAT. Identify and mentor leaders who will implement the VAT	MOF. Tax Authority, ELRP
Jan-23	Launch the new VAT in a phased manner, first in Aden, then gradually to other governorates	MOF, Tax Authority

APPENDIX

QUESTIONNAIRE DISCUSSED WITH THE MINISTRY OF FINANCE AND TAX AUTHORITY

Item	Definition	Law 19 Article
Taxable Person	Any legal or natural person whose sales' value of taxable commodities or services reach the registration limit indicated by the law, either by direct sale or through a dealer; as well as any importer of a taxable commodity or provider of a taxable service, whatever be the volume of his imports.	Article (2)
Importer	Any person who imports commodities or services to Yemen from a foreign country	Article (2)
Taxable Services	Any services other than those which are tax-exempt by the law.	Article (2)
Taxes on Imports	A tax paid on imported commodities and services subject to the tax according to the provisions of article (40) in the law, whether the person importing the commodity or the service is registered or not, and whatever the volume and value of his imports are.	Article (6)
Taxes on Inputs	Taxes previously paid by a taxable person on sales of domestic commodities and services or on imported commodities and services.	Article (2)
Sales Invoice	Invoice issued by a registered person upon the sale of a commodity or service according to the reference model defined by the Authority	Article (2)
Free Zones	The territories of the Republic outside the custom-controlled zones were created according to the provisions of the law.	Article (2)
Registration Threshold	The registration limit is not less than 50 million YER on total taxable persons' sales of commodities and services subject to the tax and resulting from all activities exercised during the year in the Republic of Yemen.	Article (6)
Mandatory Registration	Any person is obligated to register himself if the value of his sales amount or exceed the registration threshold during the previous financial year	Article (6)
Inputs Tax Deduction	When calculating the due tax, the registered person has the right to deduct from the total payable tax the values paid as follows: 1. Tax paid on inputs of commodities and services subject to tax within the tax period. 2. Tax paid on inputs of imported commodities and services during the 3. Tax period. 4. Inputs tax allowed to be deducted per clause (f) of the article (11) of this law. 5. Inputs tax unallowed to be deducted per clause (b) of this article in case the registered person obtains a sale invoice relating to commodities sold or services provided. 6. Inputs tax paid on wasted or lost commodities locally produced, which were imported per the rules and criteria determined by the executive regulations.	Article (14)

Item	Definition	Law 19 Article
Tax Collection	• According to the law, the registered person should pay the tax based on the tax declarations presented to the Authority at the specified dates of presentation of the declarations. • The tax is collected based on the final assessment of the tax declaration. • Except for the production inputs and capital commodities (equipment and machinery), tax on imported commodities is paid upon their release from customs according to the procedures of the customs authority. The tax on imported services is paid at the same time when its value is paid. The beneficiary person is obligated to present the declaration, deduct, and pay the tax amount according to the provisions of this law.	Article (30-32-34)
Consumption Tax	Article no. 70 of 1991 on consumption tax is canceled from the date of commencement of this law.	Article (69)
Penalties of Tax Evasion Crimes	Without prejudice to any more severe penalty provided by another law, the evasion of tax is penalized as follows: a. A penalty not less than 50% and not more than triple the value of the unpaid tax for the first time. b. In case of repetition of the violation of the law, at the second time, the fine is multiplied, and if repeated again within one year, the court may either determine maximum fine or an imprisonment period of no less than three months and no more than six months or both.	Article (46)

FROM THE AMERICAN PEOPLE

ECONOMIC RECOVERY & LIVELIHOODS PROGRAM (ERLP) - YEMEN

ANNEX 21

REPORT ON UPDATED INVENTORY OF TAX EXPENDITURES, ALONG WITH TARGETED POLICY REFORM RECOMMENDATIONS DESIGNED TO LIMIT REVENUE LEAKAGE

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USAID/Yemen - Economic Recovery & Livelihoods Program (ERLP)

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ABBREVIATION AND ACRONYMS

CBY	Central Bank of Yemen
CIT	Corporate Income Tax
COVID 19	Corona Virus Disease 2019
ERLP	Economic Recovery and Livelihoods Project in Yemen
EU	European Union
FEZ	Free Economic Zone
GDP	Gross Domestic Product
GFS	Government Finance Statistics
GOY	Government of Yemen
GST	General Sales Tax
IMF	International Monetary Fund
MOF	Ministry of Finance
NPO	Non-profit Organizations
OECD	Organization for Economic Cooperation and Development
PIT	Personal Income Tax
SME	Small and Medium-sized Enterprises
SOE	State Owned Enterprise
UAE	United Arab Emirates
USAID	United States Agency for International Development
USD	United States Dollar
VAT	Value Added Tax
WB	World Bank
YER	Yemeni Rial

INTRODUCTION

At the request of the Ministry of Finance, the ERLP Fiscal Team updated an inventory of tax expenditures in the Republic of Yemen. In the previous quarter, ERLP conducted an initial inventory of tax expenditures along with a general analysis of tax policy fault lines; by identifying characteristics of the Yemen tax system that is considered weak tax policy. In this quarter, a special request from the Ministry of Finance (MOF) and the Tax Authority is to update the inventory of tax expenditures to draft targeted policy reform recommendations designed to limit revenue leakages.

This analysis comes as a result of several rounds of consultation meetings conducted remotely via Zoom with the senior staff of the MOF and Tax Authority over the period February to April 2021. The main objective of this report is to review and evaluate the current types of tax expenditure in Yemen and propose necessary fiscal reforms. A brief review of the context will set the stage for a detailed analysis, first of the initial evaluation in the first quarter and second of an updated inventory analysis and targeted reform recommendations.

A quantification of tax expenditures in terms of Yemeni rial of revenue foregone will be possible only when the Tax Authority and the MOF are able to extract data on exemptions and reduced rates claimed by each taxpayer, and thus build a regular database of tax expenditures by each type. In the absence of this database, the report calculates the tax gap for each major tax type. It should be noted that the tax gap includes both the policy gaps (considered as tax expenditure) and the compliance gap. Quantification of the tax policy gap pr tax expenditure, at some stage, will be able to provide us with an estimation of the compliance gap.

CONTEXT

Yemen, a low-income, in-conflict country in the midst of an ongoing economic and humanitarian crisis, now faces the challenge of dealing with the global COVID-19 pandemic. Real GDP contracted by 5.0 percent in 2020, according to IMF estimates, and is expected to grow by 0.5 percent in 2021.[1] Despite the exceedingly difficult conflict situation and economic contraction, restoring fiscal stability is critical to ensure the sustainability of economic progress and alleviate pressure on the Yemeni rial since most of the cash deficit is financed through monetization.

The budget deficit stood at 4.9% of GDP in 2019 and increased to 5.2% of GDP in 2020.[2] Yemen's non-oil tax revenue (including Customs) for 2020 accounts for 2.3% of GDP (YER 345 billion), compared to around 15% of GDP recommended by the IMF for developing countries. Total non-oil tax revenues are expected to reach YER 418 billion (2.3% of GDP) in 2021 (Table 1).

Table 1: Summary Table of Non-oil revenues in YER billion

	2019 Actual	2020 Estimates	2021 Forecast
Total non-oil revenues, of which	443.4	600	758
Total domestic taxes	221	230	280
Central government account taxes	221	224.8	273.7

[1] IMF (2020). *World Economic Outlook, October 2020*

[2] IMF (2020). *World Economic Outlook, April 2020*

	2019 Actual	2020 Estimates	2021 Forecast
Income taxes	97	97	118
General sales tax	124	127.6	155.4
Other taxes	0	0.4	0.5
Local account tax receipts		0.6	0.7
Common account tax receipts		4.8	5.8
Customs	97	115.3	137.7
Dividends, sale of crude oil and gas, grants	48	248	333
Grants	48	94	148
Other revenues	78	6.2	7.5
Memo: GDP current prices)	***12,614*** *(World Bank data)*	***14,812*** *(ERLP estimate)*	***17,864*** *(ERLP estimate)*

Source: ERLP team estimates

As a minor oil-exporting country, the most important sector of the economy is dwindling oil extraction, which used to account for around 70 percent of government revenue in the pre-conflict era. However, the decreasing demand for oil due to the pandemic-related economic slowdown reduced this source of revenue in 2020. According to ERLP estimates, oil revenues are estimated to rebound and reach YER 887.5 billion in 2021 (with a projected average oil price of USD 60.2 and projected exchange rate of YER 840/USD); compared to YER 330 billion only in 2020. It is expected that oil prices would remain highly volatile in the coming few years. While the latest projections indicate that oil prices will hover around USD 50-60/barrel during 2021-22, global demand for oil is expected to decline in the medium to long term, with greater emphasis on clean energy.

Tax compliance in Yemen is very low by regional and international standards (see Table 2). The filing compliance rate recorded 42.2 percent for the first six months of 2020, with the services sector registering the lowest level at a compliance rate of 15.7 percent. Lack of transparency is a major contributing factor to the low level of compliance in Yemen. According to the Transparency International Report of 2020, Yemen was ranked number176 in terms of transparency practices, out of a list of180 countries covered by the assessment.[3] The level of business participation, in terms of taxpayer registration in the three governorates under government control: Aden, Hadhramaut, and Tai, is particularly low. There are only 51 registered taxpayers in the professional services sector and 167 in trade, approximately half of these from Aden. In effect, accountants, lawyers, architects, and other lucrative professions practically escape the GST.

Table 2: Number of taxpayers, VAT returns, filing compliance rate (Jan. - June 2020)

Governorate/Sector	Total			
	Registered Taxpayers	Expected Tax Returns for Six Months	Actual Tax Returns	Compliance Rate %
Manufacturing	85	510	299	58.2
Trade	167	1002	421	42.0
Other professional services	51	306	48	15.7
Total	303	1818	768	42.2

[3] Transparency International (2021). *Corruption Perceptions Index 2020.* Berlin, Germany. January 2021.

Source: Tax Authority Yemen

Fiscal policy and revenue administration are critically important aspects of post-conflict recovery. It brings with it a host of distributional, efficiency, and political economy dimensions that the Yemeni government and society are grappling with. International experience in many transitional contexts suggests that effective fiscal management can have major impacts on peace and post-conflict reconstruction. Distortions created by the fragmentation of institutional capacity in the Central Bank of Yemen (CBY) and other government agencies (including the Ministry of Finance and the Tax Authority); and by diverging policy decisions taken by parties to the conflict have further compounded the crisis. However, tax collection and revenues improved over the year 2020, making it possible to resume paying civil servant wages and pensions, thus increasing household purchasing power.4 At some stage, it will be critical to overcome institutional fragmentation and harmonize policy implementation across the country.

REVIEW OF TAX EXPENDITURES IN YEMEN

CURRENT TAX POLICY SYSTEM

To conduct an initial tax expenditure analysis in Yemen, it is important to assess the main features of the current income and sales tax policy framework to identify tax leakage gaps/exemptions compared to benchmark tax systems operating in peer countries. This overall assessment is going to include three main types of taxes (a) personal income tax, (b) corporate income tax, and (c) sales tax.

Examining the income and sales tax main parameters currently in place and generating the actual income and sales tax receipts is essential to compare it later with the benchmark parameters of 'natural' tax systems to identify major gaps and propose reforms effectively. The main parameters consist mainly of tax rates and tax exemptions. The examination is based on the current Income Tax Law No. (17) of 2010 and Sales Tax Law No. (19) of 2001.

The Yemeni tax regime is relatively simple. The following table summarizes its main features.

Table 3: Summary of Yemen's current tax regime

	Tax base	Tax rates	Exemptions
Personal income tax	Worldwide income (residents) Yemeni source income (non-residents) Zakat (on net wealth)	10% for YER 120,000 240,00 15% above 240,000 20% 2.50%	Basic exemption of YER 120,000
Withholding tax	On payments made to non-residents and on fees for (if approved by Yemeni CB)	10%	Dividends and interest on bank deposits paid to residents; (commissions, patents,

	Tax base	Tax rates	Exemptions
	transfer/use of technology/licenses. Fees paid to resident technical and professional service providers	 3%	trademarks, interest paid to foreign banks copyright royalties)
Property Tax	Based on rental value of property of land, constructed property.	One month's rent 1%	
General Sales Tax	 Export, int'l transport, baby milk Gold (half-manufactured) Jewelry and gold Telecommunication Qat Cigarettes, cigars, arms, ammunition	5% (general rate) 0% 2% 3% 10% 20% 90%	Services (financial, insurance, health, education, non-profit, land transport, renting, water, clean-up, historical, religious)
Social security	By company By employee	9% of salary 6% of salary	
Customs	The assessed value of imports, applying CB exchange rate	Ad valorem duties of 5, 10, 15, and 25%	More than half the scheduled items are taxed at ≤ 10%.

Based on the Income Tax Law No. (17) of 2010, the scope of the income tax in Yemen includes four main categories of income as detailed hereafter:

- Income generated by resident legal persons, whether gained inside or outside the country.
- Income realized by resident natural persons.
- Income of natural persons, whether resident or non-resident, from an external source through businesses or services performed in the country; and
- Income of non-resident persons, whether natural or legal, gained within Yemen.

There are seven types of income tax in Yemen, which vary from the classic GFS 2001classification and vary from general international practice. According to GFS 2001 classification, tax on income, profits, and capital gains are generally levied on (i) wages, salaries, tips, fees, commissions, fringe benefits, and other compensations for labor services; (ii) interest, dividends, rent, and royalty income; (iii) capital gains and losses, including capital gain distribution of investment funds; (iv) profits of corporations, partnerships, sole proprietorships, estates, and trusts; (v) taxable portions of social security, pension, annuity, life insurance, and other retirement account distributions; and (vi) miscellaneous/other income items. Moreover, according to GFS, income tax is either attributed to individuals or corporations. In the case of Yemen, however, the seven types of income tax according to Law No (17) are as follows:

- Tax on commercial and industrial profits
- Payroll tax
- Provisions of tax on mining activity
- Small -scale and micro-enterprise tax

- Tax on net income of non-commercial and non-industrial professions
- Tax on real estate revenues
- Tax on the change of the ownership of the real estate

Beyond the main types of personal income tax items listed above, there are other types of income subject to reduced taxation rates. For example, income tax on each amount paid as a commission or incidental brokerage is only ten percent, and so is the income tax on real estate revenues (based on the monthly rental value of the property). Moreover, a change in property ownership is subject to a one percent tax on the total value of the transaction. More precisely, the latter should not be considered an income but a property transfer tax. However, based on best practice experiences, a capital gain tax based on the sale of a given property should be charged according to the normal income tax rate without reduction.[5]

Within the context of this study, we primarily focus on corporate income tax (CIT) and personal income tax (PIT). These two categories show major deviations from best practice records, creating room for significant tax expenditure gaps.

As for the corporate income tax (CIT), the following table shows the tax brackets and different tax rates levied on corporate income. The exemption limit is set at 120,000 YER of total annual proceeds for corporate taxpayers. In addition to the 'standard flat rate' as per the ministry of finance team -- set at 20 percent -- there are two reduced rates at 10 percent and 15 percent, based on established income brackets.

Table 4: Corporate Income Tax Rates & Brackets

<120000 YER	Exemption Limit
120000 YER - 60000	10 percent
60000 - 840000	15 percent
>840000	20 percent

As for corporate income tax (CIT) in the commercial and industrial sectors, tax is subject to the standard rate of 20 percent, except for four major categories that are subject to different tax rates. Some rates are higher than 20 percent, ranging from 35 percent to 50 percent on net profits realized by cell phone service providers and cigarette companies. These are not considered tax expenditures per se, as they do not lead to revenue loss. In terms of tax policy nomenclature, these are in the nature of surtax charges. The only category of income with a reduced tax rate of 15 percent, which is considered as tax expenditure, covers the following:

a. Investment projects with investment capital of no less than 3 million USD and with a minimum number of 100 employees engaged in activities directly related to these projects. These projects must also keep regular accounting records, submit certified tax declarations, and settle payroll tax obligations monthly for all personnel. Finally, the project should maintain its investment licensing status from the competent state authority.
   Investment projects benefiting from this reduced -15 percent tax rate should operate in the specific economic sectors defined by the income tax law, including:
    - Infrastructure projects in the energy, electricity, water, sanitation, and road infrastructure sectors;

[5] Capital gain is the difference between the market price and the book value of the property.

- Land, air, and ocean transport;
- Health development projects and hospitals;
- Computer programming and software production activities;
- Hotels, tourist cities, and amusement parks;
- Industrial and agricultural production projects.

INVENTORY OF TAX EXPENDITURES IN YEMEN

The following list covers all areas of tax expenditure gaps in Yemen. These are further discussed in detail in the following section.

PERSONAL INCOME TAX (PIT)

- Interest paid on savings at Yemen Post Office is tax-exempt
- Interest on government bonds is tax-exempt
- Other interest is subject to a flat-rate 10 percent tax (which for some taxpayers is a non-standard lower rate)
- Income from micro-businesses (annual turnover less than YER 1.5 million, with no more than three employees)
- Income from (approved) pension funds is tax-exempt
- Certain in-kind employee benefits are tax-exempt
- Dividend income is tax-exempt
- Capital gains (other than gains realized in the course of business activity) are tax-exempt
- Capital gains on disposal of real property received by non-residents are tax-exempt

CORPORATE INCOME TAX (CIT)/ BUSINESS TAX

- Tax-exemption is granted for companies operating in Aden Free Zone
- Tax exemption is granted for non-for-profit organizations (NFOs)
- Tax exemption is granted for agricultural cooperatives
- Profits from farming (and fisheries) are exempt from tax
- Income from exports is exempt from tax
- The additional deduction is provided for wages paid to newly hired employees (50 percent in the first year, declining by ten percentage points in each subsequent year)
- Bonus depreciation for capital investment in plant and equipment for mining activities is provided
- Exploration expenses for mining projects of over USD 150 million are deductible (rather than depreciable)
- A reduced tax rate of 15 percent is granted for investment projects listed in the Investment Law of 2010

SALES TAX

The main tax policy features established through the current sales tax law (Law No. 19 of 2001) are listed hereafter:

- All goods and services, not otherwise subject to a different rate, are subject to a standard rate of 5 percent of the sales value of the commodities.

- Imported goods and services are subject to a 10 percent tax rate; an additional 5 percent rate has been added for imported petroleum products, such as kerosene, mazott, solar, butane gas on the consumer sale price. This comes as a result of a decree issued by the Prime Minister at the end of the year 2018.
- Exported commodities and services, baby milk products and services of international air navigation, and any services related to international civil aviation services and international maritime navigation services and services of ports and international land transport services are subject to a zero percent rate.

The following good and services are subject to lower than standard general tax rates:

- Valuable metals (gold and ordinary gold-coated metals)
- Manufactured and semi-manufactured Jewellery, gold, and other precious accessories

The following commodities are exempt from sales tax:

- Wheat and wheat flour
- Rice
- Medicines
- Gold/Precious Ores
- Personal effects of travelers coming from abroad
- Paper money and circulated coin

Table 5: Sales Tax Exemption List of Services

1	Financial; including banking and insurance services
3	Health and hospital services
4	Educational services of all types
5	All non-profitable services carried out by non-governmental agencies, societies, and organizations recognized by competent authorities
6	Selected internal land transport services: Goods transport services (except special delivery carrier services); Passenger transport services; Highway maintenance services.
7	Private land rental and real estate services
8	Water services (except mineral and bottled health water), sewerage, and electricity
9	Housing and street cleaning and pollution control services (including waste and garbage collection)
10	Restoration of historical monuments
11	One-star hotels and lower-end lodging services
12	Pilgrimage services (when booked through pilgrimage and Umra agencies)

In addition to the exemption lists above, there are a number of exemptions based on special agreements. These cover the following items: i.) Commodities and services imported or locally purchased by embassies, commissariats, consulates, and non-honorary consulates for official use (except foodstuffs and cigarettes) and ii.) Commodities and services imported or locally purchased by international and regional organizations operating in the Republic and their non-Yemeni employees enjoying diplomatic capacity for private use.

ANALYSIS OF TAX EXPENDITURES IN YEMEN

OVERALL TAX GAP ANALYSIS

In the absence of data from tax returns regarding exemptions and reduced rates claimed by taxpayers, an overall quantification of tax expenditure utilizes the tax gap concept as a proxy to estimate the level of tax expenditures according to main tax types in Yemen. It should be noted that the tax gap includes covers two distinct dimensions: the policy gap (which is, in fact, the tax expenditure) and the compliance gap.

The methodology we used to estimate tax expenditures is based on estimating the potential tax base for direct and indirect taxes, utilizing GDP by expenditure components.[6] ERLP experts obtained data on GDP expenditure components from the Central Bank of Yemen for 2015-17. By taking a three-year average, we were able to produce the value of tax expenditures as a percentage of GDP for 2019.

We were also able to estimate the potential tax base by applying the CIT to overall investment expenses as a proxy, the PIT to overall wages and compensation of employees as a proxy, and VAT to overall household final consumptions and imports of goods and services. For indirect taxes, we reduced the base to avoid double-counting problems. In this regard for imports of goods and services, we discounted 30 percent of the total base -- under the assumption that this portion did not represent final consumption goods but rather inputs into final goods that would eventually be deducted from the tax.

The results indicate that tax gaps as a percentage of GDP are highest for VAT on domestic goods and services, reaching 3.2 percent of GDP, followed by CIT, where the tax gap is estimated at 2.7 percent of GDP. The PIT tax gap is estimated at around 0.9 percent of GDP, which is generally consistent with most other peer countries from the region. The VAT gap for imported goods is estimated at 0.02 percent of GDP only, indicating that there appear to be no major leakage points in the current tax policy framework for this item.

The results also reveal that the tax gap for CIT, PIT, and domestic VAT as a percentage of potential tax receipts is quite high: 86 percent, 85 percent, and 94 percent, respectively. However, the VAT gap on imported goods is very low by comparison -- it represents just 3% of potential tax receipts.

Table 6: Summary of Overall Analysis of Tax Expenditures

Tax Expenditures in Yemen						
Tax Item	Actual Tax Receipts as of 2019 in bill YER	Potential Tax Rate Base (Based on GDP Expenditure Component)	Tax Rate (%)	Potential Tax Receipts in bill YER	Tax Expenditures as % of Potential Tax Receipts	Tax Expenditures as %of GDP
CIT	56.3	1,975	20%	395	86%	2.70%
PIT	18.9	854	15%	128.1	85%	0.90%
VAT on Domestic Goods and Services	24.4	8,471	5%	423.6	94%	3.20%
VAT on Imported Goods and Services	98.5	2,030	5%	101.5	3%	0%

GDP in current prices in Yemen in 2019 is YER 12,606 billion as per the IMF database

[6] Expenditure components of GDP include (i) consumption (private and government), (ii) investment (private and government) and net export (export – import).

PERSONAL INCOME TAX

For the PIT, interest paid on post office savings or government bonds is typically treated as tax-exempt in a large number of countries and is considered a reasonable tax policy. Nonetheless, for the sake of transparency, the cost of this exemption to the exchequer needs to be reported and quantified as a tax expenditure.

Exemption of interest on bank deposits, capital gains, dividend incomes, and in-kind employee benefits in Yemen are not following best practice standards, and therefore must be treated as tax expenditures, with significant leakage significant implications for receipts.

Exemption of income from micro-businesses with annual turnover less than YER 1.5 million (equivalent to about USD 6,000) and with no more than three employees is a type of basic threshold or standard deduction for income taxation. This aligns with best-practice experience and should not be viewed as a tax expenditure.

In terms of income from approved pension funds, exempting the income from pension funds altogether should be counted as a tax expenditure. Alternatively, the government could provide a tax deferral arrangement, such that the contribution to the pension fund is tax-deductible, and withdrawal from the pension fund at any point would subject the income again to income tax at the normal rate.

Other interest-based income is subject to a 10 percent flat tax rate. Personal income taxation should follow a progressive structure and include all sources of income for taxpayers. Maintaining a separate rate below the standard rate of 15 percent leads to loss of estimated revenues. The difference between the applicable rate for all income and the 10 percent flat rate for interest-based income should be considered a tax expenditure. Thus, we recommend that Yemen move to a progressive PIT rate with all sources of income aggregated and with rates similar to those in peer countries like Jordan and Egypt.

CORPORATE INCOME TAX

The Yemeni tax regime provides various types of incentives to promote investment and exports and spurring employment generation. Some of these are standard internationally and across peer countries. However, to provide a transparent assessment of the economic impact of these incentives, the latter must be assessed based on tax expenditure effects. For instance, tax-exemptions for companies operating in free economic zones (FEZ), such as the Aden Free Zone, are fairly common. Still, the revenue foregone by this exemption needs to be assessed based on tax expenditure impact. It is worth noting that wages and dividends received by individuals working in these economic zones would still be taxable within that context.

Tax-exemptions for non-for-profit organizations (NPOs) must be assessed based on tax expenditure impact as well. Typically, only non-profit activities are exempt in most countries. Still, any income generated from normal business activities of the NPOs -- which is not related to the social or charitable sector -- should be taxable. The same principle applies to tax-exemptions for agricultural cooperatives. Income from agricultural activities is taxable in most countries. Income of agricultural cooperatives from non-commercial activities to promote the interest of its members is typically tax-exempt, similar to that of NPOs. However, any commercial activity conducted by agricultural cooperatives, such as the sale of milk or grains, should presumably be taxable. Any deviation from this norm should be treated as a tax expenditure.

Profits from farming, fisheries, and exports are exempt from tax in Yemen. This constitutes a potentially significant tax expenditure. As far as exports are concerned, these are normally zero-rated for VAT purposes, but income from export activities is taxed at the standard rate.

An additional deduction for wages paid to newly hired employees (50 percent for the first year, discounted by ten percentage points each subsequent year) represents a type of incentive to generate employment. Although this deduction is associated with a policy effort by the government to promote employment generation, it still constitutes a tax expenditure. Including it as such and quantifying it will bring greater transparency and introspection into whether the incentive has achieved the desired objective and has, in fact, been effective or not in improving employment levels.

The government is applying a discounted income tax rate of 15 percent on income from investments to encourage new capital investment. While this seems to be a rather common practice experienced in many countries from the region, it does create a distortion, and the difference between the standard tax rate and this discount should be viewed as a tax expenditure. Purely from a tax policy perspective, allowing an investment allowance as a deduction from total income, with a 4-5 year sunset clause, is considered a better tax policy than providing a lower tax rate for income from new investments. This is because a deduction based on a percent of the new capital employed is more targeted. In contrast, a reduced tax rate, if not properly structured or monitored, could, in principle, provide benefit to both new and old investments.

GENERAL SALES TAX

In Yemen, the General Sales Tax (GST) consists of a hybrid Sales Tax/VAT. Some medicines and basic food items, such as wheat and rice, are exempted. This is a common policy witnessed in many developing countries since it serves a social purpose. However, this exemption must still be viewed as tax expenditure, contributing to a loss in tax revenues.

Financial services in Yemen are exempted from VAT. In fact, in a standard VAT regime in most developed countries, financial services, including banking and insurance services, are also exempted from the VAT; due to the complexity involved in determining the value-added associated with financial services. Healthcare services are also exempted from VAT in most leading economies. However, from a tax policy perspective, these exemptions are viewed as tax expenditures, and they can be estimated based on the input-output tables in a given country.

Purchases made by diplomatic missions and international development agencies in a host country are exempted from VAT based on reciprocity. The same principle applies to international air and maritime transport, and in the case of Yemen, pilgrimage and Umrah are also exempted from VAT for cultural reasons.

Most other exemptions provided under the GST law of Yemen do not seem to follow any standard practice. Transactions of NPOs should not be exempted, while personal and corporate income from an NPO should be exempted.

Exemption of gold, precious metals, internal land transport, real estate services, lower-end lodging, or hotels are not justifiable on a best practice basis and should be treated as a tax expenditure.

CONCLUSIONS AND POLICY RECOMMENDATIONS

Promoting an efficient and transparent taxation framework is as or more important than rate hikes. In this regard, increasing revenues does not only depend on tax rate leverage. It also depends vitally on the design of an efficient overall tax structure, which must be elaborated to minimize market distortions and limit income disparities.

Tax expenditures are commonly used to provide financial support to a selected segment of the society and serve an explicit or implicit societal welfare enhancement goal. They are defined as a reduction in tax liability compared with a "benchmark tax system." They may take different forms, can be temporary or permanent, and can be consolidated within the legal framework governing economic activities (e.g., the laws regulating economic activities in specialized economic zones, investment promotion codes, etc.).

The assessment of tax expenditures is crucially important from an overall reporting and fiscal management perspective. According to existing laws (e.g., income tax law, sales tax, free-economic-zones law, etc.), these should also be announced by the government transparently.

Based on the analysis conducted by the ERLP team on the cost of tax expenditures in Yemen, and after careful review of the existing legal framework, the following reform agenda/measures are recommended:

PERSONAL INCOME TAX

Contrary to the PIT regime in neighboring GCC member countries, Yemen levies a PIT that differentiates residents from non-residents. The government levies PIT rates of 10 percent and 15 percent of worldwide income for residents with a basic annual exemption limit of YER 120,000 (equivalent to USD 480(please refer to Table 3). However, resident foreign nationals and non-residents pay at a flat rate of 20 percent without basic annual exemption. This is not consistent with good international practice. Resident foreign nationals and non-residents should be subject to the same tax rates as resident citizens. It is assumed that foreigners earn higher income/salary than most residents.

The solution for that is to have PIT rates higher than 15 percent, say 20 percent, or even 25 percent, for higher income brackets beyond the YER 240,000 annual income (equivalent to USD 1,000). However, these brackets should apply to all residents, irrespective of whether they are citizens or foreigners. Non-residents should have the same rates and brackets as residents, but only their Yemen sourced income should be taxed. At the same time, it is recommended that the annual basic exemption limit, which is very low by standards of peer countries, should be raised to the equivalent of USD 1,000 or YER 250,000

Resident individuals are exempt from tax on income from income from bank deposits and dividends from companies. This is a serious drain on the revenue and a significant tax expenditure. These incomes should be included in the aggregated worldwide income of residents from all sources, including salary, business, professional and rental income.

Based on the initial benchmarking analysis, we found that many countries in the region apply progressive rates to different tax brackets (varying from 0 percent to 25 percent). In Egypt, for example, there are five income brackets subject to progressive rates of (0, 10, 15, 20, and 22,5) percent; and in Jordan, there are six brackets subject to rates varying from 5 to 30 percent.

In the case of Yemen, it is recommended that the personal income tax should be structured on a progressive basis, with a set of tax rates defined according to different tax brackets, which would be based on the level of income earned by residents from all sources (wages, business, interest on bank deposits, dividends, rental capital gains, etc.). There should be no separate rates for different sources of individual income under PIT. In the interest of administrative simplicity and to minimize avoidance incentives, it would be best to limit the number of tax brackets and associated rates to 3 or 4 maximum.

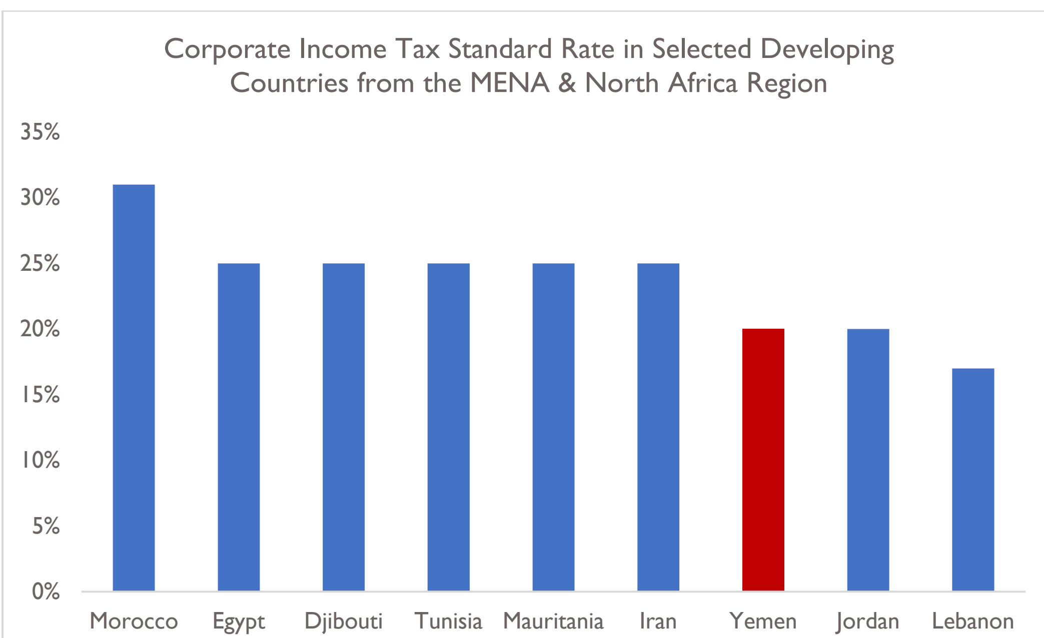
In view of the discussion above, the following PIT rates are proposed for the aggregate worldwide income of residents (citizens and foreigners) from all sources:

Aggregate worldwide income from all sources	Rate
Up to YER 250,000	0%
YER 250,000 – YER 500,000	10%
YER 500,000 – YER 1,000,000	15%
YER 1,000,0000 – YER 2,500,000	20%
YER 2,500,000 and above	22.50%

Evidently, most foreigners - with income levels higher than most citizens - will still pay at rates applicable to higher brackets. Still, this type of uniform tax rate structure for all residents (citizens or foreigners) will make the tax regime more equitable and in line with good international practice (as well as common practice in many peer countries). Moreover, the higher basic exemption limit will be more than compensated by the more uniform tax structure for all residents and a higher income bracket of 25% for income above YER 2.5 million.

CORPORATE INCOME TAX

There are at present different rates used to calculate the corporate income tax in Yemen, which represents a diversion from best practice guidelines. Chart 2 below demonstrates that the standard rate in most MENA countries is a single rate averaging around 25 percent. Morocco has the highest standard rate of 31 percent, and Lebanon has the lowest standard rate of 17 percent.



CIT in Yemen should be unified at a standard flat rate. The existing progressive structure encourages corporate maneuvering to either misreport actual corporate income or adopt inefficient corporate practices. Tax sources subject to lower rates should be viewed as a form of tax expenditure. On the other hand, higher tax rates for tobacco, petroleum, mining, and telecommunications businesses also represent poor tax policy. The tax policy norm is a single tax rate under the CIT. At the same time, revenues from extractive economic activities (petroleum, mining, fisheries, etc.) can best be taxed based on a separate/industry-specific tax policy; rather than through the establishment of higher CIT rates within the existing corporate income tax framework.

In sum, the government should move towards a unified corporate tax rate in a manner that helps prevent companies from gaming the CIT system.

SALES TAX

Yemen should consider replacing its general sales tax (GST) with a modern value-added tax (VAT). This could potentially be paired with special excise taxes for commodities currently taxed at a considerably higher rate than the general rate of 5%. Across many developing countries (including a number of post-conflict countries), a modern and simple VAT structure has been effective in creating a stable revenue base while avoiding market distortions based on selectivity.

The case for replacing Yemen's GST is particularly strong given the existing low rate for the GST (5%), the high thresholds currently being applied, and the generally narrow tax base structure. The following table provides a recap of VAT standard rates in other MENA countries:

VAT Standard Rate (%)		
	At Introduction	**In 2020**
Algeria	13	17
Iran	3.6	9
Yemen	5	5
Mauritania	14	16
Morocco	20	20
Tunisia	17	19
Egypt	10	14
Jordan	13	16
Lebanon	10	10

The ERLP fiscal team will continue to work closely with MOF and the Tax Authority to help develop a detailed database of all exemptions granted by the government to obtain a further fine-tuned estimate of overall tax expenditures in Yemen moving forward.

USAID ECONOMIC RECOVERY AND LIVELIHOODS PROJECT (ERLP) IN YEMEN

ANNEX 22

FOLLOW-ON REPORT WITH A DETAILED SET OF DRAFT REGULATORY REFORMS DESIGNED TO IMPROVE THE BASIC EFFICIENCY AND TRANSPARENCY

March 2021

Prepared for the United States Agency for International Development, USAID Order # 72027920M00001

USAID/Yemen - Economic Recovery & Livelihoods Program (ERLP)

The Pragma Corporation, 116 East Broad Street, Falls Church, VA 22046

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EXECUTIVE SUMMARY

The ERLP Team has developed a targeted action plan to address weaknesses across key performance outcome areas identified in the Performance Assessment Report conducted by ERLP in Q1. Based on this action plan, ERLP has worded with the Yemeni Tax Authority to prepare a revised organizational structure along functional lines. The revised structure allows for similar processes to be standardized across all tax classifications, enabling easier and simpler taxpayer interactions. It also simplifies the procedures that taxpayers must follow to comply with their obligations and permits greater organizational uniformity. In addition, it enables geographic bundling of all core functions for better management oversight and control and institutes uniform operating procedures for each core function across all field offices.

The revised structure will also facilitate the digitalization of work processes; and allow for greater specialization, training, and career development for staff. Additionally, it promotes greater efficiency and higher productivity within the Yemeni Tax Administration system while avoiding the duplication of processes and activities.

The function-based organizational structure is also critically important for driving improved compliance results and diminishing voluntary compliance burdens for taxpayers (for instance, by avoiding multiple audits at different times by different tax officials for a specific taxpayer). Fundamentally, a function-based organizational structure enables each unit/department to focus on specialized compliance activities, thereby promoting enhanced efficiency. Auditors, for example, can audit tax returns for all types of taxes, which enhances quality control and accountability management; since it avoids making any single official responsible for all administrative elements related to a particular taxpayer. The structure can also accommodate major legislative changes, such as introducing a new tax, with minimal changes to the existing organizational structure.

It is worth noting that the current organizational structure of the Tax Authority has inf act never been formally/officially approved by the Prime Minister. As a result, ERLP sees a clear opportunity for advancing the revised structure to the Tax Authority in a near-term timeframe.

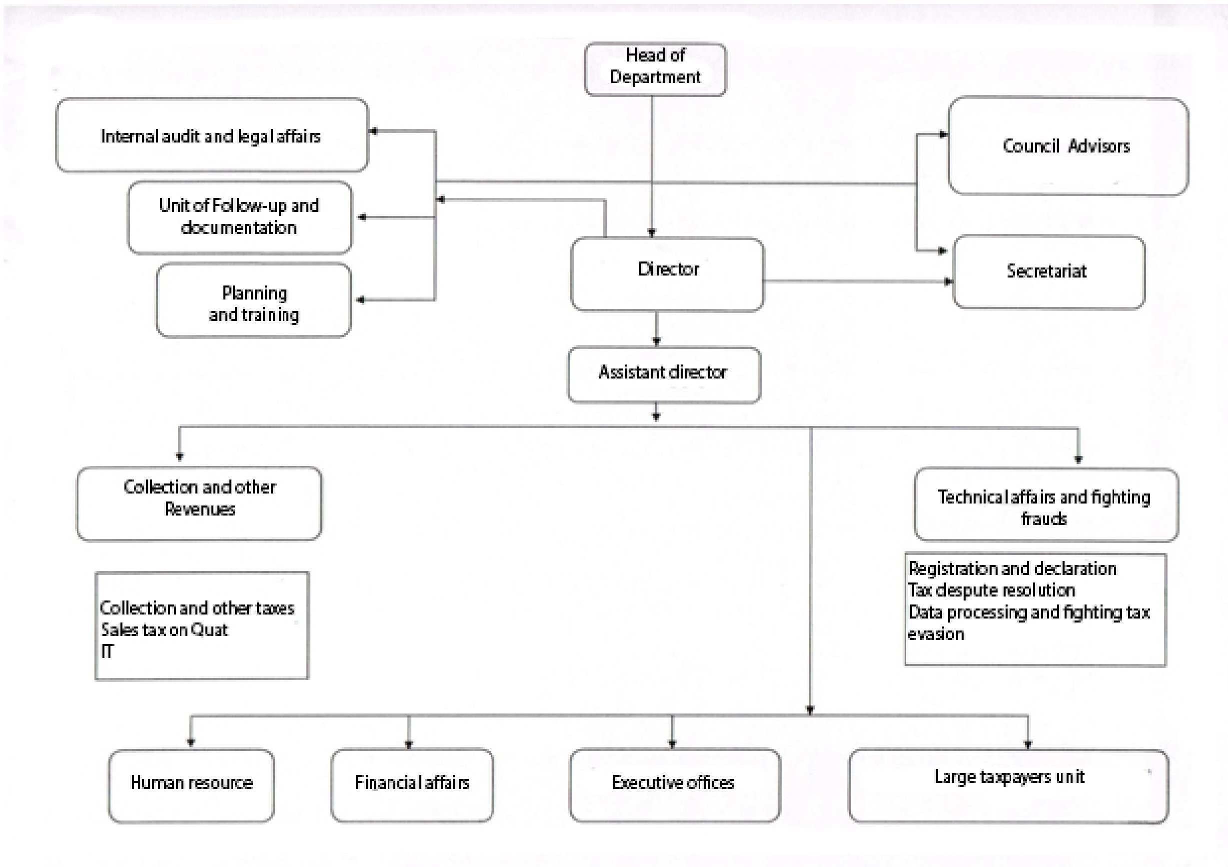
1. INTRODUCTION

Establishing a sound organizational structure for the Yemeni Tax Authority (YTA) represents a foundational component of an effective taxation reform and modernization program. A functionally-based organization is best-suited to fulfill the YTA's tax administration upgrading needs. This report compares the functionally-based organizational model with the existing structure followed by the YTA and discusses the different management-related challenges associated with the existing structure and the major efficiency and transparency advantages of introducing the recommended alternative structure.

2. CURRENT SITUATION

Chart 1 presents the existing/informal organizational structure of the Tax Authority. In accordance with this structure, the Head of the Yemeni Tax Authority (YTA) leads the organization's overall management, with the assistance of a director, an assistant director, and six operational assistant commissioners, as illustrated below. The YTA has approximately 35 employees located in the headquarters in Aden and in the regional offices.

Chart 1. Future organizational structure proposed by the Yemeni Tax Authority



Source: Yemeni Tax Authority.

Based on the existing organizational structure, the main responsibilities and functions within the tax authority are structured as follows:

1. **Inventory and Declarations Department:** Responsible for conducting all work related to taxpayer registration and declaration, preparing tax policies regarding taxpayer inventory, and preparing the overall YTA annual plan.

2. **Review, Assessment, and Appeals Department:** Responsible for taxpayer audit, estimation, and assessment, representing the YTA before the judiciary.

3. **Data Processing and Tax Evasion Enforcement Department:** Responsible for collecting and processing information from public and private third parties, in addition to preparing quarterly and yearly plans and answering inquiries from regulatory agencies in a timely manner.

4. **Tax Collection Department:** Responsible for collecting declarations, taxes, penalties, and fines, as well as drafting tax policies covering income tax collection.

5. **Qat Sales Tax Department:** Responsible for estimating revenues from the Qat sales tax for the general budget and preparing the annual work plan and monthly and quarterly programs for Qat sales tax.

6. **Information Technology Department:** Responsible for the maintenance and upgrade of the information technology infrastructure in the YTA.

7. **Internal Audit and Legal Affairs Department:** Responsible for reviewing the work of the YTA and its branches and offices to ensure proper implementation of laws and regulations, auditing balances, and accounting records; in addition to preparing the annual work plan and monthly/quarterly programs, and drafting new regulations and decisions in coordination with the competent authorities.

8. **Planning and Training Department:** Responsible for gathering and analyzing information and data management activities, studying draft plans submitted by the YTA, and following up on the implementation of approved programs and business plans.

9. **Financial Affairs Department:** Responsible for preparing the YTA budget and closing account and determining the YTA's equipment needs.

10. **Administrative Affairs Department:** Responsible for proposing plans and programs aimed at enhancing performance efficiency and cost-effectiveness

3. REVISED ORGANIZATIONAL MODEL

Choosing the right organizational structure is essential for improving operational results and increasing transparency and accountability across all core functional areas of YTA activity.

The organizational structure prototype followed by most tax authorities internationally has evolved considerably over time in a manner that is fundamental to the concept of enhancing efficiencies by promoting specialized administrative oversight along functional lines, supplemented at times by creating specialized units that address the differential tax administration challenges associated with different categories of taxpayers.

ADVANTAGES OF THE FUNCTIONAL ORGANIZATIONAL STRUCTURE

In general, the most successful configuration for efficient and transparent tax administration oversight activities has been based on a functional organizational structure, a tax administration structured based on the type of work performed, rather than the type of tax, business, or customer profile served.

The functionally-based organizational structure allows for enhanced uniformity and specialization across the organization; by combining all core tax administration functions under the oversight of a unified management structure. This, in turn, allows the tax authority to benefit from a **complete view of taxpayer behavior** across all tax types. Individual taxpayer behavior can also be more easily observable under this structure, delivering improved compliance results.

Common processes for core functions, rather than unique processes for each tax type, allow for simpler taxpayer interactions across the different functions (e.g., registration, services, payment, and auditing), without duplication across each tax type, leading to simpler processes for both taxpayers and the tax authority.

One of the strengths of function-based tax administration is the **ability to develop specialties** within the tax authority. Each task is located in one place within the organization, such that employees can study, research, develop, and perfect new specialized compliance enhancement techniques and approaches.

4. ROLE OF HEADQUARTERS, REGIONAL OFFICES, AND STAFF

ERLP proposes that the functionally-based organizational structure being advocated should be anchored by a strong **headquarters** unit that sets policy, program direction, and guidance. It should provide planning, support, and normative guidance for all field operations; without actually carry out any of those operations in the form of direct taxpayer engagement (see Chart 2). The main responsibilities of the headquarters are provided below:

- Preparing strategic plans;
- Preparing an annual national work plan based on pre-defined performance measures. The plan should also define the enforcement mechanisms, staffing levels, and related resource requirements;
- Monitoring, evaluating, and reporting national performance outcomes against the national work plan;
- Designing and maintaining standardized processes, norms, and policies; and producing the related documentation (manuals, circulars, etc.);
- Providing necessary guidance to field operational units as needed;
- Developing case selection criteria for compliance functions and field offices;
- Determining human resource needs, including staffing and training requirements;
- Providing the necessary financial resources.

At the headquarters, staff will primarily focus on drafting overall policies and operating procedures and laying these out in carefully crafted procedural manuals. Clear policies guide the consistent application of tax laws, regulatory guidelines, and administrative procedures by staff at all levels; and help ensure fairness, transparency, and predictability across the tax regime.

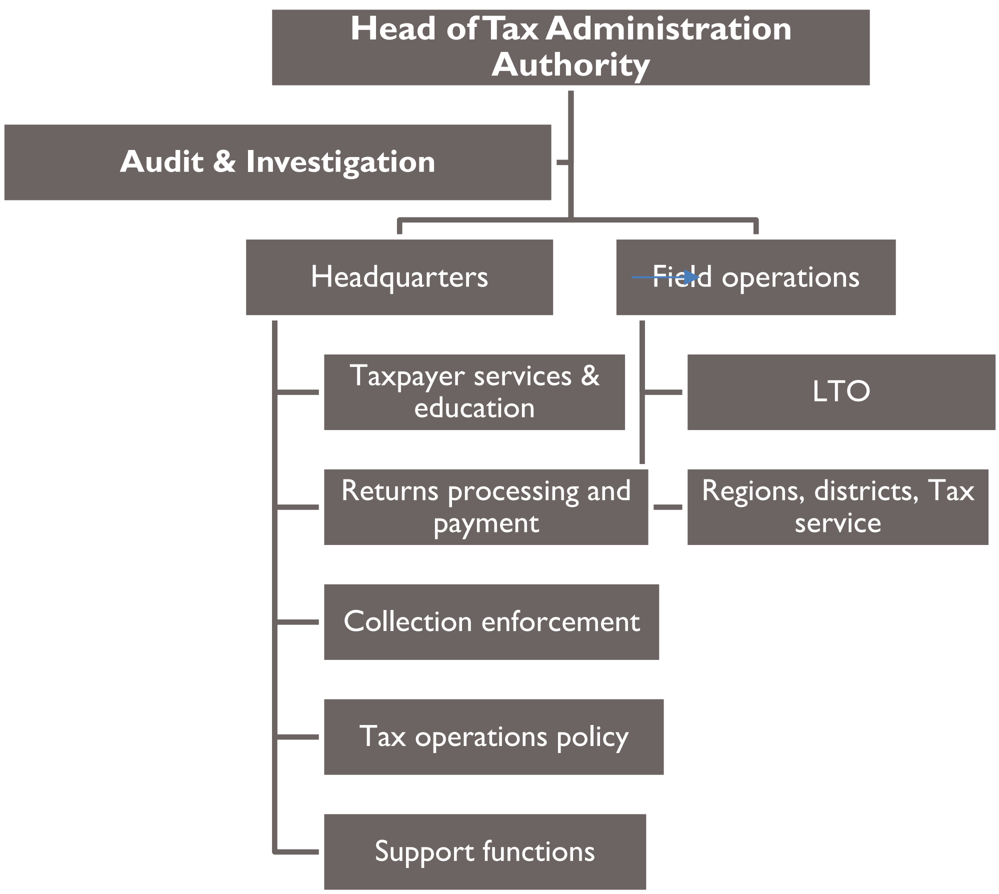
The proposed organizational chart includes a distinct structural unit overseeing **field operations** and delivery. This reporting cone may be managed through a single individual who reports directly to the Head of the Tax Authority, under the overall direction and guidance of headquarters. The field units are directly responsible for program delivery activities.

The Field office staff will execute the annual work plans developed by headquarters and perform the operational activities in terms of auditing, collection, fraud investigation, and customer service activities. At the same time, headquarters staff should never perform direct operations such as audits or interact with taxpayers on the selected case. This could be detrimental to the overall success of the tax administration system; since it would interfere with specialized serve provision principles and could compromise core accountability and transparency goals.

Moreover, based on the new structure, staff will be centralized rather than fragmented into small clusters at numerous locations, enabling efficient and transparent conduct of core tax administration oversight activities. At the same time, to ensure adequate provision of coverage in remote areas, technical staff will be assigned to travel periodically from central locations to remote sites to perform audit activities if/as needed.

ERLP experts included relevant matrix management features as well in the new functionally-based organizational structure. Thus, while managers based in headquarters will have a vertical reporting relationship through the hierarchical structure back to the Head of the organization, they will also carry functional responsibilities covering delivery of these same services in the field. Accordingly, a manager will have direct oversight of the units reporting vertically to the head office and functional oversight of the overall work plan, work objectives, and targeted results expected from the field operations. Equally, a field manager will have a direct reporting relationship within the vertical hierarchy and take functional directions from the group of headquarters-based managers across a wide range of specialized tax compliance service areas delivered in the field.

Chart 2: Proposed Organizational Structure for the Tax Administration Authority



5. THE MAJOR PILLARS OF THE FUNCTIONALLY-BASED ORGANIZATIONAL STRUCTURE

In a functionally-based organizational structure, the tax administration system organizes its work along with core functional areas, essentially as follows:

- **Taxpayer registration:** This unit handles the collection, recording, and maintenance of basic taxpayer identification information within the authority's master database
- **Taxpayer services and education:** This unit provides the necessary information, forms, and publications about taxpayers
- **Filing and processing tax declarations and tax payments:** This unit processes all tax payment and return forms designed by the tax administration system for taxpayers to file their tax returns and comply with their tax liabilities according to pre-defined timeframes.
- **Taxpayer audit:** This unit formulates the national audit strategy and procedures relating to single-issue auditing and standard auditing procedures & activities.
- **Administrative appeals:** This unit provides an initial outlet for administrative disputes. If these cannot be resolved amicably, the dispute is 'kicked out' through a 2nd stage tribunal appeal process.
- **Tax Collections:** This unit oversees the workflow relating to tax collection and assesses cumulative arrears. It also provides recommendations regarding estimated violations/penalties according to existing tax law and its related enforcement provisions.
- **Tax fraud investigations:** This unit identifies and follows up on suspected tax evasion/fraud cases.
- **Tax operations:** This unit establishes the operational policy framework for all tax instruments and tax processing activities.

It is worth noting that each of these functions should be represented in the organizational structure at headquarters.

HEADQUARTERS AND REGIONAL OFFICES

As highlighted earlier, the functionally-based structure proposed by ERLP should be anchored by a strong **headquarters-based supervisory department** that sets the overall policy framework and planning process and provides planning, support, and normative guidance for all field operations. The headquarters supervisory department should, in this regard, carry out the following core responsibilities:

- Preparing strategic plans;
- Preparing an annual national work plan specifying expected work targets, services to be delivered, budget requirements, enforcement mechanisms, and staffing levels across each function, project, or initiative;
- Monitoring, evaluating, and reporting national performance outcomes against the approved work plan, assessing performance and recommending adequate corrective actions as needed;
- Designing and maintaining standardized processes, norms, and policies, and generating core related policy and administrative documentation (manuals, circulars, etc.);
- Providing advice and guidance to field operational units, as required;
- Developing relevant performance standards/criteria for compliance functions;
- Determining human resource needs related to recruitment, training, and allocation of personnel;
- Drafting budgets and allocating the required financial resources across Tax Authority units.

The headquarters will also include six supporting units for (i) Human resources; (ii) Finance, Budgeting and Resource Management; (iii) Strategic Operations Planning; (iv) Information Technology; (v) Internal Audit and (vi) Legal Services.

FIELD OPERATIONS

The proposed organizational structure organizes field operations by specific segments of the taxpayer population (Large, Medium, and Small): Offices structured in this manner provide a complete range of tax administration functions, but with a focus that is geared particularly towards the specific needs and compliance challenges of the taxpayer segment in question. Some functions, like returns and payment processing, may provide shared services across the various tax segments to maximize economies of scale. These shared functions can also be concentrated in a few locations where there are sufficient numbers of registered taxpayers.

The distinct supervisory department for **field operations** and delivery proposed in the new chart can be managed by a single director who reports directly to the Head of the Tax Authority. Under the overall direction and guidance of headquarters, the field operations department should be responsible for program delivery and execution of the annual work plan developed by the headquarters office. In so doing, it should carry out all core operational functions associated with the Tax Authority.

It should be noted that the staff of field offices, including auditors, collection officers, fraud investigators, and customer service specialists, represent the central Tax Authority exclusively (i.e., they maintain a specialized focus on tax administration issues). They engage with taxpayers to provide information and assistance, perform audit assignments, enforce compliance, collect tax arrears, and investigate possible tax fraud or evasion cases.

Staff of headquarter offices should never perform direct operations - such as audits - or become involved with taxpayers on selected cases. Mixing management and operational functions have consistently proved to be detrimental to the overall success of a sound tax administration framework/system. This fundamentally relates to the fact that the creation of overlapping administrative oversight functions inevitably creates confusion for taxpayers and tax administration staff across all levels while potentially promoting rent-seeking behavior and compromises staff accountability.

6. TAXPAYER SEGMENTATION

The proposed segmentation strategy establishes a Large Taxpayer Office (LTO) program to provide services to large taxpayers, who collectively account for 60-75 percent of the government's overall tax revenue each year. Selecting large taxpayers In Yemen must be determined using relevant composite factors, including the value of assets, gross/net income, and the magnitude of tax liabilities. Other key parameters may also be considered, such as the volume of sales and amount of tax paid over the last two years; the value of total assets based on the most recent financial statements; the total payroll; and the number of employees and the nature of the business (e.g., financial services, telecommunications, mining, etc.).

7. MONITORING & PERFORMANCE MEASUREMENT

As described in Chart 2, all directors/heads of departments should directly report to the Head of the Tax Authority, based on the revised structure. At the same time, activities performed at the headquarters are distinct from those performed in-field operation offices. Monitoring and evaluation can be reinforced through the following core measures:

HEADQUARTERS:

Based on the functional organization chart, staff located at the headquarters monitor the overall activities of the Tax Administration Authority and are responsible for formulating the national strategy, designing reform initiatives, and evaluating results.

FIELD OPERATION UNITS:

Lead the field operation offices and receive guidance from and report directly to the Head of Tax Administration Authority. The Head of the Authority may also decide to designate an intermediate director to whom the field managers may report.

DISTRIBUTION OF STAFF

Recent OECD research shows that larger economies such as Australia, Canada, and the United States tend to have a relatively greater number of staff assigned to headquarters (See table 1)

Table 1. Distribution of staff across the Tax Administration Systems in OECD Countries

Country	Headquarters	Regional offices	Local/ branch offices	National data processing centers	Call centers	Other offices	All offices – Total
OECD countries							
Australia	2 927	16 189	80	-	1 010	42	20 248
Canada	8 897	121	20 053	6 823	2 278	-	38 172 /1
France	1 771	9 211	50 367	2 485	571	2 559	66 964 /1
Turkey	1 041	10 134	40 060	-	134	-	51 369
United Kingdom	1 600	-	40 676	2 777	19 392	375	64 820 /1
United States	4 072	10 896	43 444	11 164	17 401	-	86 977
Non-OECD countries							
Cyprus	168	601	-	5	-	8	782 /1
Morocco	561	2 966	1 020	174	14	-	4 735
Saudi Arabia	537		1061	-	-	-	1 598

Source: Tax Administration 2015 survey responses.

At the same time, the IMF proposes the following guidelines for distributing staff across the different functions of the Tax Administration Authority (see Table 2).

Table 2. IMF Guidelines for the Distribution of Staff across Functions

Headquarters function	%
Taxpayer service and registration	15-20
Processing and payment	10-15
Audit	25-30
Collections enforcement	15-20
Large taxpayers	8-10
Support services	10-15

Source: IMF

PREREQUISITES FOR SUCCESS IN A FUNCTION-BASED ORGANIZATIONAL STRUCTURE

The success of this model will require strong senior management skills and a firm commitment to a matrix management model, where field offices report vertically and functionally to more than one supervisor. Dual accountability and reporting relationships are key characteristics of a functionally-based tax administration framework.

CLARITY, STANDARDS, AUTHORITY, AND COMPLIANCE

- **Clarity:** A clear accountability structure must be developed along with the functionally-based organizational chart.
- **Standards:** Comprehensive and effectively articulated policies, processes, and expectations are critical and should be operationalized through both formalized and On-The-Job training.
- **Authority:** The chain of authority must be well-defined along with the vertical and horizontal (functional) structure.
- **Compliance:** The headquarters office should provide rigorous performance measurement and compliance tools.

DELEGATION OF AUTHORITY

Functional organizations have a strong, vertical chain of command. Field Office Directors report to their respective Regional Director, who reports to the Head of the Tax Authority. However, Field Office Directors and their staff are also required to receive and accept technical work assistance and guidance for their respective functions from Headquarters, particularly regarding audit and collection activities.

In the case of Yemen, tax officials in the headquarters, regional, and field offices should be given sufficient authority by law - and delegated by the Head of the YTA - to carry out technical and administrative decisions with a high level of independence while being held fully accountable for their performance.

In fact, modern functional tax administration systems rely heavily on a structure of cascading delegations of authority. Without an appropriate delegation of authority, work piles up as personnel await decisions from successive, higher-level officials, stifling productivity and breeding frustration among staff and taxpayers alike.

In the traditional chain of command, authority is granted by the law to the Minister of Finance and/or the Head of Tax Authority to perform all necessary duties to execute all their responsibilities in accordance with the tax law. The Head of the Tax authority is equally authorized by law to delegate authority to his or her Deputy Directors in the headquarters, Regional Directors, and Field Office Directors. In turn, Field Office Directors similarly grant the delegation of authority to the Division managers and assistant senior managers, who then can delegate authority to their subordinate staff of managers and supervisors.

Finally, managers and supervisors can delegate sufficient authority to their trusted technical staff to take necessary decisions in relation to ongoing work operations.

RESPONSIBILITIES OF THE HEAD, MANAGERS, AND INTERNAL AUDITORS OF THE TAX ADMINISTRATION SYSTEM:

THE HEAD OF THE TAX AUTHORITY

According to the revised organizational structure, the Head of the Tax Authority will undertake the following tasks:

- Supervise the workflow in the headquarters and regional offices
- Oversee developments of tax administration regulatory reform proposals and draft the necessary amendments to tax regulations
- Supervise the development of the annual strategic plan of the Tax Authority.
- Represent the tax authority in the management of foreign relations, and lead the negotiations relating to international and bilateral tax treaties and agreements
- Revise and approve periodic reports compiling tax statistics
- Decide on further appeal of administrative tribunal determinations
- Approve audit standards and toolkits
- Authorize hiring of new employees and promotion of existing employees base on application of sound performance standard

HEADQUARTERS DIRECTOR

The headquarters director oversees planning and follow-up activities in the areas of international affairs, taxpayer services, tax collection, tax compliance, procedures, and information technology. This includes the following activities:

- Preparing evaluation reports in coordination with the field operations director;
- Supporting the implementation of tax administration guidelines and providing relevant guidance;
- Supervising the preparation of the annual work plans, audit programs, and statistics;
- Proposing new executive programs to improve core business processes;
- Providing feedback on the draft of new laws, decrees, and executive texts;
- Proposing adjustments to the tax administration regulatory/procedural framework if/as needed

FIELD OPERATIONS DIRECTOR

The field operations director is charged with the following core tasks:

- Supervise the field office and prepare reports for the Head of the Tax Authority.
- Evaluate the performance of the field offices based on instructions received from headquarters.
- Manage and coordinate all business processes relating to tax collection activities

AUDIT AND INVESTIGATION DIRECTOR

The Audit and Investigation Director should undertake the following core tasks

- Evaluate the effectiveness and efficiency of the major tax administration processes and procedures carried out across the Tax Authority;

- Ensure that each department continues to adhere to extant tax regulatory guidelines and procedures;
- Monitor the overall performance of staff at the headquarters and in the field offices;
- Provide recommendations on proposed amendments to tax administrative procedures and operations;
- Measure the level of compliance with the established tax policies and procedures;
- Verify the quality of audit programs;

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ANNEX 23

REGULATORY/OPERATIONAL GUIDELINES PREPARED FOR PURPOSES OF ESTABLISHING A BETTER PRACTICE COMPLIANT BUDGETARY POLICY/PROCEDURAL FRAMEWORK

March 2021

Prepared for the United States Agency for International Development, USAID Order # 72027920M00001

USAID/Yemen - Economic Recovery & Livelihoods Program (ERLP)

The Pragma Corporation, 116 East Broad Street, Falls Church, VA 22046

BACKGROUND

Building on the work conducted by ERLP in Q1, ERLP experts reviewed the budgetary guidelines that MOF applied and developed a comprehensive framework establishing better-practice compliant budgetary policies and procedures, which MOF agreed to endorse during the preparation process for the CY2022 budget. This budget planning/presentational framework is structured as follows:

- Introduction: Includes the macroeconomic and macro-fiscal objectives the CY2022 budget aims to achieve.
- Section 1: Includes the economic, monetary, and fiscal assumptions for the CY2022 budget.
- Section 2: Lists the fiscal objectives of the CY2022 budget, including revenue estimation objectives and budget planning objectives.
- Section 3: Includes the fundamental budget prioritization approaches applied by MOF through the CY2022 budget planning process, including introducing the Medium-Term Expenditure Framework (MTEF) and its immediate implementation in the education and healthcare sectors.
- Section 4: Includes the general rules for preparing the CY2022 state budget draft. These rules are based on relevant laws, executive decrees, and MOF decrees, covering the revenue and expenditure sides of the budget at the central and the local levels.
- Section 5: Defines the Risk Assessment Parameters of Fiscal Policy

The proposed structure will help improve budget planning processes based on better-practice guidelines and enable MOF to proceed with CY2021 budgetary projection in a more structured and transparent way. This framework was thoroughly discussed and approved by senior MOF officials during a work mission conducted in Cairo on 6-12 April 2021. The different components of this framework are discussed hereafter:

INTRODUCTION

The introduction section defines key macroeconomic and macro-fiscal objectives, including the targeted GDP growth rate, fiscal balance, and ratio of public debt as a percentage of GDP. It also provides a thorough analysis of the impact of the pandemic-related global recession on the Yemeni economy due to the drop in oil prices, disruption of trade, and loss in foreign remittances. This section also reviews the level of unemployment in the country and assesses the distributional impact of unemployment based on gender and geography.

Moreover, the introduction section sets the economic context and defines the government priorities for CY2022 budget allocation. It also lists the performance-based parameters which should be used to review progress, especially in the critical sectors of healthcare and education.

Additionally, this section clearly defines the macro-fiscal objectives of the government, including the targeted fiscal balance and the acceptable level of inflation.

SECTION 1: ECONOMIC, MONETARY, AND FISCAL ASSUMPTIONS FOR THE PROJECTION OF CY2022 BUDGET

This section incorporates the macroeconomic assumptions for CY2022 budgetary projections (coordinated with the CBY Monetary Research Dept.), which cover the following:

- Targeted Economic Growth (GDP)

- Expected Annual Inflation Rate
- Average Interest Rate on Treasury Bills
- Average Exchange Rate
- Updated Customs' Exchange Rate
- Average Oil Price
- Expected Cost of Imports of Essential Goods
- Expected Increase in Total Revenue as a Percentage of GDP
- Targeted Primary Fiscal Balance/Budget Deficit
- Targeted Ratio of Public Debt as a percentage of GDP
- Targeted Expenditures For Emergency Crisis (e.g., COVID-19)

SECTION 2: FISCAL OBJECTIVES BASED ON CY2022 BUDGET

This section targets the detailed fiscal objectives of the Yemeni government in terms of revenues, expenditure, and targeted fiscal balance.

FISCAL OBJECTIVES FOR MAXIMIZATION OF REVENUES

- Introducing a simple tax plan for micro, small and medium enterprises to expand the tax base and promote the integration of the informal sector into the formal economy
- Introducing a full-fledged VAT structure
- Streamlining tax administration processes and upgrading the existing information technology infrastructure to facilitate enhanced filing and tax collection procedures.
- Developing a medium-term tax revenue strategy based on rigorous estimation techniques
- Expanding core administrative reforms for the customs' system
- Reviewing public service & utility cost and pricing policy

FISCAL OBJECTIVES FOR RATIONALIZATION OF EXPENDITURES

- Streamlining procurement procedures and improving transparency in public procurement transactions
- Linking expenditure priorities to socio-economic objectives in terms of social equality and job creation, with a special focus on relatively under-developed areas of the country
- Introducing necessary reforms of the energy subsidy regime to reduce/eliminate price distortions
- Allocating adequate resources to socio-economic stabilization initiatives, well-designed poverty reduction schemes, and the medical insurance system

FISCAL OBJECTIVES AIMING AT REGULATING THE BUDGET DEFICIT

- Rationalizing public expenditures to limit the budget deficit
- Defining a reasonable target ratio for total public debt as a percentage of GDP

SECTION 3: FUNDAMENTAL BUDGET PRIORITIZATION APPROACHES TO BE ADOPTED BY MOF

In this regard, ERLP presented to MOF a number of critical policy reform initiatives designed to improve the budget preparation and execution process; including the following examples:

- Using the healthcare and education sectors as 'pilot sectors' for the implementation of MTEF

- Revising the existing budget classification system and generating a new GFS compliant classification manual
- Integrating performance-based budgeting techniques within the budget planning framework

SECTION 4: GENERAL RULES FOR THE PREPARATION OF CY2022 BUDGET DRAFT

This section provides a thorough review of the laws, regulations, rules, and procedures relating to budget preparation and implementation; including the following:

- A comprehensive review of all laws, presidential decrees, and executive regulations relating to budget preparation and implementation
- An assessment of the macroeconomic parameters followed by the government to prepare the budget draft; including the average exchange rate and targeted inflation ceiling
- A thorough review of the list of rules and procedures applicable to local authorities in Yemen

SECTION 5: DEVELOPING DETAILED RULES FOR ESTIMATING KEY ITEMS ON THE REVENUE AND EXPENDITURE SIDES OF THE BUDGET

This section covers the following:

- Drafting the necessary guidelines for budgetary allocation of wages and compensations based on close coordination between MOF and the Ministry of Civil Service. These guidelines are based on detailed information on the number of permanent and part-time employees, new hiring, promotions, and detachment of staff.
- Providing clear and transparent guidelines for the procurement of goods and services. These guidelines should also apply to current expenses, such as the maintenance of public vehicles, purchase of stationery and printed material, payment of utility costs (e.g., water and electricity), and communication costs.
- Developing a clear set of rules for the repayment of installments and interests relating to domestic and external loans; along with a detailed time-framed payment schedule
- Defining clear rules for allocating targeted subsidies and social grants and social subsidies for food, energy, and social services.

SECTION 6: RISK ASSESSMENT PARAMETERS FOR FISCAL POLICY

This section sets the necessary guidelines for a comprehensive risk assessment protocol covering the following:

- Change in the economic assumptions used in the CY2022 budget projections
- Revision of budget allocations according to the updated position of the treasury, and the monthly cash forecasting plan
- Change in legislation that may affect budget allocations and/or the overall budget planning process

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ECONOMIC RECOVERY & LIVELIHOODS PROGRAM (ERLP) - YEMEN

ANNEX 24

BUDGET EXECUTION REFORM ACTION PLAN

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USAID/Yemen - Economic Recovery & Livelihoods Program (ERLP)

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LIST OF ACRONYMS

CBY	Central Bank of Yemen
CMU	Cash Management Unit
DMFAS	Debt Management & Financial Analysis System
GFS	Government Finance Statistics
GGA	General Government Account
JCMT	Joint Committee for the Management of the Treasury
MOF	Ministry of Finance
MOPIC	Ministry of Planning and International Cooperation
SOE	State-Owned Enterprise
SU	Spending Units
USAID	United States Agency for International Development

I. INTRODUCTION

The existing political crisis in Yemen has had a significant deleterious impact on Public Financial Management (PFM) practices. The present challenges include lack of coordination between the relevant entities, limited staffing levels and technical capacity at MOF, and deficient technical infrastructure and accounting processes. Most budgetary transactions are recorded manually or using basic Excel files.

The budget execution cycle skips a number of important steps, including the commitment control function. Budgetary allotments are essentially mapped out once a year when the budget law is approved by the Minister of Finance. The SUs send their expenditure plans to the Ministry of Planning and International Cooperation (MOPIC) and the Ministry of Finance (MOF). Subsequently, MOF sets the budgetary ceilings at 1/12 of the budget for chapters 1, 2, and 3. MOF releases cash allotments every quarter. Financial ceilings pertaining to chapters 3 and 4 are allocated on a case-by-case basis after obtaining written approval from the Minister of Finance.

Cash ceilings are formulated based on estimated revenues in the approved budget. No additional updates are made to those ceilings to reflect the actual collection of revenues during the year. This mismatch between budget allocation and cash flow forecasting, coupled with the absence of the commitment control function in the budgetary execution cycle, results in an extensive accumulation of arrears triggered by the defaulted checks.

In summary, the fundamental shortcomings in the budget execution cycle in Yemen can be summarized in the five following points, which are the core focus of this action plan:

1. Budget Execution Framework: There is no consolidated budgetary execution framework that integrates budgetary allotment and cash forecasting/management while linking these to commitment control and payment authorization & verification functions. The first step for any effective reform plan in the area of budget implementation must focus on developing a consolidated cash forecasting-based budgetary allotment/ceiling framework, which strengthens and consolidates the commitment control function and operates on an integrated basis between MOF and CBY.

2. Treasury Management: A fundamental core function of MOF, the management of the treasury, is being implemented by the CBY with little or no coordination with MOF. CBY does not have a timely reporting system to inform MOF about the updated position of the treasury account. As a result, the budget allotments designed by MOF do not reflect the actual position/balance of the treasury account. MOF sets budget allocations based on historical data (e.g., CY 2014 budget), in addition to initial information on total revenues received in the preceding quarter. The absence of an efficient treasury management structure, in addition to the lack of effective commitment control processes, effectively increases the risk of accumulation of arrears.

3. Absence of Cashflow Forecasting Mechanism: Neither CBY nor MOF has a cashflow forecasting unit to assess the actual position of the treasury and develop the related cash flow projections. Thus, there is no month-to-month cash planning, and the budget allotments are not allocated or revised based on actual cash forecasting. The lack of an efficient cash forecasting mechanism at CBY/MOF exacerbates the accumulation of arrears since budget execution is not tied to a reliable cash forecasting framework. The Debt Management and Financial Analysis System (DMFAS), a comprehensive debt tracking/reporting system that was active pre-2014 in Sanaa, represents a clear example of how budget management processes and systems have deteriorated – in this instance because

MOF lost access to an important source of information on outstanding loans and debt service, since its relocation in Aden.

Additionally, almost all budget execution operations are done manually by a limited number of staff at MOF who perform basic data entry using Excel. Manual processes increase operational risks and cause delays in reporting. Moreover, the budget classification code used by MOF does not follow the IMF's Government Finance Statistics (GFS) standards.

Restoring the accounting and information systems at MOF is a vital step to enable MOF staff to monitor and control the budget execution cycle. Once MoF is once again able to compile information on revenues and expenditures, MOF staff will be able to i) **provide monthly statements on the consolidated balance of revenues and expenditures**; ii) **detect the potential shortfalls in budget limits as they arise**; iii) **track and monitor the budget execution stages every month**, and iv) **regularly update the bank account balances and perform necessary reconciliations**.

II. SCOPE OF THE ACTION PLAN

The scope of the Action Plan draws on the above gap-analysis discussion. The action plan focuses on the consolidation of the budget execution cycle and reintegration of the commitment control function, developing a cashflow-forecasting mechanism to assist CBY and MOF in streamlining the budget execution process, reinforcing the joint effort between MOF & CBY on the management of the treasury -- through the development of a joint CBY/MOF committee -- and consolidating existing bank accounts to move towards an inclusive TSA structure gradually.

Additionally, the action plan also addresses other important aspects of enhancing the efficiency and time-effectiveness of core budget implementation functions. These include restructuring the budget execution department at MOF and streamlining the salary disbursement cycle for civil servants. (MOF, CBY, and MOPIC) through the *Joint Committee on Debt Management.*

III. REVAMPED BUDGETARY IMPLEMENTATION PROCEDURES

The recommended reform procedures are structured in five core policy areas, which are discussed in detail hereafter.

1. ENHANCING THE LEVEL OF COOPERATION BETWEEN MOF AND CBY THROUGH THE DEVELOPMENT OF A JOINT COMMITTEE FOR THE MANAGEMENT OF THE TREASURY

This is the first step towards creating a comprehensive framework for budget execution. The joint committee for the management of the treasury will act as a liaison point between MOF and CBY, based on a well-defined mandate to be approved by both counterparts, covering all work related to treasury management, cash forecasting, budget allocation & commitment control, and financial reporting. The initially proposed tasks to be covered by the work of the committee include, but are not limited to, the following:

- Conduct bi-weekly meetings to review and approve the cash forecasting plans, which will be jointly prepared by MOF and CBY.
- Assess the anticipated budget expenditures against the forecasted cash flow, and provide adjusted scenarios for the forecasted budget deficit on an annual, semi-annual, and quarterly basis. It is worth noting that the risk assessment of the cost of financing of the budget deficit and

the review of the available financing alternatives go beyond the scope of the joint committee for the management of the treasury and will be discussed within the debt management committee and in the presence of the three main counterparts (MOF, CBY, and MOPIC).

- Conduct monthly meetings in collaboration with the debt management committee team to review the scheduled debt repayment plan and ensure that debt service and debt arrears are integrated into the cashflow forecasting plan.

TASKS AND RESPONSIBILITIES PERTAINING TO THE CBY

- Assessing the possibility of seconding two or three senior staff from CBY to MOF for an initial period of three months to train MOF staff on all activities relating to the management of the treasury.

- Providing training to MOF staff on the configurations of the financial information system available at CBY, how to run simple analyses using the system, and how to extract, monitor, and assess cash flow reports daily.
- Installing read-only access to the financial information system at the MOF allows the MOF team to extract and review the available data on the treasury position daily. This is a crucial step that will facilitate the reintegration of the commitment control function in the budget execution cycle since the MOF team will be able to assess the treasury position (daily) before issuing financial notifications (the commitment order). MOF can now develop its own treasury assessment portfolio on a daily, weekly, and monthly basis.
- CBY will develop a game plan for the consolidation of the large number of bank accounts that are associated with the existing 600 spending units in collaboration with MOF. Additionally, CBY and MOF will work on the gradual transition towards a full-fledged TSA system.

TASKS AND RESPONSIBILITIES PERTAINING TO MOF

- MOF will nominate a dedicated team to work on treasury management and cash flow forecasting and represent the Ministry in committee meetings.
- This team will provide the CBY staff with all necessary information covering the status of the cash ceilings and financial notifications (financial commitments) after reviewing the Quarterly Cash Management Plan (which will be discussed in detail in point 3).
- The nominated team will also receive the technical training provided by CBY and should be able by the end of this training to navigate through the financial information system available at CBY (once MOF gains reader access to the system).
- This dedicated team will also be in direct contact with the MOF offices outside Aden and with the 600 SUs to ensure that the exchange of information is taking place on a regular basis and that the CBY gets informed with the updated information regularly.

2. DEVELOPING A CASH MANAGEMENT UNIT (CMU) AT MOF TO WORK CLOSELY WITH CBY THROUGH THE JOINT COMMITTEE FOR THE MANAGEMENT OF THE TREASURY

- The CMU will oversee the work relating to cash planning and cash flow forecasting. Based on the information provided by CBY on the updated position of the treasury, MOF's CMU will work in close collaboration with CBY through the joint committee to provide monthly reports on the cash flow forecasting outlook. **These reports will become the core reference for MOF to update/revise the upcoming budget allotments on a quarterly basis and to consolidate the commitment control function in the budget cycle (through review**

of the updated cashflow position before signing-off additional financial commitments).

- The CMU/MOF will also provide monthly reports, including analyzing the forecasted revenues, expenditures, and cash balance position. These analyses will enable MOF to prepare a cash management plan, considering the risk associated with unforeseen expenditures.
- The starting point should be an Annual Cashflow Forecasting Plan, prepared in advance of the fiscal year, setting out projected cash inflows and outflows monthly. Once the annual plan is established, it should become the basis for rolling three-month projections (Quarterly Cash Management Plan). Within that projection an Operational Cash Management Plan for the month ahead.
- The principal components of the Annual Cash Forecasting Plan will be formulated based on the following:
    - Historical data will help to establish month-to-month inflow forecasts of tax and nontax revenues. A provisional estimate of external loans and grants will be considered. Data on external loans and grants will be provided through the debt management committee and updated on a monthly basis. Historical data on expenditures will help to forecast cash outflows each month.
    - While historical data are the main reference to help to establish patterns of cash inflows/outflows, other irregular events should also be considered. For example, occasional variations in the timing of donor grant receipts and the precise timing of new borrowing are likely to alter the initial projections for cash inflows. Also, unforeseen expenditures (e.g., increased healthcare expenditures due to the COVID-19 pandemic crisis) must be considered as these will alter the projections on cash outflows.
- The cash forecasting instruments will help to streamline PFM more generally. Practically, the revised budget execution cycle will proceed as follows, after integrating the cash forecasting instruments:
    - Each SU will have to prepare an expenditure plan at the start of the year consistent with the approved annual budget. Each SU will also prepare a revised operational expenditure plan every three months. MOF will review the quarterly update expenditure plans presented by the SUs before updating the budget allotments every three months.
    - MOF will prepare the annual budget allotments at the start of the year based on the approved budget, along with an Annual Cash Forecasting Plan (the newly established cash management instrument). Every three months, the CMU at MOF will update the Quarterly Cash Management Plan, which will help MOF conducting the quarterly revision and update of cash allotments more realistically (since this revision will be based on the actual cash flow position).
    - If it appears from the initial projections that there may be no enough cash available - within a given quarter - to cover due to expenditures, MOF can try to delay some of the planned expenditure commitments; MOF should revert back to the SU to discuss and reprioritize the provisions listed in the Quarterly Expenditure Plan, in view of existing/anticipated cash limitations. Recommended adjustments for expenditure categories with "Immediate Entitlement" status would require approval by the inter-ministerial Budget Committee, while adjustments to other categories would be subject to review and reprioritization in consultation with the relevant SU (See Table 1).

Table 1. Expenditures' Prioritization Guidelines, Based on Cash Availability/Limitation

Budget Chapter	Budget Chapters	Nature of Expenditure	MoF-CBY Cash Coordination Arrangement
Chapter 1: Wages and Employees Compensations	Sub-Chapter 1: Wages and Salaries	Immediate Entitlement	Yearly
	Sub-Chapter 2: Social Contributions	Immediate Entitlement	Yearly
Chapter 2: Expenditure on Goods and Services	Sub-Chapter 1: Goods and Services	Subject to change based on cash availability	Quarterly
	Sub-Chapter 2: Maintenance	Subject to change based on cash availability	Quarterly
	Sub-Chapter 3: Interest Payment	Immediate Entitlement	Yearly
	Sub-Chapter 4: Fixed Capital Consumption	Subject to change based on cash availability	Quarterly
	Sub-Chapter 5: Expenditure on Government Properties	Subject to change based on cash availability	Quarterly
Chapter 3: Social Subsidies, Grants, and Benefits	Sub-Chapter 1: Financial Subsidies	Immediate Entitlement	Yearly
	Sub-Chapter 2: Grants	Subject to change based on cash availability	Quarterly
	Chapter 3: Social Benefits	Immediate Entitlement	Yearly
	Sub-Chapter 4: Financial Transfers	Subject to change based on cash availability	Quarterly
Chapter 4: Non-Financial Assets' Acquisitions	Sub-Chapter (1): Fixed Assets Acquisition	Subject to change based on cash availability	Quarterly
	Sub-Chapter (2): Inventories Acquisition	Subject to change based on cash availability	Quarterly
	Sub-Chapter (3): Non-Productive Assets Acquisition	Subject to change based on cash availability	Quarterly
Chapter 5: Financial Assets Acquisitions and Liabilities Repayment	Sub-Chapter (1): Domestic Borrowing and Domestic Financial Assets Acquisition	Subject to change based on cash availability	Quarterly
	Sub-Chapter (2): International Borrowing and International Financial Assets Acquisition	Subject to change based on cash availability	Quarterly
	Sub-Chapter (3): Domestic Loans Repayment and Local Securities Acquisition	Immediate Entitlement	Yearly
	Sub-Chapter (4): International Loans Repayment and International Securities Acquisition	Immediate Entitlement	Yearly
Unclassified Expenditures		Subject to change based on cash availability	Quarterly

TASKS AND RESPONSIBILITIES PERTAINING TO MOF

- MOF will establish the cash management unit, which will include two middle-management staff and two to three analysts. ERLP fiscal experts will provide a thorough capacity-building program to train CMU staff on cash management and cash flow forecasting activities.
- ERLP fiscal experts will help the CMU team develop a sound and comprehensive cash management framework to make accurate cash flow forecasts. As highlighted earlier, the cash

management framework will enable MOF/CMU team to start with the Annual Cashflow Forecasting Plan and then derive the Quarterly Cash Management plan.

- With the assistance of ERLP fiscal experts, MOF/CMU team will prepare all necessary templates and tabulation sheets relating to the monthly assessment of the cash position, the Annual Cash Forecasting Plan, and the quarterly Cash Management plan. ERLP information technology experts will also assist MOF and CBY to upgrade further the existing financial information system, which will allow MOF to generate and update these templates electronically regularly.

3. RESTORING THE MISSING COMMITMENT CONTROL PHASE IN THE BUDGET CYCLE

An efficient budget execution process is divided into four phases: i) Budgetary Allotment, ii) Pre-Commitment/Commitment (an administrative reservation of funds in anticipation of their use), iii) Payment Authorization/Verification, and iv) Accounting & Reporting. In Yemen, the budget execution cycle does not follow this standard pathway. It also greatly differs depending on the type of expenditures (current expenditure vs. capital expenditure) listed in the budget. This can be briefly summarized as follows:

Pre-Implementation Stage: Budgetary Planning/Approval Process. Each spending unit provides a financial plan to MOF before the start of the fiscal year, along with the requested estimate for the new year's budget. Then, MOF prepares the budget law, considering the financial information presented by each SU, existing data on the projected revenues, and available guidelines on the prioritization of spending.

Allotment. The Budget Department (BD) at MOF and its representatives in local governorates allocate financial ceilings to each spending unit. For chapters 1, 2, and 3 of the budget, financial ceilings for each monthly period are calculated on the basis of 1/12th of the full fiscal year allotment, and the monthly spending ceiling for each period cannot exceed that calculated amount. For chapters 4 and 5, financial ceilings are allocated after obtaining a clearance from the Minister of Finance.

For chapters 1, 2, and 3, financial ceilings are approved at the beginning of the fiscal year and reviewed again quarterly. However, financial ceilings for chapters 4 and 5 are assessed on a case-by-case basis. Each spending unit is notified of its financial ceilings once approved by MOF (the CBY also receives notification).

Pre-Commitment/Commitment. Based on approved financial ceilings, each spending unit starts issuing purchase orders to suppliers of goods & services. Before issuing the purchase order, the SU requests to obtain a financial authorization from MOF on a manual. MOF is responsible for comparing this amount against the approved financial ceilings, which are set at the start of the fiscal year and updated at the start of each quarter. MOF is mandated to provide financial authorization only if/when the requested amount does not exceed the financial ceiling. In practice, the manual processing of these requests places an enormous burden on the limited staffing resources of MOF, and financial authorizations are provided to the SUs on a virtually automatic basis. Once the financial authorization is obtained from MOF, the SU proceeds with its purchase order, and the CBY receives notification from MOF. While this stage represents the 'commitment' stage in the budget execution cycle, financial authorizations do not represent a real commitment since MOF has no access to the updated treasury position of CBY prior to providing these authorizations.

Payment Authorization/Verification. This process takes place at the level of each SU. All administrative work related to payments must be reviewed by the SU's financial controller (the payment process may be interrupted if the controller decides that the papers are incomplete). After review by the financial controller, the treasury department at the SU prints a bill of exchange with the amount approved, and the accounting department issues the check to the supplier. The check can be converted to cash or deposited in the beneficiary's bank account.

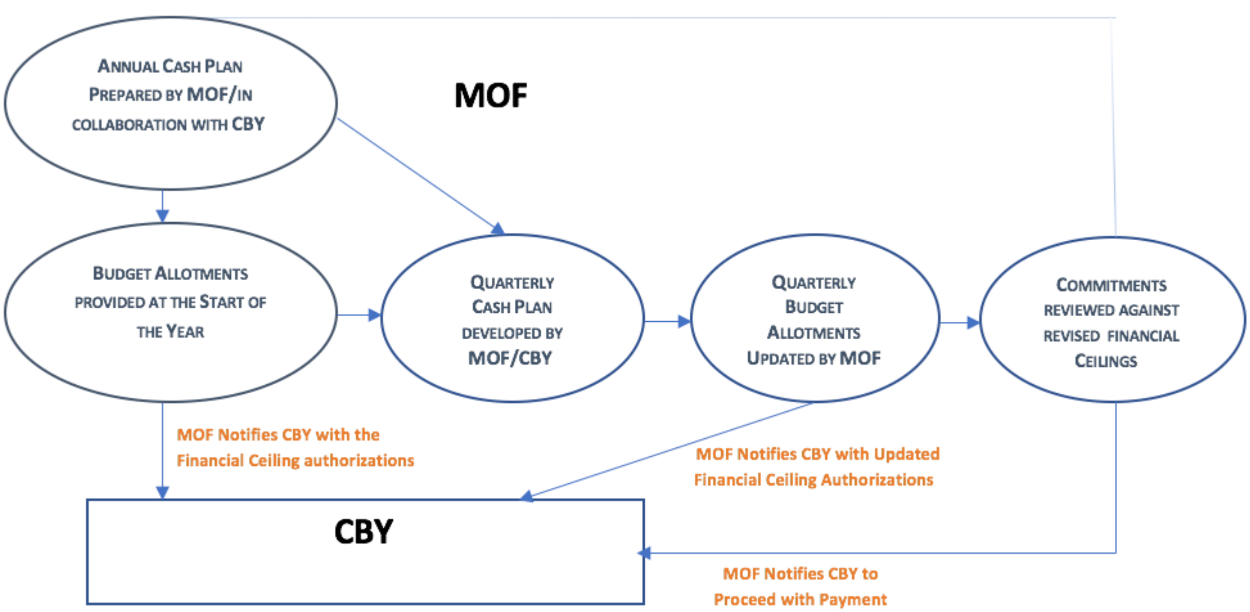
Accounting & Reporting. Each financial department in every SU sends its accounting report to MoF on a monthly, quarterly, and annual basis. While every ministry and public institution must submit the periodic financial report to the MOF, three entities have 'closed budgets,' and, therefore, are exempted from the submission of the report: The Ministry of Defense, Ministry of Interior, and National Security Agency.

One of the fundamental recommendations of this action plan relates to the reintegration of the commitment control function, which isn't fully articulated in the existing budget execution cycle; due fundamentally to the absence of a consistent commitment control review process within MOF and the related lack of integration between the pre-commitment/commitment function at MOF and the management of the treasury at the CBY (which MOF does not regularly review).

Based on this recommendation, MOF will rely on the updated Quarterly Cash Management Plan to review/revise the expenditure ceilings. This will help ensure that new commitments/financial authorizations are reflective of more accurate ceiling estimates. (See Chart 1).

If the revised financial ceilings do not indicate a sufficient balance to cover the upcoming financial commitments for the new quarter, MOF should, as referenced earlier, revert back to the SU to discuss and reprioritize the provisions listed in the Quarterly Expenditure Plan, in view of existing/anticipated cash limitations. This additional step will force MOF to thoroughly review the expenditure plans provided by each SU on a quarterly basis and apply thorough budgetary prioritization guidelines through the planning & execution process, which will help control the exacerbating financial arrears.

Figure 1. Reintegration of the Commitment Control within the Budget Execution Cycle



4. CONSOLIDATING THE BUDGETARY ACCOUNTS AND MOVING TOWARDS FULL-FLEDGED TSA

As explained earlier, there are 600 active spending units in Yemen and thousands of budgetary bank accounts at the CBY. The CBY uses transitional (statistical) accounts to record all withdrawals conducted by the SUs and collect all revenue receipts. These transitional accounts are used for accounting purposes only, then CBY transfers the balance to one consolidated account for revenues (Account n. 8001) and one consolidated account for expenditures (Account n.1001) by closing of the business day. These are then reflected in the General Government Account, which is updated at the end of each day to reflect a surplus or a deficit (Currently, the GGA deficit is estimated at YER 3 Trillion).

All expenditure/revenue transactions relating to chapters 1, 2, and 3 are completed by closing of business day, and the related balance is transferred to the GGA. About twenty percent of budgetary transactions, however, are not reflected in the GGA, including:

- All revenues/expenditures relating to transactions performed by State-Owned Enterprises (SOEs);
- All revenues/expenditures relating to transactions performed by National Development Funds. These funds are developed by the government and receive a portion of the government's total revenues, which is allocated to infrastructure projects, youth developmental projects, etc.

To sum up, the structure of budgetary accounts in Yemen is both fragmented and non-inclusive. The use of transitional accounts should be limited or eliminated. Additionally, the different accounts relating to the same functional classification categories of the budget should be merged.

A full-fledged TSA system, which covers all budgetary transactions, should be developed to cover the following accounts:

- The General Government Account
- SOE accounts
- National Development Funds' accounts
- Transitional accounts
- Other budgetary current accounts which are not covered by the GGA

The consolidation of the accounts and gradual transition towards a full-fledged TSA can be structured in two phases:

In the first phase, CBY will need to replace the existing transitional with a zero-balance account for each SU.

In the second phase, ERLP experts will assist the CBY team in assessing and filtering all active accounts within the banking system. Inactive accounts will be eliminated, and accounts under the same economic or functional classification line will be merged. For example, all accounts pertaining to the education sector (e.g., ministry of education, universities, schools, etc.) will be merged at the level of the central and local government.

This review process will be conducted in close collaboration between MOF and CBY through the joint committee for the management of the treasury. ERLP experts will facilitate the process through the provision of specialized technical and IT assistance.

Once this assessment is completed, a joint list of recommendation will be presented to CBY vice Governor and MOF Minister, including the following:

- The new map and structure of the consolidated accounts
- Detailed information on the accounts that have been merged (tree of accounts)
- Information on the accounts that need to be closed due to inactivity (their balances, if any, will be transferred to the General Government Account)

Accordingly, each SU will have a Zero-Balance Account at the CBY, and the overall number of budgetary expenditure bank accounts will be around 600 bank accounts.

5. UPGRADING THE EXISTING FINANCIAL DATABASE AVAILABLE AT CBY AND GRANTING READER ACCESS TO MOF

The CBY monitors the Public Government Account for the Ministry of Finance, using an automated system designed internally by the Central Bank with the assistance of a Jordanian company (Arabic Expert Centre). The system is based on Oracle ERP (using a GFS accounting approach), and it monitors and controls the financial ceilings and the Public Government Account.

This system documents the daily transactions of the General Government Account, recording the accounting entries (to, from, etc.) for cash payments and cash payment receipts daily. The General Government Account is updated in the system based on these transactions. This automated system exists only in the Central Bank and is not available to the MOF and other ministries. Furthermore, this system is not an integrated treasury system linking central and local government accounts.

ERLP experts will assist CBY in upgrading the system and help grant MOF reader access to the database to access the data and conduct the required analysis on a real-time basis. The database will be stored on a computing cloud so MOF/CBY staff can access it remotely, from anywhere.

The upgraded version of the database software will enable the following new functions, among others:

- Consolidating all revenue accounts based on the economic/functional budgetary classification and at the level of central and local governments.
- Consolidating all spending accounts, based on the economic/functional budgetary classification and at the level of central and local governments.
- Connecting CBY branches with the CBY head office on a real-time basis.
- Providing monthly, quarterly, and yearly cash forecasting plans.
- Providing advanced reports summarizing spending patterns and budgetary performance (actual spending versus cash plan).

ERLP experts will provide a comprehensive capacity-building program to the CBY on the upgraded functions of the system. Additionally, ERLP experts will train the MOF team to access the database and extract all reports relating to budget execution.

Two additional key policy areas are briefly highlighted below. While these do not represent the focus of debate in this paper, the discussion would be incomplete without highlighting their importance. The ERLP advisory team will develop a separate analysis/game-plan on the administrative reform requirements for the Budget Execution Department at MOF and a medium-term strategy for wage/bill reform/control in the public sector in Yemen.

6. RESTRUCTURING THE BUDGET EXECUTION DEPARTMENT AT MOF, AND UPGRADING THE BUDGETARY CLASSIFICATION ACCORDING TO GFSM 2014 STANDARDS

An efficient budget execution system should meet the three core objectives of a public expenditure management plan: Aggregate expenditure control, strategic resource allocation, and operational efficiency. Additionally, budget execution procedures should be appropriately balanced to avoid conflicts between these objectives.

As explained earlier, however, MOF lacks adequate human and technical resources to achieve this target optimally. The budget execution department at MOF is still at its early stages of development in terms of structure, capacity, and staffing. Reinforcing the structure and functions of the budget execution department at MOF is crucial, given the importance of the functions it must oversee in collaboration with CBY.

The ERLP advisory team will help MOF assess the existing capacity and structure of the budget execution department and develop a new organizational chart that streamlines the workflow of the budget execution cycle. The new structure would include five main divisions and three specialized units.

Initially, it is envisaged that the five core divisions could include: (i) Cash Management & Cash Forecasting Division; (ii) Treasury Management Division (including three subdivisions on revenue accounts, expenditure accounts, and the General Government Account); (iii) Payment Authorizations & Verification Division; (iv) Civil Servants Payroll Division; and (v) Debt Management Division. In addition, three specialized units will function as support units working across the five core divisions: i.) Accounting Unit, an ii.) Information Technology Unit and iii.) Financial Control Unit.

ERLP team will assist MOF in developing a comprehensive job description manual based on a revamped new organizational structure. The manual would also define the inter-relations between the budget execution department and other departments of MOF, line ministries and agencies, the CBY, and other relevant counterparts.

ERLP experts can also structure and deliver a comprehensive capacity-building program for the budget execution team at MOF and facilitate efficient knowledge transfer between CBY and the MOF team in the area of treasury and cash management.

Finally, the ERLP advisory team will also help the budget execution department to review the existing chart of accounts (COA), which is quite fragmented and partially inconsistent with GFSM 2001. The team will help MOF consolidate the chart of accounts based on the most recent GFSM standards.

7. STREAMLINING SALARY DISBURSEMENT FOR PUBLIC SECTOR EMPLOYEES

Wage and salary remuneration represent the bulk of Yemen's government budget (at least 60% of government expenditures are dedicated to chapter 1 of the budget). Therefore, it is crucially important to review and reform the existing mechanisms for wage-bill determination/disbursement in the public sector. The envisaged reform plan would cover three core pillars:

i) REVIEW OF THE EXISTING LISTS OF PUBLIC-SECTOR EMPLOYEES AND DEVELOPMENT OF A CONSOLIDATED DATABASE FOR CIVIL SERVANTS

Currently, salary disbursement takes place manually at a decentralized level. Each spending unit oversees its own salary disbursement cycle in the presence of an MOF representative (each SU has a detached/resident employee from MOF). The list of employees is prepared manually at the level of each SU, and problems of double-counted employees and/or ghost employees are very common.

The first step towards reforming public salary disbursement in Yemen starts with assessing the existing list of employees and developing a comprehensive (computerized) database for all reviewed employee lists. The database can be hosted at the Civil Service Ministry or the Ministry of Finance. It is important to consider the maintenance of this database is a work in progress; information should be refreshed and updated every month in collaboration with the SUs and the financial control unit at the budget execution department at MOF.

ii) ESTABLISHING AN EFFICIENT EMPLOYMENT VERIFICATION SYSTEM ASSIGNING EACH EMPLOYEE NAME ON THE DATABASE TO A VALID ID NUMBER

In this regard, MOF would collaborate with the Civil Service Ministry to develop and implement a sound employment verification strategy and system. This could, for instance, entail assigning each employee's name to a valid personal ID. It could also involve the application of biometric identification approaches. Progress in this direction will help to eliminate double-counted employees and ghost employees from the system.

iii) MOVING TOWARDS A DIGITALIZED SYSTEM FOR THE PAYMENT OF PUBLIC SALARIES

The digitalization of salary payment would render the disbursement process more efficient, transparent, and cost-effective. The digitalization of salary payment can be implemented in accordance with the following modalities: (i) direct deposit into bank account; (ii) prepaid card; or (iii) electronic wallet.

ERLP technical assistance experts anticipate working proactively with MOF, in coordination with CBY, to rapidly design and launch a short-term pilot test covering one or two institutions (e.g. the University of Aden and the Ministry of Education), which would employ one or more of the e-payment modalities described above.

The pilot would allow MOF and CBY to test the concept and address any deficiencies before expanding the project to cover other public sector institutions. The results of this short-term pilot would also be very useful for the wider interoperability pilot that is going to be launched soon in coordination with the CBY for the wider payment sector in Yemen.

This pilot exercise will help validate the following points:

- MOF has the necessary technical capabilities to disburse salaries electronically.
- Existing infrastructure in Yemen (SWIFT/ATMs/e-wallets) can easily be developed and expanded to cater to the new digital salary payment protocol.
- CBY can transfer salaries directly to commercial banks/e-wallets, easily and securely.

- The e-payment pilot is beneficial and can be expanded to cover additional public sector agencies/line ministries.

IV. PROVISIONAL TIMELINE

Below is a provisional timeline for the implementation of the recommended policies. It is worth noting that this paper represents a first draft of the proposed action plan, which will be discussed in detail with MOF and CBY. Based on the feedback obtained from both counterparts, the final draft will be completed.

Implementation Timeline	
15 March 2021	Drafting a policy paper defining the role and mandate of the Joint Committee for the Management of the Treasury (JCMT). The paper defines the level of representation in the committee and the frequency of the meetings
30 April 2021	Nominating key staff members from MOF/CBY to lead the discussions in the JCMT
1 June – 31 July 2021	Seconding 2/3 senior staff from CBY to MOF for an initial period of three months to train MOF staff on all activities relating to the management of the treasury
20 May 2021	Facilitating the first JCMT kick-off meeting and scheduling the upcoming meetings for each quarter of the year
Initiating the CMU Unit at MOF & Launching the New Cash Forecasting Instruments	
15 June 2021	Initiating the CMU Unit at MOF & assigning a dedicated team to work in the unit
30 May 2021	Setting the guidelines for the submission of the quarterly expenditure plan by the SUs and developing the required templates of the expenditure plan
15 June 2021	Setting the guidelines for the development of the Yearly Cash Forecasting Plan and developing the related electronic templates
15 June 2021	Setting the guidelines for the submission of the Quarterly Cash Management Plan and developing the related electronic templates
30 June 2021	Developing a timetable for the budget execution cycle, which includes provisional dates for the development of the Quarterly Cash Management Plan and the revision of budget allotments
15 July 2021	Setting the guidelines for the revision of the budget allotments, including the definition of the immediate entitlements and other types of expenditures which can be revised or postponed (see Table 1 for initial guidance)
1 – 31 July 2021	Providing comprehensive training to MOF/CMU on cashflow forecasting activities
15 December 2021	Developing the first Annual Cashflow Forecasting Plan for CY2022
Reintegration of the Commitment Control Function in the Budget Execution Cycle	
1 September 2021	Reintegration of the commitment control function in the budget execution cycle based on synchronization between payment authorization requests and the revised budget allotments based on the updated cash plan.
15 May 2021	Developing a game-plan to replace the existing transitional (statistical) accounts with a zero-balance account for each SU
30 June 2021	Assessing and filtering all active accounts within the banking system. Inactive accounts will be eliminated, and accounts under the same economic or functional classification line/category will be merged.
1 August 2021	Developing a new comprehensive map of the consolidated accounts (tree of accounts). Information will also be provided on closed/deactivated accounts.

Implementation Timeline	
1 September 2021	Linking/Consolidating all expenditure/revenue accounts at the CBY head office with the CBY local branches (currently, the accounts hosted by the head office and the local branches are not fully integrated).
1 May 2022	Moving towards a Full-Fledged TSA, with full consolidation of the budgetary accounts; including i) The General Government Account, ii) SOE's budgetary accounts, iii) National development funds' budgetary accounts, iv) transitional/statistical and other current accounts that are not covered by the GGA
Upgrading the Existing Financial Database Available at CBY and Granting Reader Access to MOF	
15 June 2021	Conducting a full assessment of the configuration and competence of the existing financial database.
30 August 2021	Gradually upgrading the configurations of the existing system to include new features on budget consolidation and cashflow forecasting.
30 September 2021	Providing training to CBY staff on the new features of the upgraded system.
30 September 2021	Granting reader access to MOF and training MOF staff on using the financial database.

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ECONOMIC RECOVERY AND LIVELIHOODS PROGRAM (ERLP) IN YEMEN

ANNEX 25

TECHNICAL REQUIREMENTS FOR EFFECTIVELY INTERLINKING CURRENT CBY TREASURY OPERATIONS TO THE GENERAL ADMINISTRATION FOR THE MANAGEMENT OF THE PUBLIC ACCOUNT (GAMPA) AT THE MOF

March 2021

Prepared for the United States Agency for International Development, USAID Order # 72027920M00001

USAID/Yemen - Economic Recovery & Livelihoods Program (ERLP)

The Pragma Corporation, 116 East Broad Street, Falls Church, VA 22046

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List of Acronyms

CBY	Central Bank of Yemen
CMU	Cash Management Unit
GFMIS	Government Financial Management Information System
GGA	General Government Account
MOF	Ministry of Finance
MOPIC	Ministry of Planning and International Cooperation
SU	Spending unit
TSA	Treasury single account
ZBA	Zero balance account

INTRODUCTION

The Central Bank of Yemen (CBY) manages the government treasury according to the provisions of Law No. 14 of 2000 on the Central Bank (hereinafter, the Law).

Granting the Ministry of Finance (MOF) broader responsibilities in managing the treasury would promote better coordination of macroeconomic policies. Furthermore, reforming the Treasury Single Account (TSA) arrangement is a top priority for the authorities.

LEGAL REQUIREMENTS

The Law outlines the relationship between the CBY and the MOF and further details an adequate framework for relations with the MOF - while allowing the entities the necessary flexibility to determine their approach to service delivery and the improvement in their relations. The Law establishes that:

1. The Central Bank shall be the bank of the government as well as its financial agent and adviser.
2. The Central Bank may serve as the bank and the financial agent of any public institution in accordance with agreements to this effect and with the institution concerned.

The responsibilities and authority of the CBY as the bank/financial agent of the government and/or a designated public institution per the Law are as follows:

A. Serve as the depository of the government and any designated public institution, receive deposits, and perform payment transactions on behalf of the government and the public institution.
B. Following consultation with the government and the institution concerned, designate another bank to act on its behalf in the abovementioned activities in locations where there is no CBY office or branch or where the bank deems that such arrangements would be more suitable.
C. Open and manage special official accounts in accordance with the arrangements agreed upon by the bank and the government or the designated institution concerned.
D. Exercise responsibilities on behalf of the government related to the public debt, including the issuance of bonds, payment of interest on such bonds, and the recovery of the value of loan securities and other government securities.
E. Buy, sell, transfer or take into safe keeping checks, drafts, or other instruments.
F. Collect any returns in the form of assets and associated interest resulting from the sale of securities or other possessions of the government or public institutions, payable to them.
G. Supervise, manage, and regulate the portfolio of government investment shares, and distribute profits at the end of the year.

The CBY may, upon agreement with the MOF, charge for services as a bank or a fiscal agent to the government and pay interest on the credit balances in the government accounts. The CBY may also pay interest on credit balances on the government accounts.

The CBY is generally prohibited from lending to the government except for emergency loans in exceptional circumstances. Such lending should be consistent with the objectives of CBY monetary policy objectives, and the outstanding loans to the government may not exceed 25 percent of the annual average revenue of the budget for three financial years, where accounts are available. Such revenue should exclude debt, aid, and other forms of financial assistance. The maturity date of emergency loans to the government shall not exceed six months. These restrictions apply to CBY purchases of government bonds unless such purchases are made to implement monetary policy.

CURRENT STRUCTURE

The CBY performs all services related to taking deposits, government revenue accounts, and processing payments from the expenditure accounts. In addition, the CBY enables a TSA arrangement for the government while further consolidation and reforms are still required.

THE STRUCTURE OF THE BANK ACCOUNTS

This section summarizes the current structure of government bank accounts at the CBY.

CENTRAL BANK HEADQUARTERS - ADEN

The CBY headquarters in Aden hosts the following accounts:

- Central government revenues accounts - All transactions in revenue sub-accounts[1] are posted to the General Revenue Account, including collections from provinces.
- *Dawaween* (line ministries headquarters) - These expenditure zero balance bank accounts (ZBAs) are exclusive to the capital jurisdiction of Aden.
- The General Government Account (GGA) - The treasury's main account posts the results of all cash transactions and reflects the government's cash position at the end of each day.

LOCAL BRANCHES OF THE CBY

Local CBY branches located in the governorates host the following accounts:

- Central government revenues accounts - These accounts and their sub-accounts are posted daily to the GGA.
- Local Government Account- For each directorate, there is a ZBA sub-account managed by an office of the MOF in the governorate. Spending unit offices in each directorate issue checks against this account; account controls are set through statistical accounts (subsidiary control accounts).
- Statistical accounts - The MOF sets the cash ceilings for each spending unit office from directorates down to chapter and sub-chapter levels. The MOF office in the directorate monitors, checks, and certifies cash availability before delivery to beneficiaries.

THE CONSOLIDATED POSITION OF THE GOVERNMENT ACCOUNTS

The CBY applies a ZBA mechanism to consolidate the transactions at the end of each day as the balances on the GGA are compared with the payments made from the expenditure accounts.

Expenditure payments are made through a bank check issued by a spending unit and co-signed by a representative from the MOF posted to the spending unit. The limits for the payments are checked based on budget allocations issued twice annually by the MOF.

[1] Revenue sub-accounts are opened by type of revenue according to the budget classification and by an office in charge of the revenue administration to support the accounting and reconciliation.

The limitations associated with the IT systems in the CBY, and delays in communicating transactions from governorates to CBY headquarters, complicate establishing a balance between the GGA and the MOF in terms of accurately monitoring the fiscal balance.

The CBY has taken measures to reduce the uncontrolled expansion of credit to the government, which had persisted due to a lack of coordination between the CBY and the MOF. Nevertheless, the MOF still does not have adequate control over cash balances and cash flows through the GGA.

ISSUES WITH TREASURY MANAGEMENT

The CBY provides reasonably good service to the MOF in managing the government's treasury position, including the management of accounts, deposit custody, payment processing, and debt management. Data for timely decision-making in the MOF are insufficient, however, and actions tend to be more reactive than proactive. The MOF cannot exercise effective control over the GGA and the consolidated GGA position for the following reasons:

- The technical efforts made by CBY to provide retail banking services to the government create inevitable budget management coordination issues with MOF in relation to commitment control functions.
- The MOF is not developing the necessary skills and functions to implement rigorous and integrated fiscal management processes and systems effectively.
- The budget allocations issued twice annually by the MOF to the CBY for the expenditures of the spending units do not allow for effective linking of cash flows related to receipts and payments flows.
- The CBY banking operations database only reflects consolidated transactions processed at the governorate level. The CBY statements do not provide the MOF with the necessary detailed data on operations in the governorates.
- The payment process experiences significant delays and arrearage build-ups because of uncertainty around funds availability and the cumbersome handling of check instruments.
- The accounting system in the CBY, including the statistical accounts, duplicates the records for the government accounting requirements, which is convenient given the weak capacity of the government institutions -- but ultimately represents an inefficient use of CBY resources.

IMPROVING THE COORDINATION OF TREASURY MANAGEMENT

The efficiency of treasury management activities would be improved by establishing an efficient administrative oversight/coordination mechanism between the CBY Treasury Department and the MOF. This should enhance the MOF's control over the resources of the Public Account and relieve the CBY of the pressure of increasing monetary emissions and/or financing the excessive budget deficit through constant reliance on an overdraft facility.

This can best be achieved by establishing a Joint Committee for Management of the Treasury (JCMT), composed of high-level and mid-senior-level representatives from the MOF and the CBY.

This JCMT would act as a liaison point for the MOF and the CBY based on a well-defined mandate, approved by both institutions, that covers all work related to treasury management, cash forecasting, budget allocation and commitment control, and financial reporting. Proposed initial tasks of the committee would include, but not be limited to:

- Conducting bi-weekly meetings to review and approve cash forecasting plans that the MOF and the CBY will prepare jointly.
- Assessing the cash flow forecasts developed by the MOF's Cash Management Unit (CMU) and providing different scenarios for the forecasted budget deficit on a quarterly, bi-annual and annual basis. The JCMT would provide its findings to the new debt management committee, comprising representatives of the MOF, the CBY, and the Ministry of Planning and International Cooperation (MOPIC).
- Conducting monthly meetings in collaboration with the debt management committee team to review the scheduled debt repayment plan and ensure that debt service and debt arrears are integrated into the cash flow forecasting plan.

The MOF and the CBY would each be asked to nominate up to three representatives to participate in JCMT meetings at the management level, while technical staff would meet more frequently to coordinate the cash flow forecasting and address data issues.

REDUCING UNPREDICTABILITY IN GOVERNMENT CASH FLOWS

Cash flow forecasting and approving cash flow plans based on forecasts represent a major step toward reducing unpredictability and ensuring that payments are made to achieve the government's priorities.

The CMU should have a key role in developing the cash flow forecasts. The following are key activities required:

- Developing an initial cash flow forecast based on a detailed month-by-month budget implementation plan for the fiscal year and accommodating seasonal patterns of cash flows based on historical accounting data.
- Reviewing the schedules of priority payments, including government employee salaries, debt servicing, and other priorities, before accommodating other due payment requirements.
- Implementing the approved cash flow plans and collecting data on the actual performance of the cash flows.
- Conducting variance analysis for the cash flow performance to better understand the reasons for and impacts of deviations.
- Making adjustments to the cash flow forecasts to provide a highly probable assessment on expected developments to the JCMT and MOF management.

The following are critical requirements for an expanded forecasting and review cycle for cash flow forecasts and cash flow plans on a monthly basis:

- The MOF should monitor that the salary and social benefits payments are made each month and that the requirements for regular payments are met.
- The requirements for debt service payments should be assessed each month and for several months ahead to monitor their impact on cash flow through the GGA.
- State-owned enterprises responsible for public utilities should receive their payments on a predictable basis from the government to provide a stable financial framework for their operations and ensure management accountability regarding their operational and financial performance.

- Revenue performance should be monitored to ensure that the revenue and borrowing inflows adequately finance the GGA and government payment requirements throughout the fiscal year.
- The government should make a reasonable effort to ensure that all revenues and borrowing plans are realized in accordance with the approved budget on a month-by-month basis.

Historical monthly cash flow data for two to three years prior to the current fiscal year should help establish monthly patterns and speed up capacity development of the CMU staff while effectively taking into account that:

- Most monthly cash flows would be expected to perform close to the pattern of 1/12 of the annual budget target.
- Any exception to the regular pattern would relate to specific, one-time events, as evidenced by deviations from the pattern in historical trends such as seasonal cash flows related to agriculture or fisheries, payment of Ramadan bonuses, *Zakat* receipts, etc.
- Debt service payments, including interest payments and repayment of debt principal, would follow a specific schedule as provided by the CBY.
- The CMU should also collect the spending units' financial plans to identify forthcoming payment requests and compare these requirements with government policy on priority payments to accommodate these in the cash flow forecasts.

Cash flow forecasts and cash flow plans should be updated to reflect actual performance, changes in government policies, and changes in the circumstances of the government's financial performance. The review of cash flow plan performance is a critical step in updating these plans to reflect actual performance, changes in government priorities, and any new information obtained, as follows:

- The past month's actual cash flow performance data should replace the projected amounts to reflect actual cash inflows and outflows.
- The variance between the planned and actual cash flows should be established to understand whether the changes have a one-time impact on the annual cash flow plan or will impact cash flow in each of the following months.
- The analysis performed by the technical experts and the resulting discussion should assist the decision-makers in updating plans for the budget implementation and fine-tuning the underlying policies. Early action, including policy change, would facilitate the achievement of policy objectives and save financial resources.

Effective implementation of the cash flow plans should be based on a flexible, routine administrative oversight mechanism. The most efficient tool for managing the cash flows and ensuring the necessary impact on aggregate balance management should be the budget allocation process. The budget allocation process is well covered by the financial regulations adopted and modified by the decision of the Minister of Finance. New features of a revised budget allocation process should include the following:

- The budget allocations (financial ceilings) issued to the CBY to enable payments by spending units should be made monthly instead of semi-annually and based on the monthly cash flow plans.
- The budget allocations should be issued once spending units and governorates complete core requirements for receiving the current budget allocation, including reporting cash flows for the previous month.

- The budget allocations should clearly establish the sequence of payments within each month according to decisions by the JCMT and the MOF and reflect government policies according to defined priorities.
- Clear responsibilities should be established for spending units and the MOF representatives assigned to these spending units regarding the completion of their reporting requirements and in compliance with the prioritized sequence of needed payments.

The CMU, in close cooperation with the technical teams of the JCMT, should aim for a realistic ongoing assessment of cash flow performance. This will support JCMT policy decisions designed to enable adequate coordination of fiscal and monetary policy frameworks over the course of the fiscal year. Furthermore, corrective action by MOF management should facilitate faster adjustment and updating of cash flow plans.

ENHANCED INFORMATIONAL FLOWS FOR EFFECTIVE TREASURY MANAGEMENT

Receiving actual cash flow performance data is a critical requirement for successful treasury management. However, the current arrangements for timely data supply are not adequate. The data do not effectively reach the staff responsible for performing the analytical tasks and providing information to decision-makers.

The short-term strategy for improving informational flows should include the following:

- The CMU, acting in the name of the JCMT, should be granted the authority to request and obtain from public bodies all data necessary for completing their tasks. Such authority should be established through a relevant regulation adopted by the Minister of Finance or the Cabinet of Ministers, as appropriate.
- The CMU should establish a facility whereby the spending units can request separate, one-time large-value payments that could significantly impact cash flows. Such requests should be made before the month when the payment is due to allow for timely accommodation in the cash flow forecasts.
- Authorized CMU staff should obtain access to the CBY database, thereby allowing the CMU to monitor GGA sub-account balances and daily transactions processed through the accounts. The process to grant such access to the CBY database has been initiated.
- The MOF should tighten accountability within the government to ensure that all spending units and their MOF representatives complete their tasks adequately and report their financial results on time.
- The budget allocations for the current month should be made based on a review of each spending unit's cash flow performance report for the previous month, along with the reconciliation statement for transactions processed through the bank account.
- Supplying the CMU with the spending units' financial plans would facilitate a better understanding of cash flow deviations from standard patterns while accommodating the data in the cash flow forecasts will facilitate efforts to segregate priority payments from other payment requirements.
- Failure to communicate the cash flow data or the requirements for future priority payments should result in a performance review of respective officers that consider the consequences of the delays.

- The MOF should establish a functional interim database to store the accounting data received from the spending units during the fiscal year to strengthen the accounting and reporting functions and improve financial and fiscal performance monitoring during the year.

The long-term strategy regarding financial information and accountability should be based on adopting a comprehensive ICT solution and an adequate model of banking arrangements to conduct government financial operations. This strategy should proceed along the following key lines:

- The MOF should develop the key concepts of the future financial management information system, preparing and adopting a Conceptual Design for the Government Financial Management Information System (GFMIS).
- The MOF should solicit interest from international donor institutions to secure financing of financing of longer-term GFMIS implementation.
- Government banking arrangements should be gradually transitioned towards electronic processing of payments and relinquishing cash notes in government payments. Early piloting of such projects would be an important verification of the strategies adopted, starting with establishing regional treasury units to manage and record government cash flows and implementing a pilot program to deposit government employees' salaries to bank accounts.

THE NEW TREASURY MANAGEMENT STRUCTURE

The new treasury management structure will facilitate MOF-CBY cooperation to transfer treasury management responsibilities to the MOF on a gradual basis. To achieve this objective, the MOF must be further prepared to assume the responsibilities of cash flow forecasting, adopt and review cash flow plans, and coordinate the in-year implementation of the cash flow plans with the CBY.

The implementation steps outlined below will promote both the informational flows and effective enforcement mechanisms needed to support the new cash flow forecasting, commitment control, and payment authorization arrangements.

IMPLEMENTATION TIMELINE

Effectively linking current CBY treasury operations to the General Administration for the Management of the Public Account (GAMPA) at the MOF	
Completed	Drafting regulatory guidelines for the JCMT and discussion with key stakeholders of the CBY and the MOF
Completed	The CBY and MOF each nominate two to three key participants (for the JCMT
May 20, 2021	Facilitating the first JCMT kick-off meeting and scheduling the upcoming meetings for each quarter of the year
May 2021	Initiating CMU activities at the MOF and assigning a dedicated team to work in the unit
May 30, 2021	Establishing operational procedures for submission of the quarterly expenditure plan by the spending units and developing the required templates of the expenditure plan
May 30, 2021	Establishing guidelines for the informational flows needed for cash forecasting and cash flow monitoring purposes

Effectively linking current CBY treasury operations to the General Administration for the Management of the Public Account (GAMPA) at the MOF	
June 15, 2021	Establishing guidelines for the development of the yearly, quarterly, and monthly cash forecasting plans and developing the related electronic templates
June 15, 2021	Developing requirements for the reporting database in the MOF to facilitate the acquisition of needed fiscal performance data for management reporting and cash flow monitoring purposes
June 30, 2021	Developing a timetable for the budget execution cycle, including provisional dates for the development of the cash flow forecasts, their review and approval of the cash flow plans, and revision of budgetary allotments
June 30, 2021	Establishing guidelines for revision of the budgetary allotments, including defining the types of expenditures that can be revised or postponed, depending on governmental priorities
July 2021	Providing comprehensive training to the CMU in the MOF on developing the initial cash flow forecast, performance variance analysis, and reviewing the performance of the cash flow plans
August 30, 2021	Developing the scope of a treasury unit operation in Aden to facilitate the initiation of transition towards TSA functionality
September 15, 2021	Initiate a working group to develop the Conceptual Design for the GFMIS

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ECONOMIC RECOVERY & LIVELIHOODS PROGRAM (ERLP) - YEMEN

ANNEX 26

RECOMMENDATIONS FOR CONTAINER TERMINAL OPERATIONS – YARD EFFICIENCY

March 2021

Prepared for the United States Agency for International Development, USAID Order # 72027920M00001

USAID/Yemen - Economic Recovery & Livelihoods Program (ERLP)

The Pragma Corporation, 116 East Broad Street, Falls Church, VA 22046

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LIST OF ACRONYMS

APRON	APRON
BAPLIE	Bayplan/Stowage Plan Including Empty Locations
CTR	Container
DRY	Dry Containers
EDI	Electronic Data Interchange
EH	Empty Handler
ETA	Estimated Time of Arrival
EXP	Export cargo
FULL	Full Containers
GMPH	Gross Moves Per Hour
Ha	Hectares
HAZ	Hazardous or dangerous cargo
HSSE	Health, Safety, Security and Environment
IMP	Import cargo
ITT	Inter-Terminal Transportation
ITV	Internal terminal vehicle
KGS	Kilograms
KPI	Key Performance Indicators
MHPM	Man hours per move
MT	Metric Tons
MTY	Empty Containers
NMPH	Net Moves Per Hour
OM	Operations Manager
OOG	Out of Gauge
OPS	Operations
PA	Port Authorities
PE	Planning Executive
QCC	Quay Crane
RF	Reefer containers
ROW	Vessel Row
RS	Reach-Stacker
RSO	Reach-Stacker Operator
RSTW	Restow ops/cargo
RTG	Rubber Tyred Gantry
STS	Ship to Shore Gantry Cranes
T/S	Transshipment cargo
TAT	Turnaround time
TC	Terminal Chassis
TDR	Terminal Departure Report
TEU	Twenty-foot Equivalent Unit
TIER	Vessel Tier
TM	Tally Men

TOS	Terminal Operating System
TT	Terminal Tractor
TTO	Terminal Tractor Operator
TWD	Tween Deck
TWL	Twist Lock
VHC	Vessel Hatch Cover
VMT	Vehicle Mounted Terminals
VP	Vessel Planner
VPR	Vessel Performance Report
VS	Vessel Supervisor
Wi-Fi	Wireless Connectivity

EXECUTIVE SUMMARY

The purpose of this assessment is to discuss and capture the current operational state of ACT and conduct a detailed analysis of operational procedures and data to establish baseline performance, identify potential opportunities for improvements, and develop performance-enhancing recommendations for the yard. This process started by reviewing current operational practices at the ACT to identify where changes could be made to improve container handling practices and procedures between the quay, yard, and exit/entry gates.

On average, the container yard is stacked at a level of between 80% and 90%, with an average of 86%. During the process of discharging containers, yard occupancy is sometimes over 100% leading to severe congestion at the ACT. This results in containers temporarily being stacked in unofficial stack locations, with associated risks of containers getting lost. This high yard occupancy results from the consignees of the containers leaving the containers in the port for an extended period of time. For them, the container yard is a cheap and safe storage location. The limited availability, one shift per day, of the customs clearance authorities responsible for allowing containers to leave the ACT is also a reason for high yard occupancy levels.

Numerous remote roundtables were held to discuss with YGPAC the recommendations for reorganizing container yard operations to achieve greater efficiency, specifically those dealing with the yard stacking ratio, general container dwell times, and overall container terminal baseline for future terminal strategic plans.

Preparation and logging of a baseline focus vessel in March 2021 is also part of the overall identification of planned versus actual vessel and yard planning to execution. This will result in future remote training on port operations and communications with possible revisions made to staff job descriptions to match the needs of the proposed recommendations on processes and staff responsibilities.

The recommendations provided in this section are designed to assist the operations team responsible for day-to-day management as they improve current practices and deal with the problems they face in delivering these services. Annex III provides the operations planning and execution processes checklist. The assessment recommendations in Table I briefly outline the various actions that can be taken to assist ACT in implementing the level of practice commonly found in international ports. The extended recommendations list is found in Section VI of this report.

This assessment recommends actions to optimize operations services, categorized as Short-medium, and Long-term recommendations (15), summarized in Table 1 and detailed in Section V of this report.

Table 1: ACT OPS Recommendations

TIME FRAME	MEASURES	DURATION WEEKS
Short-Medium Term	1. **Equipment Spare Parts and Warranty** – To be reviewed by YGPAC.	-
	2. **Training of maintenance staff** – Recently procured equipment requires a high level of training of maintenance staff.	6
	3. **Commercial Policy Towards Consignees** – Giving discounts for swift pick-up in contrast to punishing late pick-up might also convince the consignees to have the containers picked up as early as possible.	4

TIME FRAME	MEASURES	DURATION WEEKS
	4. **ACT Heavy Hook Improvement** – This involves a series of operational opportunities to allocate ITVs on the heavy hook quay crane sequence to improve Operational performance.	**6-10**
	5. **Day-Shift Challenges** – Overtime day shift to lower yard congestion.	**8**
	6. **Operations Training** – Discharge / Load Synchronization. Focus Vessel Based	**10**
	7. **Operations & Planners Communication SOPs** – This allows for reviews of such SOPs in the short term to optimize inter-departmental communication.	**8**
	8. **Terminal Real-time Information** – A Wi-Fi connection is required to ensure real-time updates are available in the system through OPS handheld devices.	**40**
	9. **Truck turnaround time** – Roll out barcode labeling and scanning to mark containers using handheld devices.	**24**
	10. **Terminal Tractor / Terminal Chassis Allocation** – Gradual increase of TT allocation per quay crane.	**6**
	11. **Container Terminal Equipment Ratio** – 10 operational RTGs and 2 EHs must sustain the current yard utilization ratio.	**40**
	12. **Planning Department Support** – A cargo controller can support as project coordinator for documentation control with vessels, agents, and operations units.	**12**
Long-Term	13. **Yard Infrastructure** – Infrastructure vs. superstructure capital investment.	**72**
	14. **TOS Upgrade** – Upgrade or replacement of the current system can bring significant improvements for the future.	**36-72**
	15. **Yard Layout Revisit** – A reconfiguration to some back-to-back RTG stacks may allow for extra capacity. A study is required, then testing.	**56**

RECOMMENDATIONS FOR CONTAINER TERMINAL OPERATIONS – YARD EFFICIENCY

I. OVERALL PORT DESCRIPTION[1]

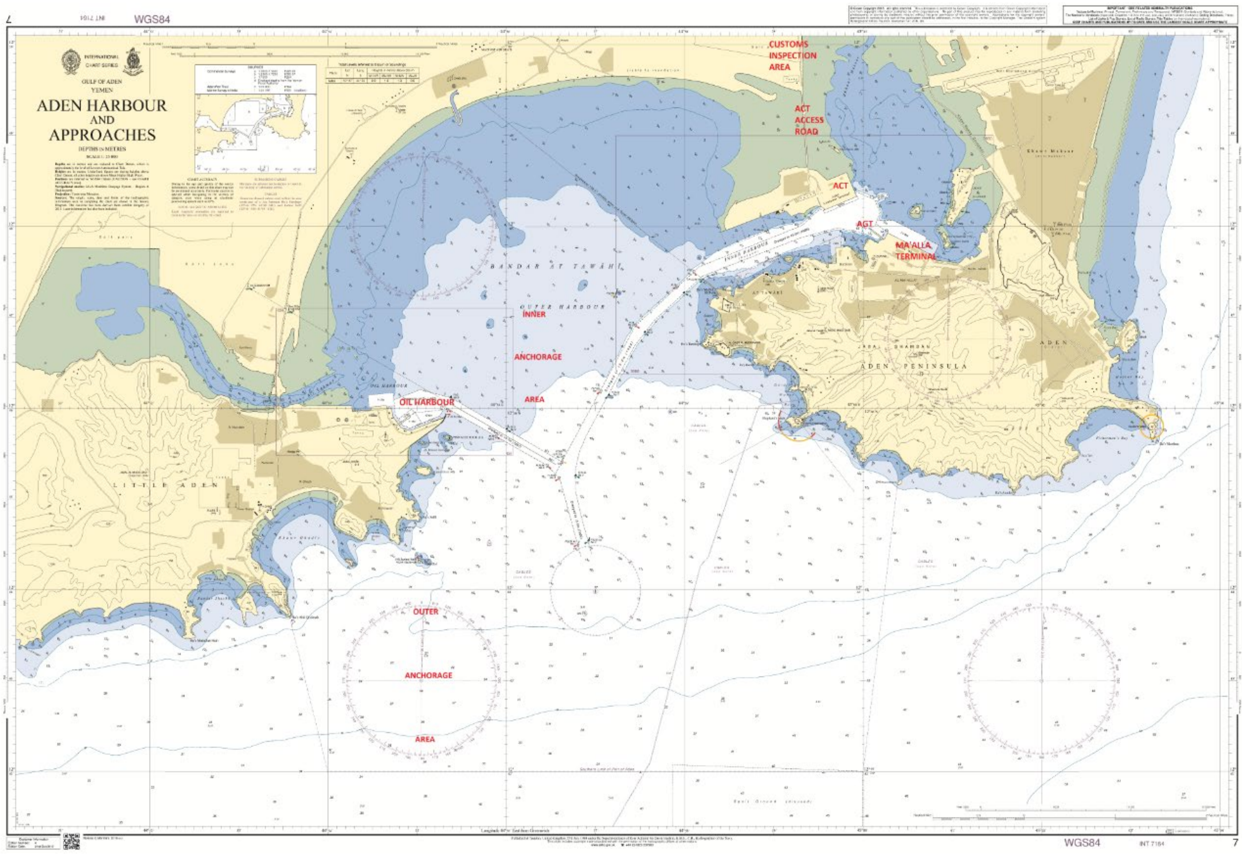
The Port of Aden is situated between the promontories of Aden (Jebel Shamsan, 553m) and Little Aden (Jebel Muzalqam, 374m). It is protected from the NE and SW monsoons by these hills and along the northern boundary by land, enabling it to operate without restriction all year. The inner and outer harbors cover a total area of some 130km2.

The port consists of the outer harbor, providing outer and inner anchorage areas, the oil harbor at Little Aden on the west side of the bay, and the inner harbor to the east. A channel reaches these harbors with its entrance between the promontories where the pilot station is located. The outer section of the channel has a depth of 15.0m. From the bifurcation point, a channel heading northwest to the Little Aden oil harbor has a depth of 14.7m, leading to four berths for oil tankers at depths of between 11.6 and 15.85m, plus LPG and dry cargo berths and a RoRo berth, all at a depth of 11.0m2.

The channel to the inner harbor, leading northeast from the bifurcation point, has a depth of at least 15.0m, leading to a turning area, depth 15.0m, diameter 700m, south of the Aden Container Terminal (ACT).

1 All water depths in this report are given below chart datum, i.e. zero tide
2 This report is primarily concerned with containers handled in the inner harbor

Figure 1: Aden Harbor and Approaches (UK Crown Copyright)



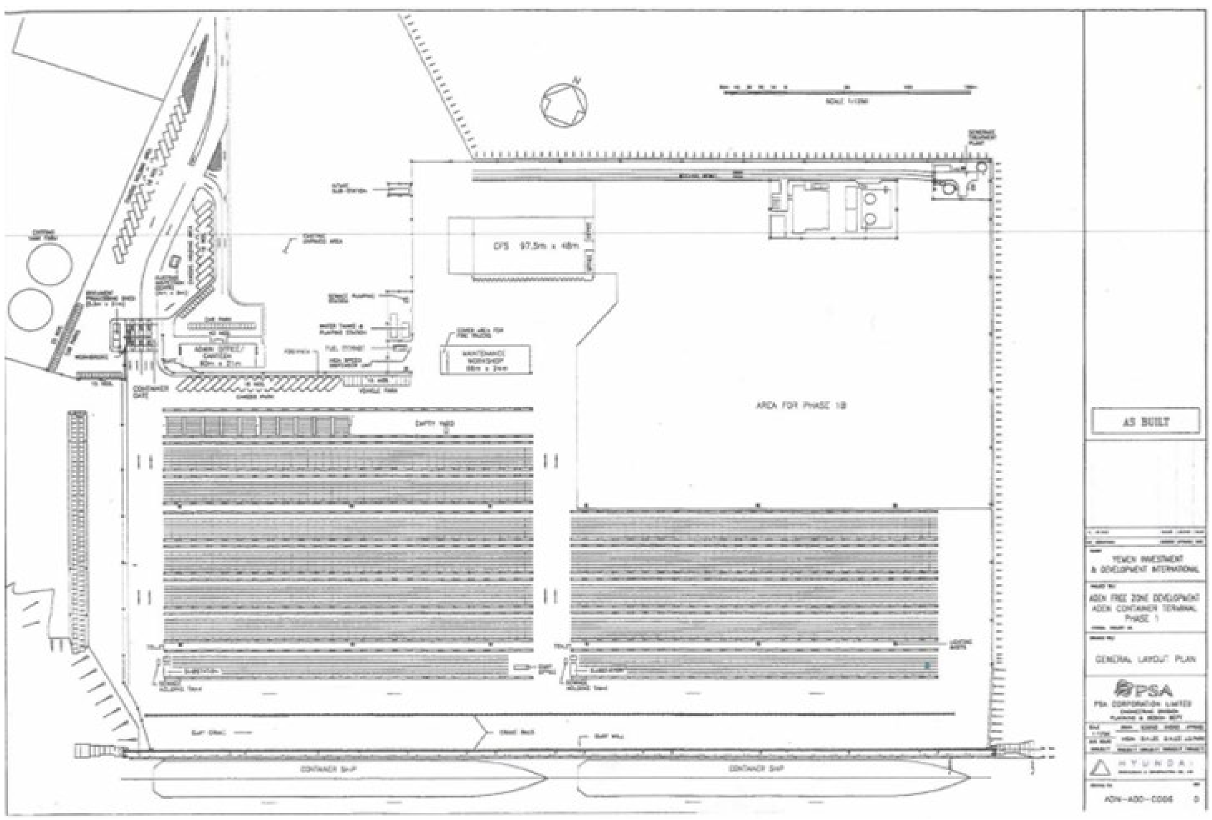
II. ADEN CONTAINER TERMINAL

Table 2: CT PROFILE

ADEN CONTAINER TERMINAL PROFILE			
Profile date:	March 8, 2021	**2020 TEU:**	423,393
Port Authority / Operator	Yemen Gulf of Aden Ports Corporation YGAPC	**Container Terminal:**	45 Ha
Port Website:	www.portofaden.net www.act-aden.com	**Berths A01 & A02:**	2
Inbound Gate:	1 (single lane)	**Total Berth Length:**	700 m
Outbound Gate:	1 (single lane)	**Channel Depth / Berth Depth:**	15/16.0 m
On-Line Access System:	Zodiac	**S. Post-Panamax / Panamax Container Cranes:**	2+3
Appointment System:	none	**CY Rubber-Mounted Gantries:**	12
Terminal Hours:	Sun – Thurs. 0800 - 1600	**CY MTY Handlers:**	3
Gate Hours:	24/7	**CY Reach Stackers:**	5
Ground Slots:	6,635	**Total CY Lift Machines:**	8
		Electric Reefer Point Plugs:	268

The ACT was constructed between 1997 and 1999, providing Aden with berths for large container ships and 45 Ha of the working yard and support facilities for handling containers. Depth alongside is 16.0m in a dredged pocket. It is served by the 700m diameter turning area. Construction is of mass concrete blocks of up to 130 MT each, laid on top of each other, on a rock and gravel foundation in a trench dredged along the line of the quay to a depth of around 18.0m below chart datum. Tremie concrete was poured into holes left in the bottom blocks (to reduce their weight) after they were laid. Groves cast into the sides of the blocks were also filled with tremie concrete to key the blocks to each other. A reinforced concrete apron tops the lower blocks above the high water spring tide level. The ACT provides two berths over 710m of the quay, where three smaller vessels can berth together on occasions. Large diameter rubber tube fenders protect the quay wall with contact plates supported on heavy chains. The quay wall is in excellent condition. The ACT is equipped with six container gantry cranes, four installed in 1999, one in 2001, and two in 2012[3]. (total seven cranes less one that was dismantled in 2020). One gantry crane is currently out of commission. One requires maintenance to restore it to full operational capacity, leaving ACT with five usable cranes, four of which are fully functional and with one crane on standby for support work while awaiting maintenance.

Figure 2: As Built CT, Ref. YGPAC



II.I CURRENT SITUATION & ASSUMPTIONS

Based on 2020 ACT operational figures and the various video conferences with planning and operations teams, the current situation at ACT is marked by the Baseline figures in Table 3 below.

[3] 1999/2001 Fantuzzi, 2012 Liebherr. One Fantuzzi crane (1999) was dismantled in mid-2020, 5 remain operational

Table 3: ACT Baseline Figures 2020

KPIs	Baseline
2020 Throughput TEUs	423,393
Proforma Berth Performance	68%
Vessel Working Rate per hour (CTR/Hour)	20
Berth moves per hour BMPH	18
Number of Operational Quay Gantry Cranes	5
Quay Crane Productivity GMPH	13
TTs / Quay Crane	4-Mar
External Truck Turnaround	240 minutes (for both FCL and MTY deliveries)
Operational RTGs	9-Aug
RTG MPH	17
Average Dwell Time in Days	IMP FCL 10 - IMP RF 4 – EXP FCL 5 – EXP MTY 12
Ground Slots	6,635
Max Workable Stack Height Ratio	4.33
Optimal Workable Stack Height Ratio	3.2
Current Workable Stack Height Ratio	3.9
Current Yard Utilization	90%
Optimal Yard Utilization	70%
Max Yard Capacity TEU	28,729
Current Yard Capacity TEU (APPROX.)	25,876
Optimal Yard Capacity TEU	21,232

The current baseline with 423,393 TEU throughput in 2020 places ACT at 68% berth performance when considering that the maximum berth output depends on how many cranes are available today. The five operational ship-to-shore cranes can produce up to 624,000 TEU/yr. This is achieved by multiplying the maximum sustainable output of 16,000[4] crane hours per year by the maximum sustainable crane productivity of 21 containers per hour[5] equivalent to 39 TEU/hr.[6] The length of the quay is 700m with 620m currently used (non-used areas are marked 0-60 60 m from the non-operational crane and mark 680-700). Also, vessel allocation, including mooring and safe distance per vessel, is 30m between vessels, so ACT splits the berth into two allocated berths, A01 & A02 quays, since the average calling vessel LOA is 200m.

The current quay crane productivity of 13 moves per hour results in high vessel discharge time and limits the berth capacity in the long run. Increasing terminal tractor allocation per quay crane would support the general productivity.

The maximum workable yard stack height ratio of FCL at ACT is 4.33 [(total slots-shifting slots)/ground slots = (100%*(6*5-4)/6]. With 6,635 ground slots in ACT, the total slots available are: 6,635*4.33 = 28,729. The current yard average workable stack height ratio of ACT is 3.9 (90% * (6*5-4)/6). The optimal workable yard stack is somewhere around 70-75% of the maximum capacity to shift boxes (in a five-high stack, this means four container-slots): 0.7*(6*5-4)/6 = 3 – 3.2 ratio. When applying a 25% to 30% peak, when both vessel operations and gate deliveries are being operated, the optimal ratio allows

[4] 5 cranes @ max of 4,000 hrs./yr. = 20,000 crane hours. 80% = 16,000 sustainable crane hours
[5] Maximum subject crane productivity of 27 containers per hour, 80% = 21 contr./hr.
[6] ACT OPS Container to TEU ratio is 1.5

the yard to cope with operational load without congestion. A higher yard capacity ratio (i.e., above 70%) will result in lower productivity, more housekeeping, and reshuffling moves.

Table 4 below showcases the initial derived KPIs of the ACT using actual quay length, number of quay cranes, actual dwell times, and actual ground slots. This derives the planned stack height ratio for optimal operations performance of 2.67 for FCL import and 3 for MTY export.

Table 4: ACT Capacity Calculation Assumptions

ADEN CONTAINER TERMINAL 2021 CAPACITY CALCULATIONS		
	ACT	
Number of Cranes	6	5 Operational
Quay Length	700	M
Crane Density 1 per	117	M for 6 Cranes
Annual Crane Production Lifts	70,000	ANNUAL for 5 Cranes
Volume Lifts	420,000	CTR
TEU Ratio	1.5	
Volume in TEU	630,000	
Transshipment	1%	
IMP/EXP	99%	
T/S volume in TEU	6,300	
IMP volume in TEU	311,850	
EXP volume in TEU	311,850	
T/S dwell time to ship to ship	7	
IMP dwell time	10	
EXP dwell time	12	
Operation height for T/S	3	
Operational height for IMP	2.67	
Operational height for EXP	3	
Ground slots for T/S	20.14	
Ground slots for IMP	3,198	
Ground slots for EXP	3,418	
	6,635	**Required Ground Slots**

Going back to Table 3, optimal FCL yard utilization for RTG operations with six rows and one truck lane is marked at a 3.2 workable stack height ratio. When multiplied by the current ground slot capacity, the resulting yard capacity is approximately 21,232 TEUs, equivalent to 10 days FCL dwell time. The stack height for MTYs is 4. This means that the equipment will stack five high. For a working terminal rather than a depot, this is within norms and confirms the actual average dwell time of 12 days. The results show the operational discrepancy between optimal capacity and current capacity of approximately 4,000 TEUs operational optimization gap in the yard.

As per Annex II, 8 out of 12 RTGs are operational, equivalent to the current STS to RTG ratio of 2. The optimal ratio for the current yard utilization at the ACT should be around 2.5, equivalent to 10 operational RTGs for 4 STS gantry cranes and approximately 12 RTGs when 5 STS gantry cranes are operating. Considering the average RTG performance for loading/unloading trucks of 15-18 moves/hr., the current yard productivity per RTG of 17 moves/hr is within this range. Since the quay crane capacity at the current throughput is not maximized, it is safe to consider that not having the right RTG to STS ratio is not a major bottleneck today, especially given that 4 RS and 1 EH are available. However, ten operational RTGs and 2 EHs are required to sustain the current yard utilization ratio.

The Terminal Operating System used at ACT is Zodiac, a TOS made and delivered by DP World ten years ago. This TOS is mainly used to plan vessels' load and discharge operations, keep track of where containers on the terminal are stored, and synchronize operations planning with execution. The latter, however, is not currently achieved because there is no Wi-Fi connectivity in the yard and quay area. This results in no actual live information stream between the TOS and the container handling equipment working at the terminal. The tracking and tracing of container movements at the yard are done by means of handwritten paper slips updated at the end of any container transportation or relocation. This paper slip is then used to transfer the stacking info of containers into the TOS. This manual procedure has a high risk of human error with container stacking location information being lost or mistakenly logged in. This, in turn, will result in repetitive and time-consuming search missions by port staff in the yard to determine the location of the missing container. This delay directly affects the delivery of full containers to consignees, thereby affecting external truck waiting time, adding extra RTG moves, and yard reshuffling to prepare for container delivery or loading on a vessel.

The external truck turnaround time in table 3 above is 240 minutes for both FCL and MTY deliveries. With an average of 90 minutes per task, the maximum turnaround time must be brought down to 180 total cycle time. To do that, quick operations must result in finding and delivering every container. The Operations department needs to roll out barcode labeling and scanning to mark containers using handheld devices. This will significantly reduce track and trace time and therefore lower external truck turnaround time, which is very high today.

Based on already established acceptable stackyard ratios and current dwell time for FCL and MTY boxes, the terminal layout in Figure 3 below needs to be examined to see if stacks may be configured to reduce RTG travel distances as well as achieve higher stack utilization. A reconfiguration to some back-to-back RTG stacks may allow for extra capacity. This will significantly impact yard utilization and performance, allowing better overall terminal productivity.

Figure 4 configuration shows the APRON side stack configuration closer to the berth. It is a 7+1 stack configuration that does not depict the same stack size as that of the ACT. This is where most of the import FCLs are available with optimized delivery from 2 truck lanes instead of 3, allowing for more ground slots in the yard. Other container terminals use this configuration without jeopardizing berth or yard productivity so long as they can maintain a 2.5 RTG to STS ratio.

Figure 5 configuration is also a 7+1 stack configuration that does not depict the same stack size as that of the ACT. However, it still shows the MTY stack configuration at the middle to back end of the container yard. This allows for maximum yard capacity during MTY stack vessel loading operations. The ratio of RTGs to STS is not required to be kept at a similar ratio and can be as low as 2 instead of 2.5.

Figure 3: Terminal Layout

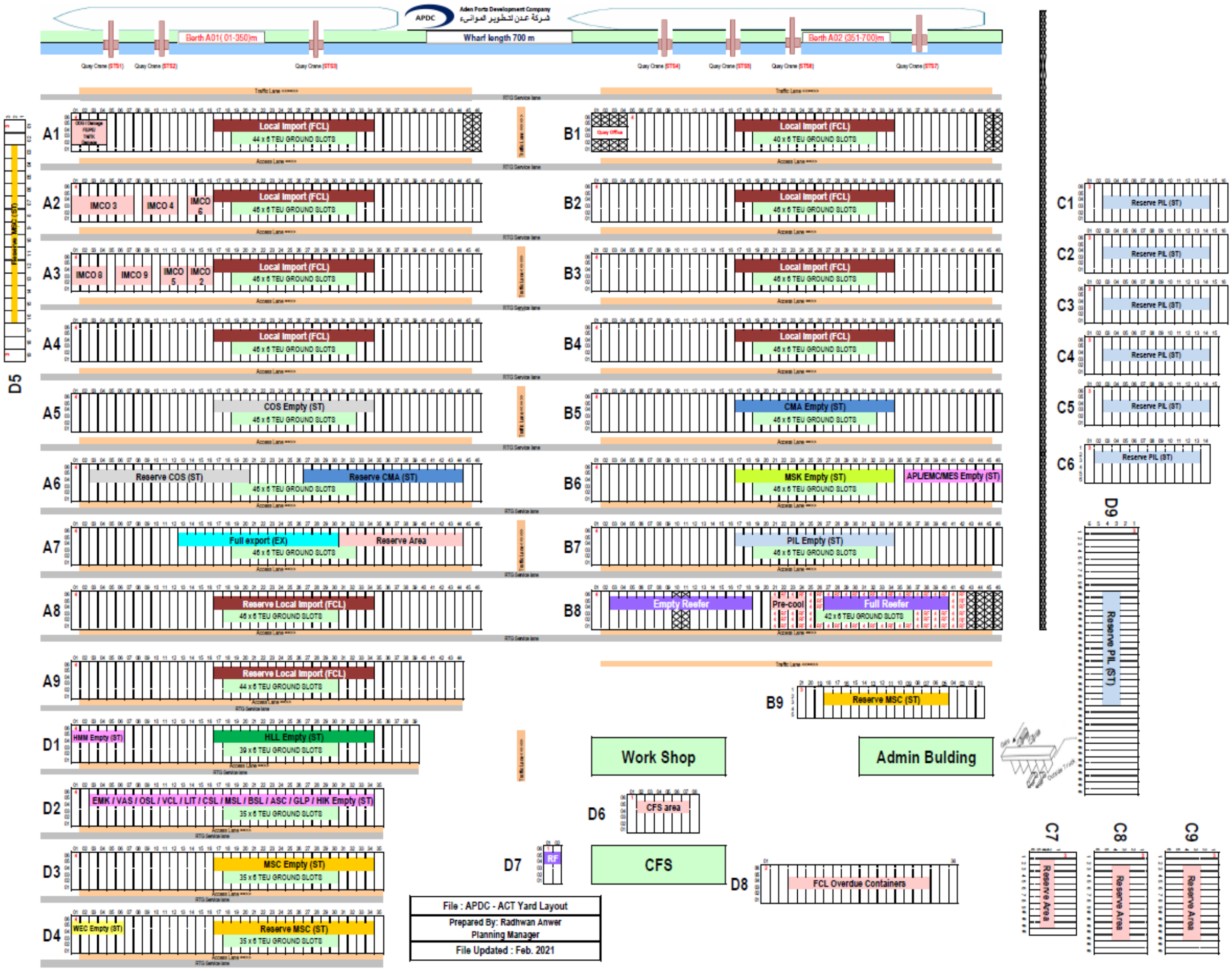


Figure 4: Back-to-back Stacks APRON Side

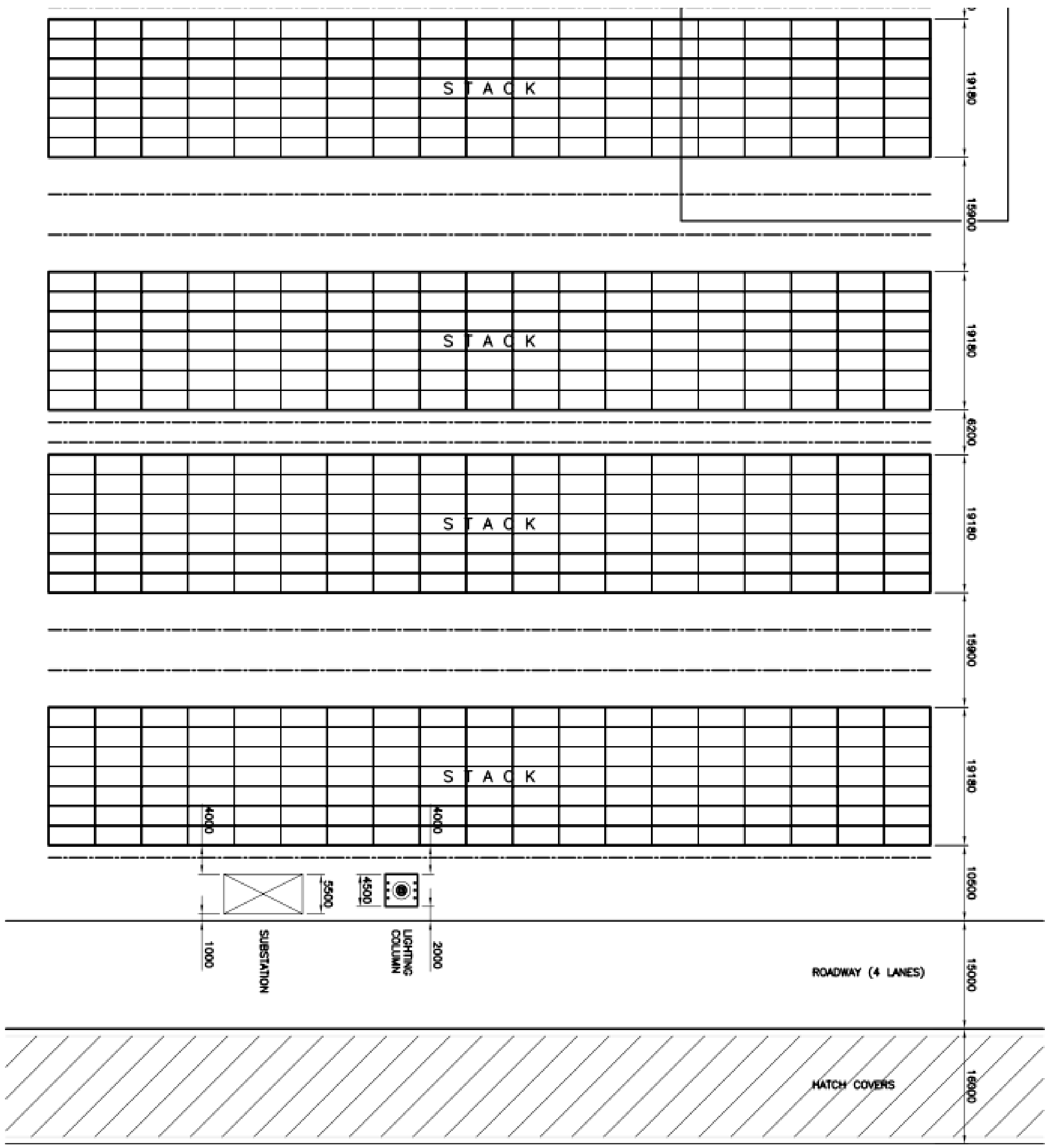
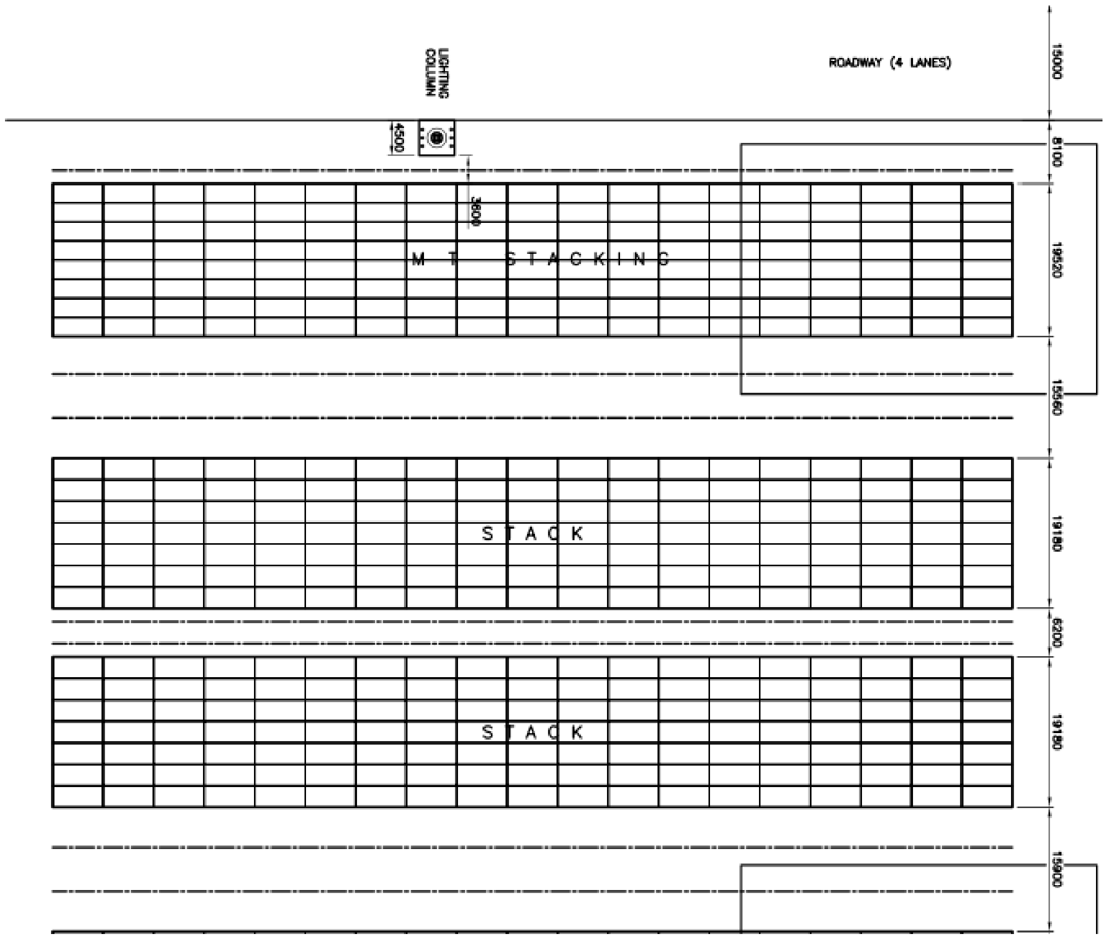


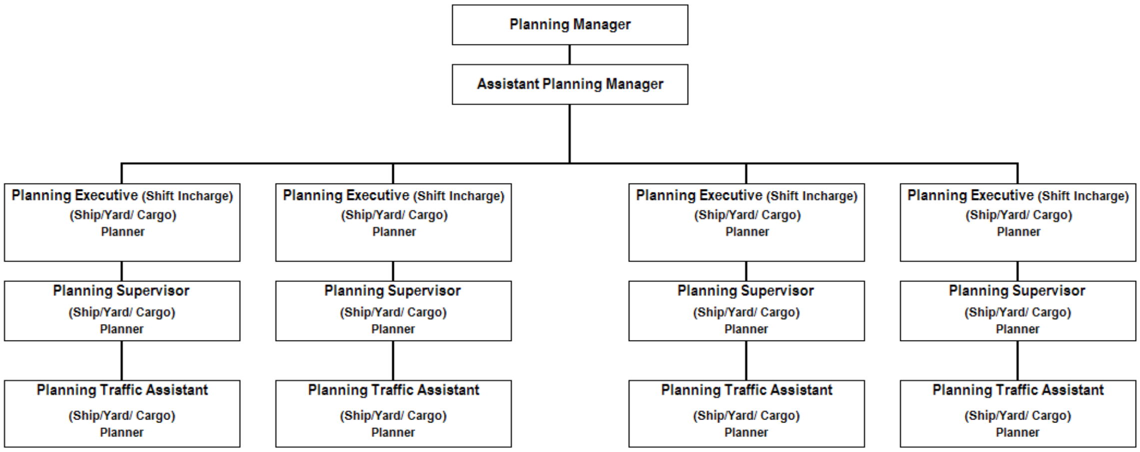
Figure 5: MTY Stack View of Back-to-Back Stack



II.2 PLANNING DEPARTMENT

The planning department's current headcount is 16, including the planning manager and planning supervisor. Three planners per shift over a three-shift period per 24 hours. The updated organizational chart for 2021 in Figure 6 below shows the current need for more planners to ensure sustainability and growth. This could be an opportunity to recommend a cargo controller who basically acts as a project coordinator to ensure all communication between ACT and vessel agents are followed through and updated in the TOS in a timely fashion. Taking this task away from the planners would allow them to better focus on the real task ahead of clearing and maintaining optimized plans to lower yard congestion and improve berth productivity.

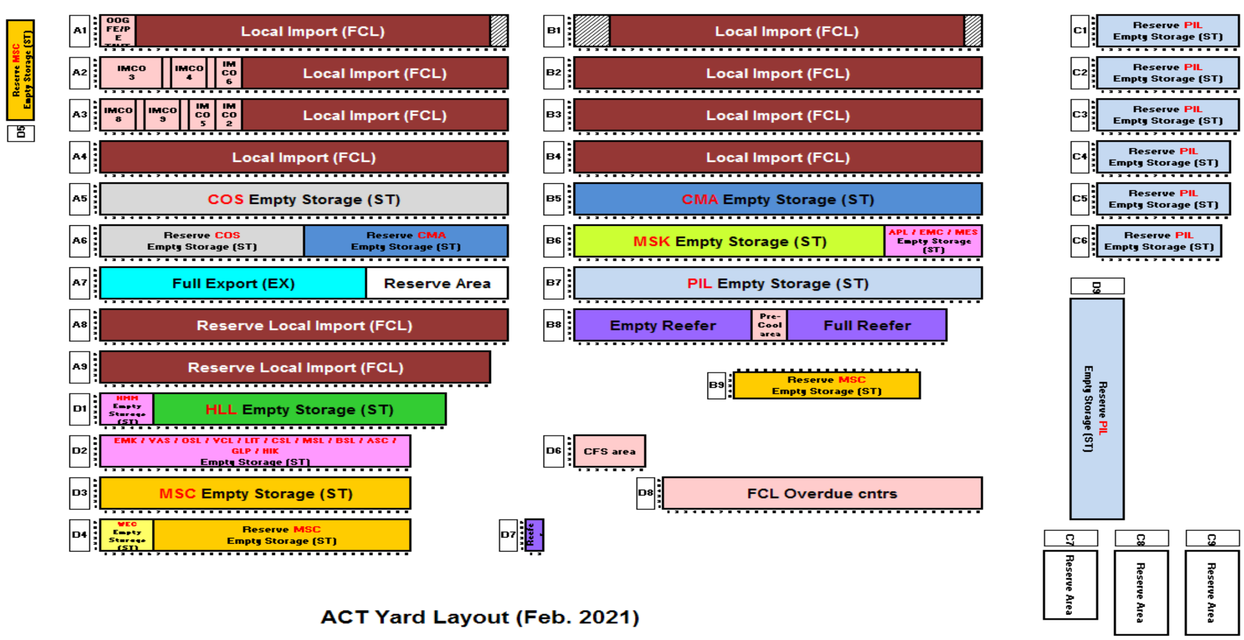
Figure 6: Planning Org Chart 2021 (Ref. ADPC)



Vessel and Yard planning is prepared by the planning department as per Annex IV. This shows the yard layout in Figure 7 below, FCL and MTY stack splits, planning overview, and operational procedures. The yard layout shows areas A, B, C, and D with clear FCL, MTY, IMCO, RFs, and CFS allocations. The TOS layout is exact, with no marginal errors to the actual layout. Therefore, it is recommended to plan to implement Wi-Fi connectivity to maximize the use of the current structure in the short and medium run.

For the long run, updating the current TOS modules and adding extra features would be the right way forward. ACT is currently discussing with DP World enhancements that will require a GAP analysis, system configuration, roll-out, training, and go-live.

Figure 7: Yard Layout



Without real-time data during operations, planners cannot immediately rectify any change or deviations by the operations team. This results in an operational deviation from actual plans by the operations department, which adds double moves, longer crane traveling, and ultimately less operational efficiency.

Moreover, planners perform all sub-department tasks, including vessel planning, yard planning, and ITT planning for CFS operations. This ensures that all planners can perform all tasks with a lower risk of a lack of coverage if any staff are absent. However, to better focus on real tasks, it is recommended that a cargo controller should be added to the planning team to act as a project coordinator for documentation control with vessels, agents, and operations units. Annex IV shows the various tasks the cargo controller does to ensure the quality of data in a timely manner.

III. CONCLUSIONS

It is common with many terminals that inbound containers are not properly stacked in the yard where container reshuffles cannot be avoided. The issue of unproductive moves or reshuffling during the stacking of inbound containers is always challenging to the operations team. To determine the most effective and best possible solution to maximize the efficiency of the stacking system at the yard, it is best to start with identifying the two main container handling operations, namely stacking and retrieval.

If the containers are stacked in the best possible location, then the retrieval time of the container, waiting time, and cost of the delivery truck will also be reduced. Efficient container handling (storage and retrieval) at the terminals is highly significant in reducing transportation costs and maintaining shipping schedules.

The focus of this work is on container stacking in the yard area of the Aden Container Terminal. The main focus is on the following points of the container stacking system.

- Identify the location in the yard where the incoming container should be stored to minimize moving or reshuffling it.
- Avoid costly extra movements of RTGs and other equipment in the yard.
- Avoid late delivery of the container to the destination by truck.
- Study the possibilities and implications of yard reconfiguration by creating, combining, or reorganizing stacks.

The Port has been operating for many years under difficult circumstances, in particular since the start of the most recent conflict in 2015 and the ensuing restrictions on the import of many items, and restrictions on travel to certain countries for Yemeni nationals. The unwillingness of non-Yemeni specialists whose skills are needed to carry out some of the repairs, or to provide highly skilled training in the use of complex equipment, has further restricted the ability of the Port to carry out the work and provide the staff training that it ideally would want to deliver. Import restrictions have included the non-supply of spare parts for essential quay cranes, RTGs, and EHs, and as a consequence, a number of the these, including 4 RTGs, 2 EHs, 10 TTs, and one quay crane, remains 'under repair,'

However, the Operations Department, supported by the Technical and Planning Department, continues to provide good services that have increased throughput to well over 400,000 TEU in 2019 and 2020 while gradually reducing delay times at anchor and vessel waiting times. This is a commendable result, with aspirations to move in the short to medium run into the better berth, crane, and yard productivities that would bring ACT in the long run to optimum sustainable productivity.

IV. RECOMMENDATIONS

The recommendations given in this section are designed to assist the team responsible for terminal operations as they improve current practices and deal with the problems they face in delivering these services. Annex III shows the Operations Checklist, which contains items considered to implement the level of practice commonly found in international container terminals. The results are shown in an operations strategic performance plan in table 4 below to bring ACT to the level of service level agreements and give it the ability to increase the level of transshipment volumes that the port used to achieve a few years back.

This is achieved via increasing the quay crane productivity through operational usage of semi-automated spreaders, telescopic booms, automated hoisting, and planned vessel operations, twin lift spreaders, and automated spreaders. Moreover, a focus on increasing Ship Rates is achieved via fixed berthing windows and lower yard utilization and stack height. The ACT can now discharge and load two ships at the quay, using three cranes on one ship and one on the other, or a two-by-two configuration, with the possibility to add the fifth crane once this is fully functional. This increased use of cranes needs to be balanced by better yard operations and the availability of yard equipment to avoid any bottlenecks in yard operations.

Table 5 : Short, Medium, and Long Term Strategy

KPIS	BASELINE	SHORT-MEDIUM	LONG TERM
2020 Throughput TEUs	423,393	600,000 capacity	650,000 capacity
Proforma Berth Performance	68%	70%	85%
Vessel Working Rate per hour	20	35	45
Berth moves per hour BMPH	18	30	40
Number of Operational Quay Cranes	4	4 + 1	5
Gantry Crane Productivity GMPH	13	18	22
TTs / Quay Crane	3 - 4	4 - 5	6
External Truck Turnaround	240 minutes (for both FCL and MTY deliveries)	180 minutes	160 minutes
Operational RTGs	8 + 1	10	10 + 1
RTG MPH	17	17	20
Average Dwell Time in Days	IMP FCL 10 - IMP RF 4 – EXP FCL 5 – EXP MTY 12	FCL 9, MTY 11	FCL 7, MTY 10
Ground Slots	6,635	TBD	TBD
Max Workable Stack Height Ratio	4.33	4.33	4.33
Workable Stack Height Ratio	3.9	3.2	3.0
Yard Utilization	90%	80%	70%

1. Equipment spare parts and warranty: All help to the Port of Aden needs to support the port with the procurement of spare parts for the port equipment. Next to the spare parts, the warranty issues on new equipment must be resolved. In both cases, the obstructions put in

place by the coalition forces in Yemen are a hard to overcome challenges. Easing these limitations will allow the port to improve operations in the coming period.

2. Training of maintenance staff also needs to be improved on a high priority basis. Recently procured equipment requires a high level of training of maintenance staff. The war has restricted suppliers willing to send trainers to the port to train maintenance staff on how to maintain the new equipment. This issue is not easy to resolve, given the current situation in Yemen. Sending staff for training to the suppliers could be a possible solution. The obstacle to this solution is the fact that most of the embassies of the home countries of the suppliers are closed in Yemen and cannot provide visas for the staff to attend training events.

3. Commercial Policy: On average, the container yard is stacked between 80% and 90%, with an average of 86%. During the process of discharging containers, the yard is sometimes occupied at a level of over 100%. This results in containers temporary being stacked in unofficial stack locations, with associated risks of containers getting lost. This high yard occupancy results from the consignees of the containers leaving the containers in the port for extended periods of time. For them, the container yard is a cheap and safe storage location. By having the commercial department of the port contact the clearing agents of the consignees to discuss the reasons for the handling delays, the consignees might be persuaded to remove their containers from the port as soon as possible. This can be done by giving discounts for swift pick-up in contrast to punishing late pick-up. This might also convince the consignees to collect their containers as quickly as possible.

4. ACT Heavy Hook Improvement: During vessel discharge, the plan is to prioritize any available ITV (empty chassis) at the vessel to serve the heavy hook in situations where this hook is in danger of waiting to be serviced during vessel discharge operations. The method varies as appropriate, but they all require a visual ID of the heavy hook such as using a red flag, providing quayside control by Tallyman, Vessel Foreman, and response from ITV drivers. This method improves the long crane GMPH, MHPM, and BMPH. The plan is to minimize quay crane waiting time for containers scheduled to be loaded during vessel loading. Here the yard planner needs to review the crane work program for the long crane on the vessel, identify the containers to be loaded from the yard, and schedule the urgent clearance of any over-stowed containers in the stack. This needs to be carried out before the containers are scheduled to be loaded.

5. Customs Day-shift challenges: Another delaying factor for the port is the fact that the customs officers at the gate of the port, who control and check all passing cargo, only work during the daytime. Although the terminal is receiving and sending containers from/to the waterside on a 24/7 basis, the landside operations that accommodate similar container volumes as the waterside will have to handle all these containers in just eight working hours. High-level government discussions between Customs officers and Port officers will have to take place to find a solution for this hugely delaying factor for the day-to-day operations of the port.

6. Operations Training: Without real-time data during operations, planners are not able to immediately rectify any change or deviation from the operations team. This results in an operational deviation from actual plans by the operations department and more double moves being added, giving longer crane travel times and ultimately less operational efficiency. If the containers are stacked at the optimum location, then the retrieval time of containers, waiting

time, and cost of the delivery truck will also be reduced. Therefore, it is recommended that the operations team strictly applies the plans developed by the planners to achieve better stacking and retrieval outcomes. This is achieved by synchronizing operations during discharging and loading, with training provided in the use of radios, templates, and commonly shared drives.

7. Operations & Planners Communication SOPs: Communication of best practices at the terminal is crucial for operational efficiency. Focus vessel exercises planned in March and May 2021 are expected to result in many findings, where communication challenges usually surface. This allows for reviews of the SOPs in the short term to optimize inter-departmental communication.

8. Terminal Real-time Information: The tracking and tracing of container movements at the yard are currently done by means of handwritten paper slips updated at the end of container transportation or relocation. This paper slip is then used to transfer the stacking information of containers into the TOS. This manual process has a high risk of container stacking location information getting lost in the process. This, in turn, will result in repetitive and time consuming search missions by port staff in the yard to find a missing container. This must be done before the container can be handed over to the consignee, or stacked on a vessel if the container is to be exported. Therefore, Wi-Fi connectivity must ensure real-time updates are available in the system through OPS handheld devices. Installation of wireless connectivity at the port by installing access points to the ICT network in the operational areas of the port, in combination with the installation of Vehicle Mounted Terminals (VMT) on operational container handling equipment, will increase the port's efficiency dramatically. The installation of a Wi-Fi system in combination with VMT's will eradicate the need for a paper stream to control container flows in the terminal.

9. Truck turnaround time: The external truck turnaround time in table 3 above is 240 minutes for both FCL and MTY deliveries. With an average of 90 minutes per task, the maximum turnaround time must be brought down to 180 total cycle time. To do that, quick operations must take place to find and deliver every container. The operations department needs to roll out barcode labeling and scanning to mark containers using handheld devices. This will significantly reduce track and trace time and therefore lower external truck time, which is very high compared to today's KPIs. The wireless system also plays a role here by allowing the port controllers to pinpoint the exact location of any container on the port at any given time.

10. TOS: An upgrade of the Terminal Operating System to the latest version of the software is considered, but it is not urgent. Such an upgrade will bring new functionalities for its users and will allow the port staff to work more efficiently, but will have minimal to no immediate effect on the overall efficiency of the container terminal provided that the other measures given in these recommendations are taken. Updating the current TOS modules and adding extra features would be the right way to achieve initial gains. The ACT is currently discussing with DP World enhancements that will require a GAP analysis, system configuration, roll-out, training, and go-live. In due course, the replacement of the existing Zodiac TOS, rather than an upgrade, will bring significant improvements in the working efficiency of the container yard operations.

11. Yard Infrastructure: Currently, the yard space at the western end of the quay is used as an empty container stack with no pavement in this area. The port master plan indicates the need for container terminal expansion in this area. It would be better to lay a solid foundation on that

area rather than to invest in heavy-duty equipment purchase and maintenance. Standard port equipment such as tractors and reach stackers must be able to drive on this surface without the risk of damage to their tires, suspensions, etc. The capital required to procure such equipment can better be used to install a solid pavement for this area of the yard.

12. Terminal Tractor / Terminal Chassis Allocation: The current quay crane productivity of 13 moves per hour results in high vessel discharge time and limits the berth capacity in the long run. Therefore, increasing terminal tractor allocation per quay crane supports the general productivity in the long run.

13. Container Terminal Equipment Ratio: As per Annex II below, 8 out of 12 RTGs are operational. This is equivalent to a current STS to RTG ratio of 2. The optimal ratio for the current yard utilization at the ACT should be 2.5, equivalent to 10 operational RTGs. Considering the average RTG performance for loading/unloading trucks of 15-18 moves/hr., the current yard productivity per RTG of 17 moves/hr is within this range. Since the quay crane capacity at the current throughput is not maximized, it is safe to consider that not having the right RTG to STS ratio is not a major bottleneck today, especially given that 4 RS and 1 EH are available. However, ten operational RTGs and 2 EHs are required to sustain the current yard utilization ratio.

14. Planning Department Expansion: Planners perform all sub-department tasks that include vessel planning, yard planning, and ITT planning for CFS operations. This ensures that all planners can perform all tasks with a lower risk of a lack of coverage if any staff are absent. However, to better focus on real tasks, it is recommended that a cargo controller should be added to each planning team to act as project coordinator for documentation control with vessels, agents, and operations units. Annex V shows the various tasks the cargo controller does to ensure the quality of data in a timely manner

15. Yard Layout Revisit: Based on an already established workable stackyard ratio, current dwell time for FCL and MTY, the terminal layout in figure 3 above should be revisited to see if the container stacks can be reconfigured to reduce RTG travel distance and achieve higher stack utilization. A reconfiguration of some back-to-back RTG stacks may allow for extra capacity. This will significantly impact yard utilization and performance, allowing better overall terminal productivity.

ANNEX I – ACT CAPACITY CALCULATIONS

ADEN CONTAINER TERMINAL 2021 CAPACITY CALCULATIONS		
	ACT	
Number of Cranes	6	5 Operational
Quay Length	700	M
Crane Density 1 per	117	M for 6 Cranes
Annual Crane Production Lifts	70,000	ANNUAL for 5 Cranes
Volume Lifts	420,000	CTR
TEU Ratio	1.5	
Volume in TEU	630,000	
Transshipment	1%	
IMP/EXP	99%	
T/S volume in TEU	6,300	
IMP volume in TEU	311,850	
EXP volume in TEU	311,850	
T/S dwell time to ship to ship	7	
IMP dwell time	10	
EXP dwell time	12	
Operation height for T/S	3	
Operational height for IMP	2.67	
Operational height for EXP	3	
Ground slots for T/S	20.14	
Ground slots for IMP	3,198	
Ground slots for EXP	3,418	
	6,635	Required Ground Slots

ANNEX II – EQUIPMENT LIST, ADEN CONTAINER TERMINAL

Based on March 8, 2021 information

EQUIPMENT TYPE	CAPACITY	COUNT	OPERATIONAL
STS (FANTUZZI)	40T	4	4
STS (LIEBHERR)	TWIN 65T /SINGLE 50T	2	
STS Spreaders	40T	3	1
RTGs	40T	12	8
Reach Stackers	40T	5	4
Empty Stacker/Handlers	9T	3	1
Forklifts	2.5T	2	2
Forklifts	5T	5	5
Forklifts	15T	1	1
Terminal Tractors (Magnum)	75T	2	15
Terminal Tractors (Mafi)	65T	9	
Terminal Tractors (KalmarT2)	75T	12	
Terminal Trailers (DYMAX) (20FT)	25T	5	16
Terminal Trailers (DYMAX) (45FT)	40T	23	
Terminal Trailers (HOUCON)	75T	12	
Diesel Tanker (international)	15000LTR	1	1
Diesel Tanker (QASSION)	20000LTR	1	1
Sludge Tanker (international)	5000LTR	1	1
Sludge Tanker (QASSION)	10000LTR	1	1
man lift (GLJ)	21M	1	1
WATER TANKER	10000LTR	1	1
ROAD SWEEPER	-----	1	1
AMBULANCE	------	1	1
FIRE TENDER	------	1	1
MOBILE CRANE 60 Ton	60T	1	1

ANNEX III – OPERATIONS CHECKLIST

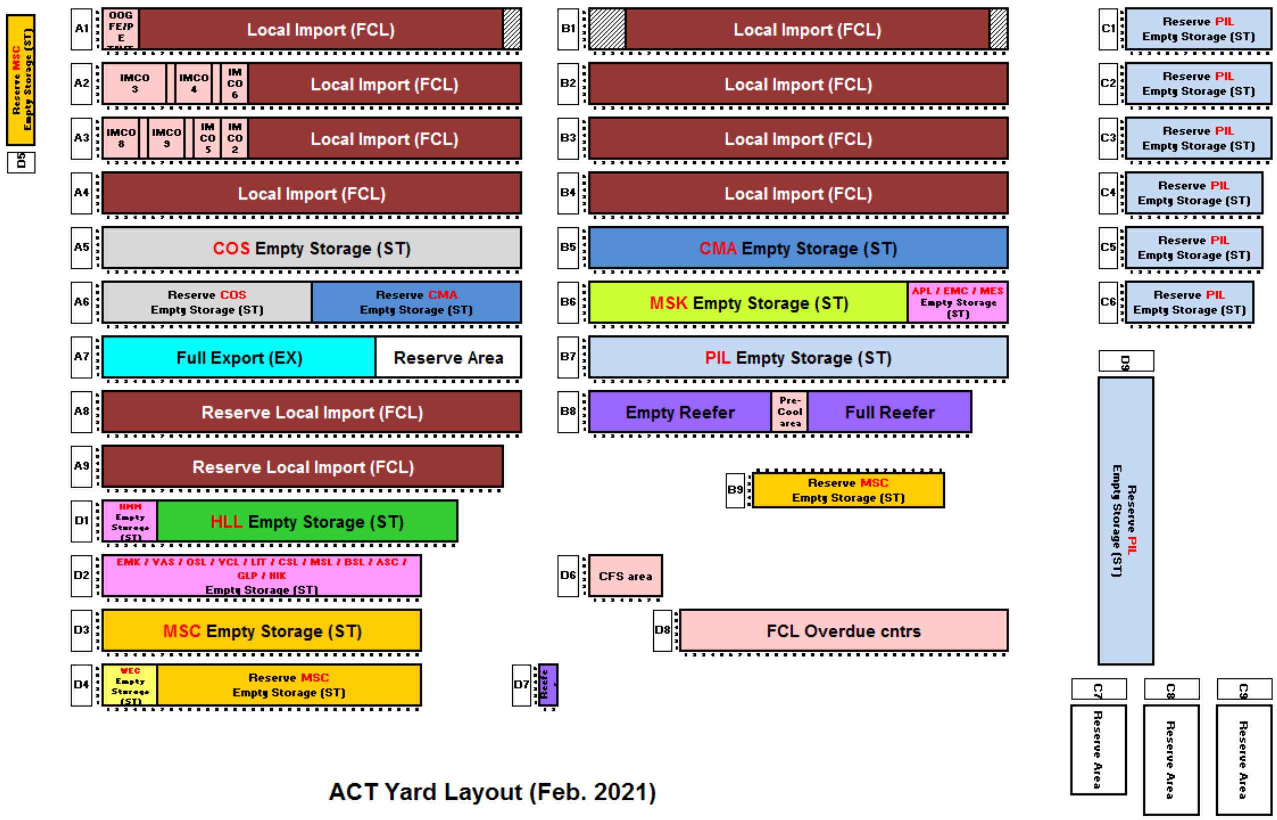
1. Operations
    a. Berth Operations System Module
        i. IT System, Planning, Load, Discharge Module
        ii. Trucking System Module
        iii. Berth Crane, Loading, Discharging Equipment Module
    b. Vessel Operations System Module
        i. Vessel Planning
        ii. Stevedoring System Module
        iii. Vessel Crane Operations
    c. Yard Operations System Module
        i. FCL yard Operations
        ii. Yard Stevedoring
        iii. Terminal Tractors Module
        iv. Yard Equipment
        v. Yard Planning Module
    d. Gate Operations System Module
        i. Customs Inspection, Scanner
        ii. Truck Waiting Area Module
        iii. Appointment and Cargo Delivery Module
2. Technical
    a. Equipment
        i. Yard Equipment
        ii. Berth Equipment
    b. Planned Maintenance
    c. Work Shop
    d. Equipment Cleaning Facility
    e. Warehouse and Spare parts

ANNEX IV – PLANNING

Planner Checklist and Orientation Meeting March 1 - 7, 2021

I. TERMINAL SPECIFICATIONS

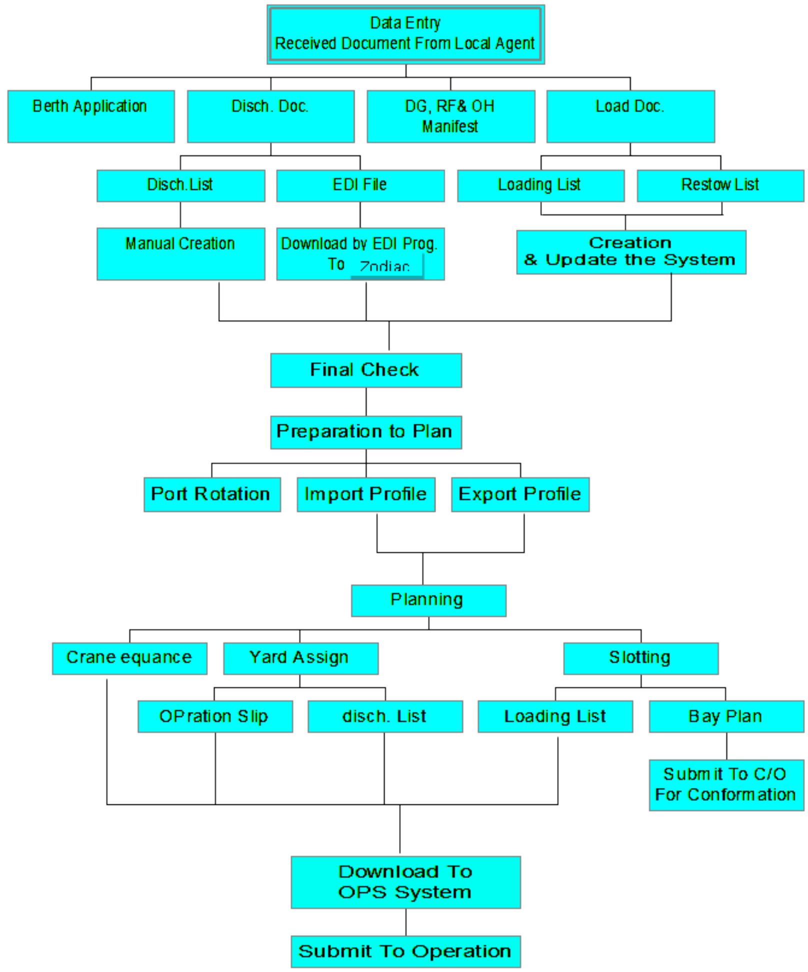
1.1. TERMINAL LAYOUT



ACT Yard Layout (Feb. 2021)

2. PLANNING OVERVIEW

1.2. PLANNING PROCESS OVERVIEW



1) Vessel Planning Process Overview & Operating procedures

A) Prior vessel arrival

1 Confirm the "berth-side to" and ETA of the vessel.

2 Check receipt hardcopy stowage instructions for any missing information.

3 Compare number of load / discharge / empty / reefers with numbers in ZODIAC.

4 Check restows list and numbers to discharge/load.

5 Identify the containers to be restowed and plan restow operations.

6 Check the number and the specific cranes that are assigned for this vessel call. Start sequencing cranes to ensure the numbers of moves per crane are in line with the number and times the cranes are allocated for the vessel. Ensure the planned productivity is used. When sequencing the cranes consider crane clashes, crane availability in terms of time and reach, restows, booming of cranes, and prayer times/shift changes.

7 Check current yard layout and ensure location for discharged units are planned as set.

8 Start loading the vessel considering:

- Berthing position
- Container yard positions.
- Crane sequence.
- Load-out sequence, avoiding clashes/congestion and extra yard moves.
- That restows are planned, taking into account the time of discharge and load.
- Stack weights, under-deck clearances, IMO separation, and reefer and OOG stowage.
- Stability and trim concerns

9 Print following papers for papers for Chief Officer Approval:

- Berth Chart
- Discharge List
- Scan Plan
- Load bay-plan (this happens later at the ACT, after vessel arrival)
- Restows list
- Crane sequence
- Special Container List

10 Distribute discharge plan and work sequence to Vessel Controller / OPS Unit.

C) Upon vessel arrival and during vessel stay.

11 Extract O/B Baplie and print out loading bay plan to be discussed with the C/O

12 If necessary, revise the load plan to comply with Chief Officer's requirements and print new bay plans for the vessel supervisor.

13 Hand overloading plan to the vessel supervisor.

D) After vessel completion operation.

14 Ensure that all the containers are updated and entered into ZODIAC

15 Deliver the final loading bay plan to the ship/chief officer.

16 Create Out-Bound Baplie/chief officers, agents.

17 Print final discharge, load-lists/recaps, and bay-plan for the vessel file.

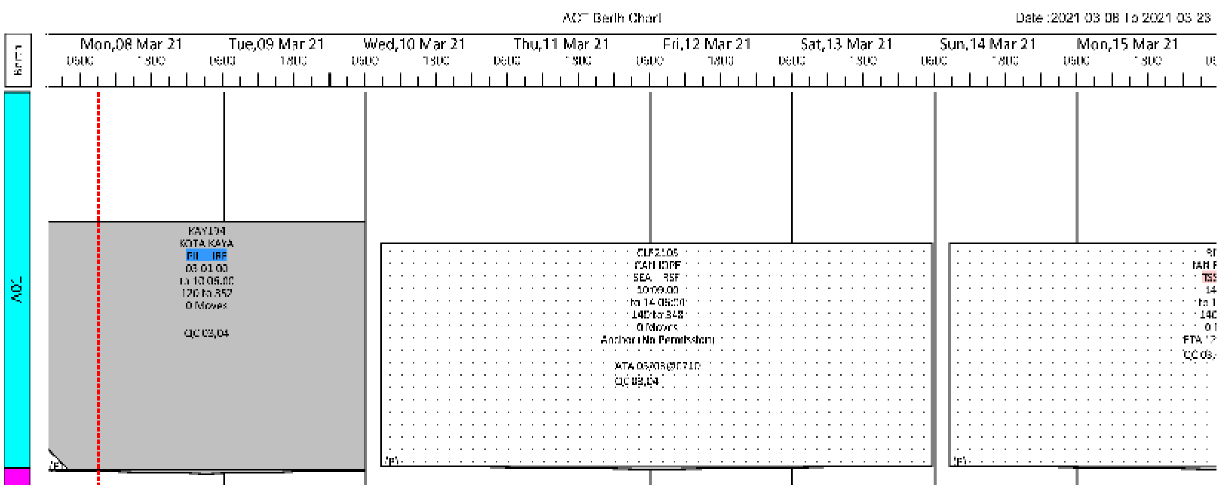
18 Ensure that over landed, short landed, and short shipped containers are communicated to the vessel operator and are updated in the TDR report form.

19 Check the completeness of the information in the vessel file according to its cover checklist.

2) Vessel Planning Work Instruction

A) Pre-arrival stage:

The vessel schedule should be updated according to the daily vessel schedule received by the Agent, and the Vessel Planner should update the vessel schedule in the ZODIAC system.



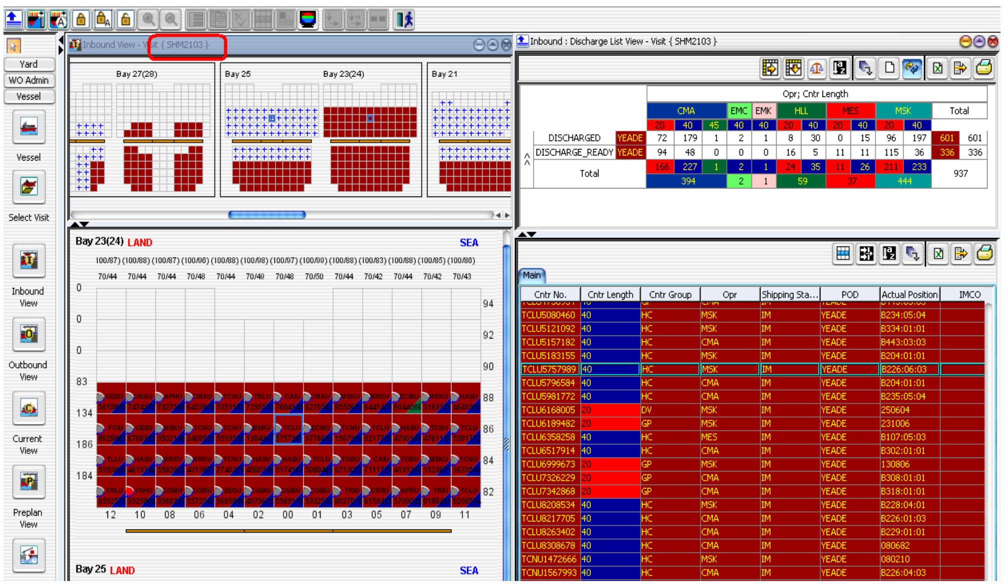
B) Planning phase:

B.1) Discharge planning

The vessel stowage must be checked in ZODIAC for any bad stowage existing should revert to the line operator and correct it before vessel arrival. After running the Baplie EDI successfully ensuring discrepancies and errors are eliminated. The planner is to sequence the containers respecting the berthing side, equipment type, and size and placing them in the logical block by selecting all the import containers to discharge them to the planned block to allow the yard planner to maintain the proper allocation filter for these containers. The YEADE Discharge Summary, discharge list, inbound summary, and special container lists are then ready.

B.2) Load Planning process:

Planner receives the Shipping Instructions in manual hard copy and inserts this into the system. A similar process to the discharge afterward. Once the line operator approves the vessel loading list, all loading projections are received, avoiding bad stowage. The special lists are to be received (IMO list with IMO class and departure position for each hazard class, OOG list with dimensions, reefer list with temperatures) after comparing the loading list recap and the loading projection recap and making the required adjustments. The planner can start loading the containers. Open the requested vessel to load and ensure that the vessel profile window is in Stow mode. The vessel planner is to arrange the loading list by customizing all needed parameters for planning. Select the containers with specific parameters needed and start to stow them in the vessel scan view by using the Power Flow tool, keeping in consideration the yard location, equipment type, and crane sequence to manage a highly efficient operation.

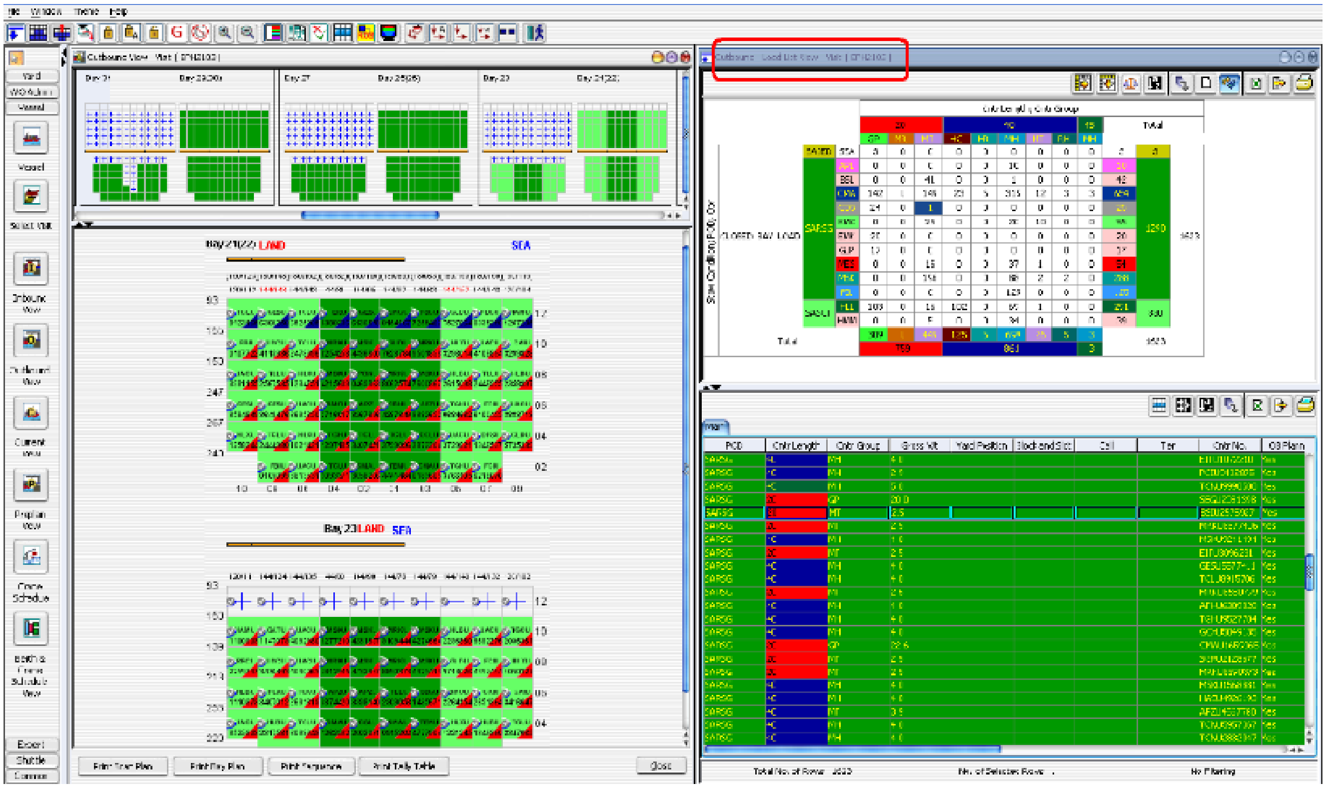


B.3) Preparing crane worklist:

Create the crane worklist by determining the working shift first in the "maintain work shift" and prepare the crane worklist by assigning the correct QC's and proper number of QC's to (avoid crane clashing and assure smooth operation)

C) Arrival Stage:

All special lists of OOG, Reefer, IMO, LCL, and OOG containers, and Copies of discharge documents: i.e.: scan plan, stow plan, discharge list, and crane sequence should be delivered to the OPS Unit.



Zodiac

CRANE SCHEDULE REPORT

Date of Printing: 07-Mar-21 10:36:35 | Shore Crane Name: CC6 | Berth: A02

Vessel : TSS SHAMS | Visit: SHM2103 | ETA: 05-Mar-21 15:45:00

Start ON ARRIVAL / At : ON ARRIVAL | Direction: PORT

LD = (597/53/544) DG = (455/316/139) Total = (1052/369/683)

Seq	BayGroup	Deck	Oprt	Qty	Mins	Acc Qty	Acc Mins	Bal Qty	Status	Done	IP	Pending	Sp Cntr	Remarks
10	11(39, 40,41)	A	DG	68	185	68	185	1052	Completed	68	0	0		
20	12(43, 44,45)	A	LD	53	144	121	329	984	Completed	53	0	0		Boom UP
30	10(35, 36,37)	B	LD	71	193	192	522	931	Ready	0	0	71	40xTW	Boom DOWN, S L C Lids Off : 35B 36B 37B, S L C Lids On : 35B 36B 37B
40	10(35, 36,37)	A	LD	52	141	244	663	860	Ready	0	0	52		
50	9(31,32, 33)	A	DG	60	163	304	826	808	Completed	60	0	0	2xRF	
60	9(31,32, 33)	B	DG	98	267	402	1093	748	Completed	98	0	0	1xDM	S L C Lids Off : 31B 32B 33B
70	9(31,32, 33)	B	LD	83	226	485	1319	650	Ready	0	0	83	52xTW	S L C Lids On : 31B 32B 33B
80	9(31,32, 33)	A	LD	52	141	537	1460	567	Ready	0	0	52		Boom UP
90	8(27,28, 29)	A	DG	15	40	552	1500	515	Completed	15	0	0	1xDM	Boom DOWN
100	8(27,28, 29)	B	DG	56	152	608	1652	500	Ready	0	0	56	28xTW	S L C Lids Off : 27B 28B 29B
110	8(27,28, 29)	B	LD	91	248	699	1900	444	Ready	0	0	91	60xTW	S L C Lids On : 27B 28B 29B
120	8(27,28, 29)	A	LD	52	141	751	2041	353	Ready	0	0	52		

CNTR SUMMARY

			Cntr Length				
			20	40	45	Total	
X	DG	OTHERS	188	260	1	449	449
	LD	OTHERS	212	385	0	597	597
	Total		400	645	1	1046	

	TIME	DATE	HOURS	HEIGHT(M)
HIGHWATER				
LOWWATER				
HIGHWATER				
LOWWATER				

SIGNATURE

NAME

DESIGNATION

Page 1 of 2

Planners follow up with getting approval for the loading plan from the chief officer and modify the plan if requested by the chief officer and after discussion and produce the adjustment to secure approval for the first plan.

D) During the operation stage

If any adjustments are needed during the loading operation, the planner is to get the second approval for the loading plan, recheck the sequence of the containers, re-sequence the crane worklist, and recall all the Documents from the OPS Unit, with new documents printed and distributed.

E) Departure stage:

The planner is to extract the Outbound Baplie and generate the final loading list, scan plan, and stow plan to be delivered to both Agent and Chief officer.

3) Yard and ITT Planning process overview and operating procedures

A) Yard Layout

1 Review current yard layout and allocations of containers which currently assigned for:

- Import containers
- Empty containers
- Export containers arrived for weekly vessels

2 Update the yard allocations in ZODIAC on a daily basis for Receipt of full Export containers via the gate, based on the following:

- Vessel Name
- Voyage number
- Port of Discharge
- Weight Class (by hand from the gate) not fully tracked
- Size/ type/ height

3 Update the yard allocations in ZODIAC on daily basis for receiving Empty Containers Via Gate Based on the following:

- Size
- Type
- Height
- Container Line
- First-in, first-out basis

4 Review ETA of vessels and Berthing Placement of the vessel and allocated area for the weekly plan

5 Review cargo flow for the week by monitoring the work done on the previous week.

6 Plan cargo flow for the coming week to re-position currently misplaced containers.

B) Yard movements

Create work queues/orders for any housekeeping that needs to be done for fine-tuning the yard layout.

C) ITT Planning SOP: CFS related operations

For EMPTY containers and local load plan (import from the vessel), the planner carries out the process. For MTY containers received from outside the terminal, the gate operations unit will plan their storage locations in the yard.

For FCL, Yard planning carries out the work, noting that direct delivery is allowed as per the planners' schedule).

ANNEX V – PLANNING ENHANCEMENT

CARGO CONTROLLER DOCUMENTATION PROCESS OVERVIEW

Responsibility: Cargo Controllers in the Planning Department are needed to support quality service for both vessel and yard planning by providing data to the planning department through communicating with shipping lines for early discharge and load requirements.

DISCHARGING

A) Prior to vessel arrival

1. 24 hours prior to the vessel's estimated arrival time (ETA), the shipping line must send the discharge instruction, which should include the following:
   - Discharge list
   - IMO list
   - Reefer list
   - OOG list
   - Discharge EDI

2. If the deadline passes and no discharge instructions have been received, proactively contact the relevant shipping line and request them to send it urgently.

3. Advise the relevant shipping line of any discrepancies for their clarification.

4. Make updates in the ZODIAC system as per Discharge documents received.

5. Deliver the discharge instructions to the yard and vessel planner and inform them of any special cargo.

6. Communicate with the Planning Manager and planners in case of issues that prevent operations from being processed in a timely manner.

B) During vessel operations.

7. Changes to the discharge program can only be made after written confirmation from the shipping line and after agreement from the duty Shift Manager.

C) After vessel departure.

8. Update all the data for vessel stay into the ZODIAC system.

9. Check and confirm the total number of containers actually discharged (including restows) by checking the information received with the tally sheet from the execution team.

10. Update the TDR with discharge details and compare it with the ZODIAC Reporting system to ensure all containers are accounted for correctly.

11. If any service failure is noted, investigate causes and advise the relevant shipping line immediately.

12. Update the short landed and over landed containers into the system and inform the vessel operator.

13. Close vessel file.

14. Update the monthly and daily statistics with discharge details for each particular ship.

LOADING

A) Prior to vessel arrival

1. 24 hours prior to the vessels estimated arrival time (ETA), the shipping line must send the load instructions, which should include the following:
   - loading list
   - loading scan plan
   - empty loading figures
   - Special Cargo List (OOG, IMO, Reefer, etc.)

2. If the deadline passes and no load instruction have been received, proactively contact the relevant shipping line and request them to send it urgently.

3. Advise the relevant shipping line of discrepancies for their clarification.

4. Make updates in the ZODIAC system as per Loading Documents received.

5. Deliver loading instructions for yard and vessel planners when received and inform if there is any special cargo to be handled.

6. Communicate with the Planning Manager and planners to prevent operations from being processed in a timely manner.

B) During vessel operation

7. Additions or Changes to the load program can only be made after written confirmation from the shipping line and after agreement from the Planning Manager.

C) After vessel departure

8. Update all the data for vessel stay into ZODIAC.

9. Check and confirm the total number of containers actually loaded (including restows) by checking the information received with the tally sheet from the execution team.

10. Update the TDR (Terminal Departure Report) with load details and compare it with the ZODIAC Reporting system to ensure all containers are accounted for correctly.

11. Update the short shipped and overloaded containers into the ZODIAC system and TDR and inform the shipping line agents.

12. If any service failure is noted, investigate causes and advise the relevant shipping line immediately.

13. Twelve hours after departure, send the TDR to the shipping line for confirmation.

14. Close the vessel file.

15. Update the monthly and daily statistics with load details for each particular ship.

ECONOMIC RECOVERY & LIVELIHOODS PROGRAM (ERLP) - YEMEN

ANNEX 27

MARINE OPERATIONS AUDIT REPORT

March 2021

Prepared for the United States Agency for International Development, USAID Order # 72027920M00001

USAID/Yemen - Economic Recovery & Livelihoods Program (ERLP)

The Pragma Corporation, 116 East Broad Street, Falls Church, VA 22046

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LIST OF ACRONYMS

AASTMT	Arab Academy for Science, Technology and Maritime Transport, Alexandria
ACT	Aden Container Terminal
AGT	Aden Gulf Terminal
ARC	Aden Refinery Company
ASD	Azimuth Stern Drive (tug propulsion system)
DGPS	Differential Global Positioning Systems
DoC	Document of Compliance
DWT	Deadweight Tons
FiFi	Fire Fighting
FFE	Fire Fighting Equipment
GLOSS	Global Sea Level Observing System
HSE	Health, Safety and Environment
IACS	International Association of Classification Societies
IMO	International Maritime Organization
IMPA	International Maritime Pilots' Association
ISM	International Safety Management
ISO	International Organization for Standardization
ISPO	International Standard for Maritime Pilot Organizations
ISPS	International Ship and Ports Security (Code)
LOA	Length Overall
LSA	Life Saving Appliances
MAA	Maritime Affairs Authority
MBES	Multi-beam echo sounder
nm	Nautical miles
OHS	Occupational Health and Safety
OHSMS	Occupational Health and Safety Management System
PSMSL	Permanent Service for Mean Sea Level
PIANC	Permanent International Association of Navigation Congresses[1]
PPE	Personal Protective Equipment
PPU	Portable Pilot Units
QHSE	Quality, Health, Safety, and Environment
RO	Recognized Organization
RoRo	Roll-on Roll-off (ship or berth)
SOLAS	Safety of Life at Sea (Convention)
SMC	Safety Management Certificate
SMS	Safety Management System
ToC	Table of Certificates
UKHO	United Kingdom Hydrographic Office
YGAPC	Yemen Gulf of Aden Ports Corporation

[1] Now known as the World Association for Waterborne Transport Infrastructure

EXECUTIVE SUMMARY

The purpose of this marine audit and assessment is to discuss and capture the current operational state of the marine department, its equipment, maintenance, personnel and to guide the development and optimization of the current status. In cooperation with port personnel, the methodology focused on establishing control over marine services by means of Time, Costs, Scope, Quality, and Risks.

The recommendations given in this section are designed to assist the team responsible for managing marine services as they improve current practices and deal with the problems they face in delivering these services. Annex VII provides the Marine Audit Checklist, which contains actions that can help the Port move towards implementing the level of practice that is commonly found in international ports.

The access channel can only accommodate one vessel at a time that could be seen as hindering productivity. However, the access channel and the time taken to berth and unberth ships at Aden are not factors that limit port capacity but could become an issue in the long run. Meanwhile, maintaining current marine craft in best working conditions, training personnel, planning for capacity growth, and investments in systems and marine crafts are all part of the recommendations generated in this assessment.

The recommendations are designed to assist the team responsible for managing marine services as they improve current practices and deal with their problems in delivering these services. This assessment recommends actions to optimize marine services, categorized as Short-medium, and Long-term recommendations (22), summarized in Table 1 and detailed in Section V of this report.

Table 1: Marine Audit Recommendations

Time Frame	Measures	Implementation Time Frame
Short-Medium Term	1. **Port Standing Orders** – To be reviewed by the Marine Management Team to see if additional Orders/provisions will increase the utility of the document.	6 Weeks
	2. **VTS Training -** Maximize benefit from current VTS and communications training being delivered by YGAPC.	1 Month
	3. **VTMIS Training** – Maximize the impact of training to be delivered by the VTMIS Supplier after equipment installation.	9 Months
	4. **Pilot Training program** – To be conducted by the AASTMT on a model of the Port of Aden installed on their new TRANSAS simulator.	Subject to YGAPC being able to send pilots to Alexandria
	5. **Harbor Master Training -** Through the Nautical Institute Distant Learning course based on their publication 'The Work of the Harbor Master,' and to become a pre-requisite for pilots who wish to become future harbor masters	1 year to complete the first course, then continuous
	6. **Membership of the Nautical Institute -** On a case by case basis, for pilots and harbor masters who wish to keep up to date with developments in the marine world.	1 year onwards, continuous
	7. **Tug and Pilot Boat Crew Training** a. Tug skippers should attend training on the AASTMT simulator, together with the pilots.	When YGAPC can send staff to AASTMT Continuous

Time Frame	Measures	Implementation Time Frame
	b. Written materials on correct boat maintenance to be prepared and training delivered to crews by the Assistant Harbor Master for Harbor Craft Maintenance to reduce equipment downtime. c. Boats to be kept clean and tidy, with any faults in machinery or damage reported immediately, and action is taken to rectify faults before they cause more serious issues. d. Adhere to Standard Operating Procedures, boat Log Books, and Check Lists. Boat fenders to be repaired as soon as they become damaged.	Continuous 1 Year
	8. **Succession Planning -** Investment to be made in the training of future Masters and Marine Engineers to secure a pool of skilled staff, with senior staff mentoring junior personnel.	6 Months, Continuous
	9. **New Port Craft –** A Tug, pilot boat, and mooring boats will all support the delivery of efficient marine services at the Port.	Planning for this to start immediately
	10. **Marine Craft Spare Parts -** Measures to secure spare parts to be revisited by the Technical department to optimize their current Operations and Maintenance Plan (O&M PLAN). See recommendation in Annex IX.	Investment in new craft to be made when funds available
	11. **Hydrographic Survey –** Undertake a complete survey of the port area, and refurbish the survey boat to provide survey services.	Continuous
	12. **Impact of COVID 19 -** Precautions to protect pilots, other marine staff, and port staff generally are in place with continuous updates adopted from world best practices.	6-12 Months, then ongoing
	13. **VTMIS Weather Station -** Port to collect records automatically and provide these to UKHO as part of Yemen's information exchange with UKHO and to allow UKHO to update the Pilot Book.	1 year following installation of the Weather Station, then ongoing
	14. **Marine Craft Records -** Prepare an electronic table of certificates (ToC)	2 Months, then Continuous updates
	15. **Port Navigation Aids -** To be maintained in good condition, with the light on Salil Island on the north side of the anchorage to be replaced.	1-2 Years
	16. **Tide Gauge -** To be checked and returned to use.	3 Months
	17. **Yemen Coastguard -** Port supports YCG implementing marine security measures to help reduce current high War Risk Insurance rates for vessels calling Yemeni ports.	6-12 Months
	18. **Quay Wall Fenders** – Survey fenders on all Port quays and berths to determine where these need to be replaced or refurbished.	3 months, then ongoing maintenance
	19. **Port Contingency Plan -** To be prepared, with training in implementation provided.	6-12 months
Long-Term	20. **VTMIS phase II -** To be funded and installed after the Phase I equipment has demonstrated its capacity.	2-3 Years
	21. **Shallow Triangle in Ma'alla Approaches -** To be removed and given a high priority by the Port during any future dredging program.	Timed for when a new dredging pro-gram is implemented
	22. **Accreditations ISM & ISPO -** ISO 9001 or ISPO are appropriate standards and are therefore recommended for use by the port. Table 3 overview demonstrates relevant accreditations for the port with recommended regimes in green.	2-3 Years

While the Port has been operating for many years under difficult circumstances, in particular since the start of the most recent conflict in 2015, the Marine Operations Department, supported by the

Technical Department, continues to provide marine services that maintain the flow of ships into and out of the Port, with the result that Aden is now handling over 50% of the total cargo flow into and out of Yemen through all sea ports and land border crossings. This is a commendable result.

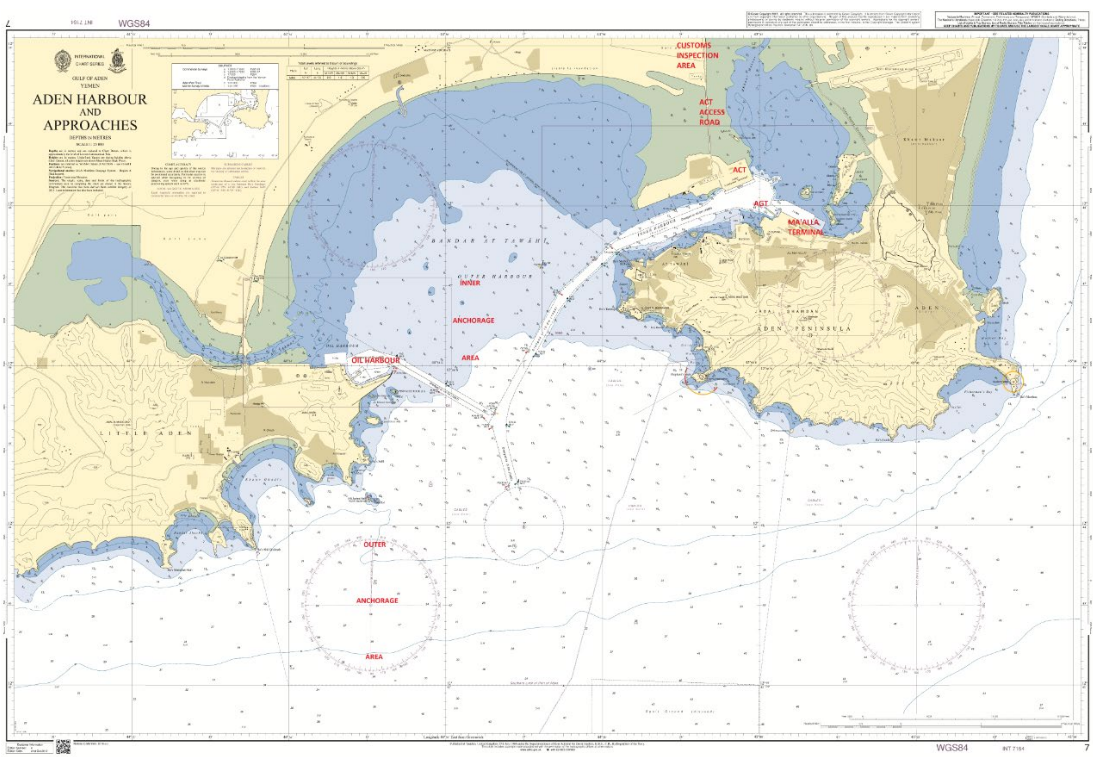
The longer-term risk to the port of a lack of investment in developing a ‘succession strategy’ to secure the services of skilled pilots and engineers to maintain marine craft will be required in the coming decades. Providing training for future pilots and engineers at entry level by investing in young Yemenis with the necessary educational background is essential to the future wellbeing of the Port.

OVERALL PORT DESCRIPTION[2]

The Port of Aden is situated between the promontories of Aden (Jebel Shamsan, 553m) and Little Aden (Jebel Muzalqam, 374m). It is protected from the NE and SW monsoons by these hills and along the northern boundary by land, enabling it to operate without restriction all year. The inner and outer harbors cover a total area of some 130km².

The port consists of the outer harbor, providing outer and inner anchorage areas, the oil harbor at Little Aden on the west side of the bay, and the inner harbor to the east. These harbors are reached by a channel with its entrance between the promontories where the pilot station is located. The outer section of the channel has a depth of 15.0m. From the bifurcation point, a channel heading north west to the Little Aden oil harbor has a depth of 14.7m, leading to four berths for oil tankers at depths of between 11.6 and 15.85m, plus LPG and dry cargo berths and a RoRo berth, all at a depth of 11.0m[3].

Figure 1: Aden Harbor and Approaches (UK Crown Copyright)



2 All water depths in this report are given below chart datum, i.e. zero tide
3 This report is primarily concerned with containers and dry cargoes handled in the inner harbor rather than oil harbor cargoes

The channel to the inner harbor, leading north east from the bifurcation point, has a depth of at least 15.0m, leading to a turning area, depth 15.0m, diameter 700m, south of the Aden Container Terminal (ACT). The inner harbor has ten alongside berths, plus six buoys and three bunkering (dolphin) berths with depths of between 6.7m and 14.0m for general cargo, livestock, and bulk cargo ships. The smallest berths are at the Ma'alla Wharf, Berths Nos. 5 and 6, with depths of 6.7m, used by dhows, coastal livestock, and cargo vessels. The largest is the Aden Gulf Terminal (AGT) Berth No. 1, with a depth of 14.0m.

On the north side of the inner harbor, the ACT provides 710m of the quay, depth alongside 16.0m. The inner harbor is protected by a short breakwater at Ras Marbut, where the harbor control tower is situated. The Harbor Master's office is in the tower.

At the eastern end of the inner harbor and turning area, a short channel of depth 11.0m leads to the Ma'alla Terminal, with a RoRo berth depth of 7.6m and four container/general/bulk berths of total length 750m, depth alongside 11.0m. At the eastern end of this terminal is the Home Trade Quay with two berths, 250m long, and a depth of 6.7m. Facilities at the Ma'alla Terminal include a 7 Ha container storage yard, 50,000 MT capacity bulk silos, and flour milling plant, together with bulk cement storage warehouse and cement silos, with bagging plants and bulk cement pumping systems. Within the inner harbor are also a fishing harbor and a ship repair yard.

Table 2: Structural Port Dimensions

Item	Dimension	Measurement Unit
Maximum Length of the Inner Harbor	5.0	Km
Maximum Length of the Outer Harbor	10	Km
Maximum Width of the Inner Harbor	1.2	Km
Maximum Width of the Outer Harbor	7	Km
Length of Approach Channel to Inner Harbor breakwater	3.5	Nautical Miles
Inner Harbor Approach Channel Depth	15	Meters
Total Port Area (approx.)	131	Square Km
Water area (approx.)	129	Square Km
Land Area (approx.)	2	Square Km
Total Container Yard Area (ACT)	45	Hectares
Total Open Storage Yards Area	34	Hectares
Total Enclosed Storage Area	4.5	Hectares
Oil Storage Tanks	Numbers of Tanks in Various Locations serving the port and its bunkering operations	

PORT LIMITS AND ANCHORAGE AREAS

Port Limits extending south of the harbor area were extended when the approach channel was deepened and are shown on the Aden Harbor and Approaches chart. Anchorage areas are available for ships in the outer harbor, providing water depths from 6m to 40m in good holding ground. Smaller vessels can anchor in the area north of the oil harbor approach channel and west of the inner harbor approach channel. Vessels with a draft of ten meters or more can anchor to the south of the oil harbor approach channel. They generally anchor to the west of the main approach channel to both harbors. Anchorage is prohibited within a radius of 5 cables of the channel entrance and within two cables of any port approach channel.

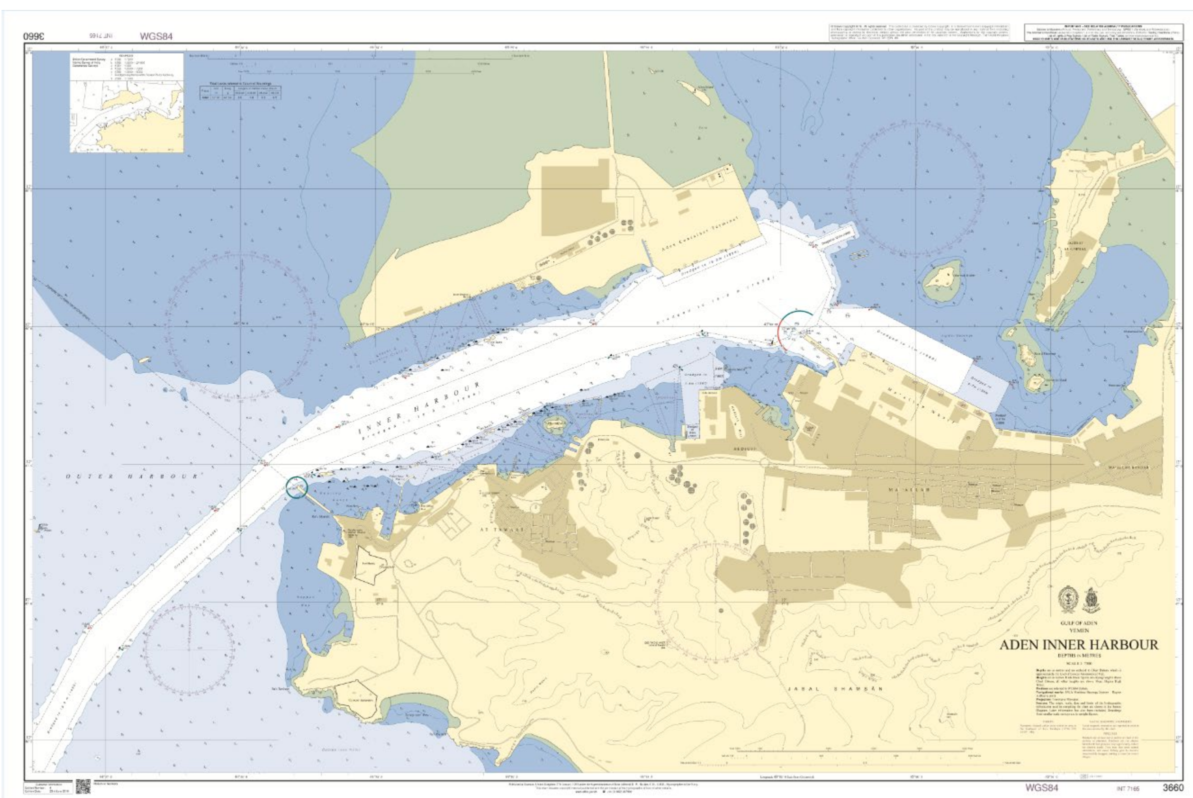
DREDGING AND HYDROGRAPHIC SURVEYS

Major dredging works were carried out in 1997-1999 when the main approach channel to the inner harbor was deepened from 11.9m to 15.0m. The width of the main access channel, originally 183m (600 feet), was not increased, except at bends where the width was increased to improve safety for ships navigating in the channel in accordance with PIANC recommendations. Prior to the dredging being started, a simulation of the proposed new access channel was tested on a simulator to determine if it would be adequate for the size of container ships that the ACT was likely to handle. This validated the design of the channel and confirmed that container ships of up to around 8,000 TEUs could safely use the channel under various wind and tide conditions.

Inside the inner harbor, breakwater channel width increases to 220m, leading to the large and well-designed turning area south of the ACT, width 700m from the face of the ACT to the perimeter of the turning area SSE of the ACT.

The side slopes of the access channels are generally 1:6 and considered to be stable. Navigation buoys marking the channels are placed at the base of the slopes to mark the maximum safe width of the channels.

Figure 2: Aden Inner Harbor (UK Crown Copyright)



From the turning area, a channel with a depth of 11.0m leads to the Ma'alla Terminal. There is a triangle of shallow water at the north side of this channel where some minor dredging works using the port's grab dredger were carried out in 2009, but this work was not completed. The triangle remains a restriction in width available for navigation in the approaches to Ma'alla, marked by a buoy.

Material dredged during the deepening of the access channel and creation of the turning area was used to a) provide new land for the construction of the ACT, b) provide a new area of some 80Ha on the north side of the inner harbor, north of the rubble mound shown on the chart above, and c) provide high-quality material that has been stockpiled on the western side of the ACT to a height of around 4m above the height of the terminal to provide materials for a future extension to the terminal.

On the south side of the channel to Ma'alla is the AGT. Dredging associated with the construction of the AGT was carried out in 2006 to provide a depth of 14.0m on the north berth of the AGT and its approaches and 12.0m on the south berth and its approaches.

A major hydrographic survey of the harbor and its approaches was carried out in 1998-99 when the access channel and turning area were dredged. Data from this survey is shown on current navigation charts illustrating this report. Survey data connected with the construction of the AGT in 2006 is also used on the charts in the area around the AGT.

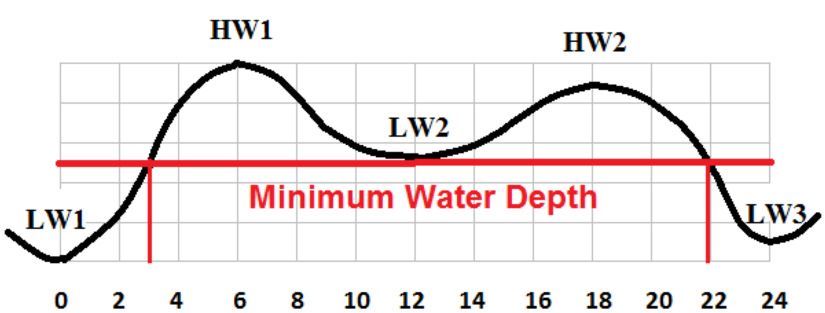
The port currently has limited facilities for conducting hydrographic survey work, as described in the section on marine craft. New hydrographic surveys of the access channels are required to determine whether the side slopes of the channels have been affected by the wash of ships and tugs in the channels and the degree of siltation that these channels have experienced since the last major survey was carried out. Siltation in the channels is generally considered, from historical records, to be at a rate of around 25mm/year, but after 20 years since the last major survey, this estimate needs to be confirmed by new survey data.

TIDES AND CURRENTS

TIDES

Water levels in Aden are a mixture of diurnal and semi-diurnal tides. This means that over a 24-hour cycle, starting with low tide at LW1, the tide rises to the 'first high water,' HW1, falls to a combined height of the diurnal high water and the semi-diurnal low water, the 'higher low water' at LW2, then rises to the 'second high water,' HW2, after about 18 hours and to the third low water at the end of the cycle, as illustrated below.

Figure 3: Tides illustration



As the 'higher low water,' LW2, is a mix of the two tides, this gives ships berthing at Aden a period of around 18 hours when the tide is relatively high. Ships berthing on the rising tide after LW1 can take advantage of the higher water levels over an extended period to discharge and reduce their draughts before LW3, maintaining a safe under keel clearance during this time.

This pattern of tides is seen in the tidal predictions for Aden, produced by the UKHO and made available to the port annually[4]. Aden has tidal records going back to 1883, which are held at the Tidal Observatory in Liverpool, UK. In 2007, the Aden Tide Gauge in the Technical Department area was re-equipped with a radar-based tidal height recording system provided by the Permanent Service for Mean Sea Level (PSMSL) program, allowing Aden to become part of the Global Sea Level Observing System (GLOSS) again. Tidal data was automatically transmitted to satellites that relayed it to a remote monitoring station for data capture. This system is currently not working, but if it can be re-activated, it will contribute to the long-term monitoring of sea levels in the Gulf of Aden.

The tidal range in Aden is between -0.2m to +2.5m, with a mean sea level of 1.39m.

CURRENTS AND RIVERS

Tidal currents in Aden have not often been measured. One set of extensive observations of currents in the inner and outer harbors was conducted at the start of the 1997 dredging and construction works on the ACT in 2007. These measurements showed that tidal current rates are very low in Aden, not exceeding 0.18m/second at spring tide. This confirms what has been observed by the Port for over 150 years, where very low rates of sediment transport have been seen in the harbor area[5]. The current diagrams are shown in Annex II.

Due to the dry climate in Aden and the surrounding area, no rivers discharge into the harbor area. One normally dry wadi discharges on the north side of the outer harbor at Hiswa on the infrequent occasions when there is heavy rain in Aden or the hills to the north of the city.

WEATHER

Thanks to the moderate climate at Aden, the Port is open throughout the year and does not experience weather conditions that would require it to be closed. Occasional weather fronts can bring local heavy rain and strong winds, requiring the container gantry cranes to be locked down and cargo operations to be stopped, but these occasions occur at intervals of perhaps 5-7 years. Changing weather patterns due to climate change, which could bring tropical depressions further west into the Gulf of Aden, will need to be monitored over time.

The dominant weather pattern in Aden is governed by the NE and SW monsoons. The NE monsoon blows from the end of September to the middle of April each year. The SW monsoon starts to blow in May and is fully established by the middle of June. It then blows until the end of August. Between the two monsoons are the inter-monsoon periods in May and September when the sun is close to directly

[4] If new tidal data can be provided by the Port this would help the UKHO to improve the accuracy of its tidal predictions for Aden

[5] During dredging of the inner harbor to provide deeper buoy berths in the late 1800's, dredged materials were dumped in an area in the north side of the outer harbor. The shallower water created by this action is still seen as a spit of material around 4m deep on Chart No. 7 today.

overhead and lower wind speeds, and maximum temperatures are experienced in Aden. Local winds can be generated by heating the hills around the city at all times of the year.

During the NE monsoon, the wind speed varies during the day, but from noon onwards is around force 3 to force 4, dying away in the evening. The wind during this period blows through the inner harbor from ENE to WSW. It also blows around the south side of Jebel Shamsan to blow in a WNW'ly direction across the outer harbor at about force 3 to 4. Wave heights in the inner harbor rarely exceed 0.5m and 0.8m in the outer harbor area during the NE monsoon.

During the SW monsoon, the wind speed also varies during the day, increasing from mid-morning. This monsoon blows directly into the outer harbor from an SSW'ly direction, creating a swell that can be up to 2.0m in height with about 45m between wave crests. With the monsoon well established, the swell enters the inner harbor at lower amplitude, but with the resulting surge causing marine craft moored at the Technical Department to move with the waves.

Ships berthing at the AGT can be further affected by the SW monsoon as this blows through a 'gap' in the hills on the west side of Jebel Shamsan, between the peak and Amal Khal, from a southerly direction. This wind can occasionally reach force 5 or 6 and blow ships onto the south berth of the AGT or off the north berth.

Table 3: Climate table for Aden. Ref WMO No 41480

WMO No 41480

ADEN (12° 50′ N, 45° 02′ E) Height above MSL – 3 m

Climatic Table compiled from 11 to 30 years observations, 1960 to 2000

Month	Average pressure at MSL	Temperatures				Average humidity		Average cloud cover		Precipitation	
		Mean daily max.	Mean daily min.	Mean highest in each month	Mean lowest in each month	0900	1500	0900	1500	Average fall	No. of days with 0.1 mm or more
	hPa	°C	°C	°C	°C	%	%	Oktas		mm	
January	1016	29	23	30	21	76	64	5	4	8	3
February	1015	29	23	30	20	78	64	4	3	4	1
March	1013	31	25	32	22	79	64	4	3	7	2
April	1011	32	26	34	22	80	65	4	3	3	1
May	1008	35	28	36	24	81	62	4	2	2	⊕
June	1004	37	29	38	26	75	54	3	2	1	⊕
July	1003	37	29	38	27	76	57	4	2	3	1
August	1004	36	27	38	25	77	57	4	2	3	1
September	1006	36	27	37	25	79	59	3	2	4	1
October	1011	34	26	35	22	77	58	2	1	2	1
November	1014	32	23	33	20	78	62	3	2	3	1
December	1017	30	23	31	19	76	63	4	3	5	2
Means	1009	33	26	39*	17§	78	61	4	2	–	–
Totals	–	–	–	–	–	–	–	–	–	45	14
Extreme values	–	–	–	43†	15‡	–	–	–	–	–	–
No. of years observations	20	11				11		11		30	

Month	Wind distribution – Percentage of observations from																		Mean wind speed		Number of days with		
	0900									1500													
	N	NE	E	SE	S	SW	W	NW	Calm	N	NE	E	SE	S	SW	W	NW	Calm	0900	1500	Gale	Fog	Thunder
																			Knots				
January	11	12	66	3	0	0	0	⊕	8	0	4	83	13	0	0	0	0	⊕	10	13	0	0	0
February	10	11	60	1	0	0	0	2	15	0	1	75	23	1	0	0	0	0	9	12	0	0	0
March	10	9	63	1	0	⊕	⊕	3	14	0	0	71	27	1	⊕	⊕	0	0	9	13	0	0	⊕
April	9	6	68	2	0	0	0	2	13	0	1	66	32	1	⊕	0	0	⊕	9	13	0	⊕	⊕
May	12	14	35	8	1	4	4	5	20	0	1	36	49	3	11	⊕	0	0	6	12	0	⊕	⊕
June	14	9	10	11	5	11	9	7	24	0	⊕	12	33	7	46	2	0	0	6	12	⊕	1	⊕
July	5	8	11	11	6	27	9	3	19	0	⊕	4	11	6	75	2	⊕	⊕	8	14	⊕	2	1
August	4	7	11	12	4	33	10	3	16	0	⊕	5	11	5	74	4	1	⊕	8	14	⊕	2	2
September	15	9	22	10	2	9	8	6	19	⊕	⊕	21	38	2	34	4	0	0	6	12	⊕	1	1
October	24	14	24	1	⊕	⊕	3	4	30	0	⊕	46	48	3	3	⊕	0	0	6	12	0	1	⊕
November	24	15	41	1	0	0	⊕	1	18	0	⊕	76	24	0	0	0	0	0	9	13	0	1	0
December	23	13	54	1	0	0	0	2	8	0	2	80	18	0	0	0	0	0	10	13	0	0	0
Means	13	10	38	5	2	8	4	3	17	⊕	1	47	27	3	21	1	⊕	⊕	8	13	–	–	–
Totals	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	8	4
Extreme values	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
No. of years observations	11									11									11		11	20	20

* Mean of highest each year
§ Mean of lowest each year
† Highest recorded temperature
‡ Lowest recorded temperature
⊕ Rare
⊖ All observations

Weather data for the Port, from the Red Sea and Gulf of Aden Pilot Book, is shown above. This includes average temperatures and humidity levels over the year together with wind speeds and directions[6].

BREAKWATERS AND QUAY WALL CONSTRUCTION

Aden Oil Harbor is protected by a 1,000m long rock breakwater on the south side that protects it from the SW monsoon. The inner harbor remained unprotected until around 1941, when the inner harbor breakwater, 340m in length, was built to protect the Technical Department and naval berths. This breakwater is a concrete structure, providing access to a navigation beacon at its NW end that marks the south side of the access channel into the inner harbor. This breakwater is protected on its south side by large blocks of concrete and other heavy materials left over from construction projects carried out in the port.

The inner harbor breakwater is an important feature of the port, as it largely protects the Technical Department quays, and berths close to the inner side of the breakwater, from the swell during the SW monsoon. The height of the swell on the north side of the inner harbor is greatly diminished because of this breakwater, generally to a height of 0.7m or less during the SW monsoon at, for example, dolphin berth No. 7.

Aden is not subject to significant seismic movements, although the quay walls and marine structures have been designed to resist low levels of seismic activity. There are occasional tremors that have been noticed and cause concern to residents of older multi-story buildings.

Various types of quay walls have been built at Aden over the years, as listed in order of construction date. The heights of the quay walls are generally 1.44m above the level of High Water Spring Tides.

HOME TRADE QUAY

The HTQ was built in 1955-6. It consists of 250m of the quay, depth alongside 6.7m. The quay is built of mass concrete 'T' blocks, 6.4m in length, with the 'T' at the inner end of the block. The 'T' blocks are laid on the sea bed, one on top of the other to a height of around 7.0m above the sea bed. A cast concrete apron with bollards set into the concrete was replaced in 1990-91 when the HTQ was refurbished after the Ma'alla Terminal berths were completed. The quay is protected with tubular rubber fenders secured with chains and remains in good condition. All cargo worked at the HTQ is handled using ships' equipment or mobile cranes.

DOLPHIN BERTHS[7]

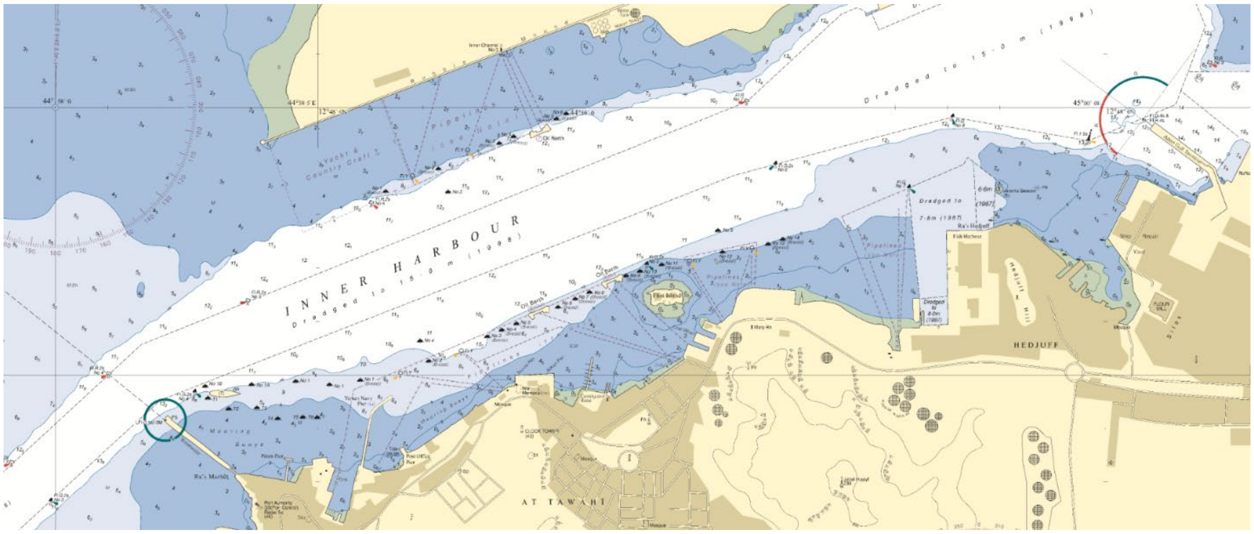
The three dolphin berths were constructed in 1964-5 and consist of two sets of steel piles around 43m in length driven into the sea bed to resist berthing forces, with a cast concrete deck on top of the piles. Between the two sets of piles is a lighter concrete deck carrying valves and pipes used for bunkering ships. The berths are protected with heavy rubber fenders. The piles and deck structures of Berths 6In and 6Out have suffered from heavy corrosion, particularly in the splash zone, and are not currently used by many vessels. Berth 7 on the north side of the inner harbor, operated by the Arab Investment Manufacturing and Trading Company (AIMT) for fuel blending and re-export, was refurbished in 1994-5. New pipes carrying various grades of oil were installed, and the impressed current cathodic protection

[6] When the new VTMIS for the Aden Harbor Control building is installed it will include a weather station to monitor and record current weather parameters at the port

[7] See also section on Arrival, Berths and Water Depths below

system was replaced. It is in much better condition than the two dolphin berths on the south side of the inner harbor.

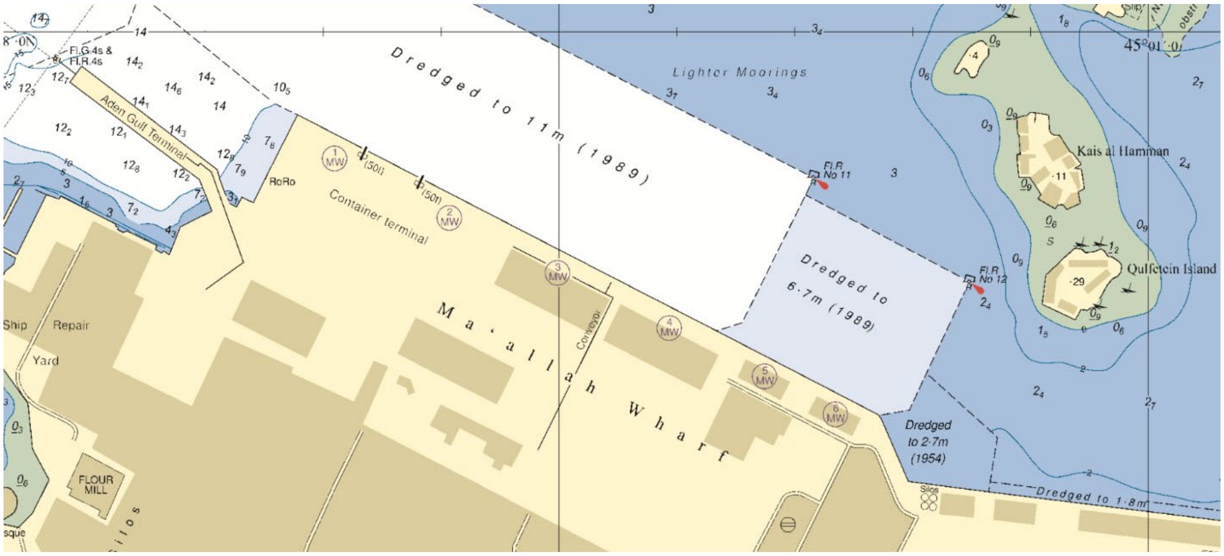
Figure 4: Inner Harbor Bunkering and Buoy Berths



MA'ALLA TERMINAL

The Ma'alla Terminal provided Aden with its first deepwater alongside berths and was constructed between 1987 and 1990. The terminal provides 750m of quay over four berths, with a depth of 11.0m. It is built using sloped concrete blocks laid on a rock and gravel foundation in a trench dredged along the line of the quay, topped by a reinforced concrete apron above high water spring tide level. The area in front of the Terminal was dredged to a depth of 11.0m and width of 280m from the face of the quay. Behind the two western berths, MW1 and MW2, are rails carrying two Ship to Shore container cranes, installed in 1993 and 1995, and 7Ha of paved container storage area. These are not currently in operation, and the crane rails are reported to be in need of replacement before the cranes could be used again. A bulk cargo handling crane on rails is available at MW3. The quay is protected by tubular rubber fenders laid diagonally and secured to the quay with chains. Cargo is worked using ships' cranes or derricks and occasionally mobile cranes for smaller vessels.

Figure 5: The Ma’alla Terminal and Home Trade Quay



At the western end of the Ma’alla Terminal is the RoRo quay and RoRo ramp. The RoRo quay is 150m in length and has a depth of 7.6m, with a 20m wide ramp.

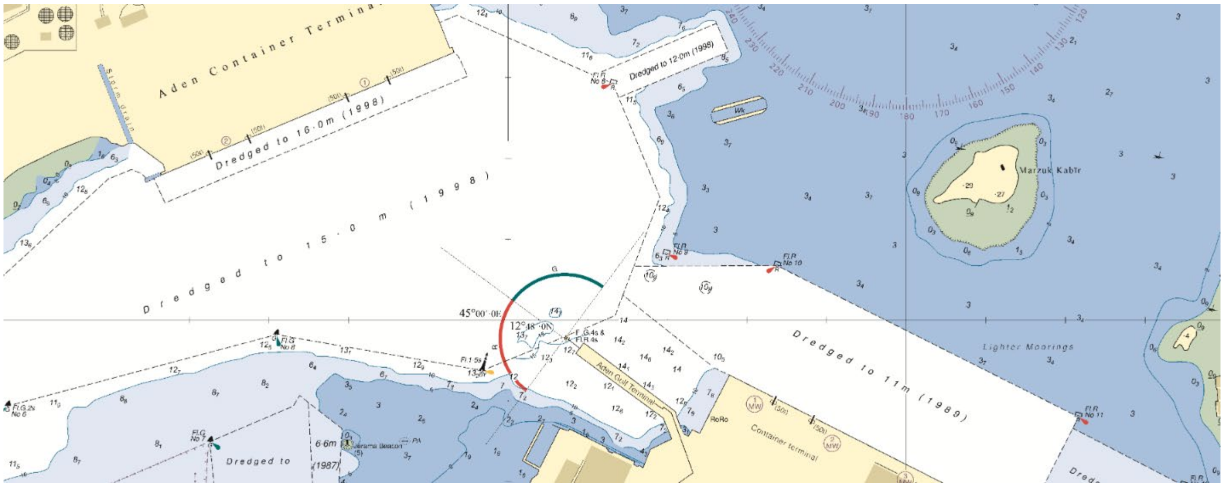
The Ma’alla Terminal and RoRo quay are in very good condition.

ADEN CONTAINER TERMINAL

The ACT was constructed between 1997 and 1999, providing Aden with berths for large container ships and 45Ha of the working yard and support facilities for handling containers. Depth alongside is 16.0m in a dredged pocket. It is served by the 700m diameter turning area. Construction is of mass concrete blocks of up to 130 MT each, laid on top of each other, on a rock and gravel foundation in a trench dredged along the line of the quay to a depth of around 18.0m below chart datum. Tremie concrete was poured into holes left in the bottom blocks (to reduce their weight) after they were laid. Groves cast into the sides of the blocks were also filled with tremie concrete to key the blocks to each other. The lower blocks are topped by a reinforced concrete apron above high water spring tide level. The ACT provides two berths over 710m of the quay, where three smaller vessels can berth together on occasions. The quay wall is protected by large diameter rubber tube fenders with contact plates supported on heavy chains. The quay wall is in excellent condition. The ACT is equipped with six container gantry cranes, three installed in 1999, one in 2001, and two in 2012[8].

[8] 1999/2001 Fantuzzi, 2012 Liebherr. One Fantuzzi crane (1999) was dismantled in mid-2020, 4 remain operational

Figure 6: ACT and Aden Gulf Terminal



ADEN GULF TERMINAL

The AGT was constructed in 2004-6 by the Hayel Saeed Anam Group to provide a private terminal for handling large vessels carrying bulk grain, coal, and other cargoes on the SE edge of the ACT turning area. With the turning area created, only minimal dredging was needed to create the AGT berths and approaches. The main part of the jetty is 255m in length and 28m wide, with a conveyor system under the concrete deck to carry grain to the elevator that takes it to the silos at the eastern end of the jetty. 38m from the western end of the jetty is a mooring dolphin to carry the mooring lines of ships at Berth 1 (on the north side of the jetty), with a depth of 14.0m, and berth 2 (on the south side), depth 12.0m. The jetty is supported on concrete tubular piles driven into the sea bed. The cast concrete deck of the dolphin is supported on heavy steel tubular piles. Both berths are protected by large diameter rubber tube fenders with contact plates supported on heavy chains. The jetty and fenders are in excellent condition. The AGT is equipped with a high-capacity rail-mounted automatic unloader that feeds grain to the conveyor system. The unloader has a capacity of 800 MT/hour and sends grain directly to the adjacent silos.

The Port of Aden, as with all waterfront developments, will need to monitor any changes in mean sea levels over time to determine what impacts, if any, these have on port operations and what actions may need to be taken to mitigate the changes.

TRAFFIC FLOW CAPACITY

The distance from the pilot station to the center of the inner harbor is around 5.5 nautical miles (nm) and from the pilot station to the oil harbor is 2.5 nm. The number of ships that called at Aden in 2020 was around 450 vessels, averaging around 2.5 moves/day over the year. Of these calls, 120 were container ships, 52 called at the AGT, 204 called at the Ma'alla Terminal, and 72 called at the oil harbor.

Allowing an average time of 1.25 hours for a pilot to take a ship from the pilot station to a berth in the inner harbor, and 0.4 hours for berthing, plus 0.25 hours for the pilot boat to return to the pilot bunder, and assuming that the time to berth a ship at the oil harbor, including pilot boat transit, takes approximately the same amount of time, then each ship requires 1.90 hours for one maneuver. As the width of the access channel is 180m, this is not sufficient for ships to pass in the channel, and essentially only one vessel at a time can be handled in the channel[9].

This implies that the maximum number of vessel moves/day is of the order of 12 moves. At present, the number of moves being made per day is 2.5 (i.e., 450 x 2/350 days), so the access channel has more than sufficient capacity to allow the required number of ships to enter and leave the port, and would allow for a significant expansion of traffic before channel widening would be required. It is reported that the port was handling around 33 moves/day in the 1960s when Aden's bunkering business was at its peak, recognizing that the ships in those days were generally much smaller, Aden had 13 bunkering berths, and the channel was somewhat shorter.

In conclusion, the access channel and the time taken to berth and unberth ships at Aden are not factors that limit port capacity.

PILOTAGE, TOWING AND MOORING

Pilotage comes under the Marine Operations Department of the Port of Aden and is compulsory for all vessels over 200 GRT entering or leaving (with certain exceptions[10]). The pilot station for all vessels bound for the oil harbor or inner harbor, unless advised otherwise by Aden Port Control, is immediately south of the channel entrance in Lat 12° 44.00'N and Long 44° 57.00'E, shown by the standard Pilot Station symbol. A circle radius of 5 cables at this position is marked on the chart to indicate that anchoring within this area is prohibited. Regulations regarding signals to be shown and rigging pilot ladder during different seasons of the year are contained in Standing Orders issued by the Port Officer and explained in Port Regulations.

Pilots in Aden must have completed the sea service required to sit for the examination as Master Mariner at a recognized maritime training collect and to hold a Certificate of Competency as Master Mariner before being accepted as trainee pilots at Aden[11]. After being accepted, trainee pilots are put through a long-established program to learn the business of piloting in Aden, overseen by the Harbor Master and his deputies, and by senior pilots. In accordance with training schemes in other ports worldwide, pilots start training under the supervision of a senior pilot, piloting smaller ships in the inner harbor during daylight hours.

As experience is gained, pilots under training are allowed to handle larger ships, carry out day and night piloting operations, and pilot a wider variety of ship types to more berths in the port. Each of these berths requires a particular series of maneuvers to berth and unberth safely. Some buoy berths require that an anchor be dropped in the correct location to hold the offshore side of the bow clear of the inner buoy and allow the ship to use the anchor on departure. Over some years, the trainee pilot is promoted to junior pilot, then to pilot, and eventually to senior pilot. At this stage, he can pilot any ship calling at Aden at any time of day or night. Details of the training provided are given in Annex II.

A wealth of information to guide pilots at all stages of their careers is contained in the Standing Orders of the Port of Aden, a summary of which is attached as Annex III. It gives information on particular

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[9] The channel size would need to be increased to around 280m width to allow two ships to pass

[10] Dhows and some small regular callers may be permitted to enter port without a pilot, but these have no material impact on the numbers reported in the Audit

[11] In a very small number of cases equivalent qualifications issued by navy or coastguard services, together with appropriate experience at sea, are accepted

berths, advice on how to handle ships at these berths, and advice on particular difficulties that may be encountered during berthing and unberthing.

The control tower provides the office for the Port Officer and General Manager of the Marine Operations Department. He is supported by a Deputy General Manager/Harbor Master and by Assistant Harbor Masters for a) Vessel Traffic Management, b) Harbor Craft Maintenance (Technical Department), and c) the Oil Harbor. There are currently 12 pilots on the roster, and of these:

- There are no trainee pilots at present;
- There is one junior pilot;
- None are classed as pilots;
- There are eleven senior pilots able to handle all types and sizes of vessels at any time of the day and night.

Pilots work two shifts, a day shift, and a night shift, with two pilots on each shift. Shifts are from 0700 to 1900 and 1900 to 0700 every 24 hours. There is accommodation for pilots on the upper floor of the port control tower where pilots can rest between piloting operations. If a pilot is not available for his shift for any reason, another pilot from the roster is called upon to take over that shift. If another pilot is not available, the Assistant Harbor Master for vessel traffic management takes the shift. The Marine Operations Department Staff Organigram is shown in Annex IV.

All staff in the Marine Operations Department are employees of the Port's Corporation under the Ministry of Transport. Staff is covered for medical treatment and sickness per the laws of the Republic of Yemen and for death or injury while working and/or using vehicles owned by the Ports Corporation.

Pilots are given opportunities to stay up-to-date by attending courses at the Arab Academy for Science Technology and Maritime Transport (AASTMT) in Alexandria, Egypt, to maintain the validity of their Certificates of Competency and keep abreast of advances in technology. Around ten years ago, pilots were sent on training courses at the Lairdside Center of the University of Liverpool for training on the 'full mission' bridge simulator, covering both ships maneuvering and maritime English and (see Annex V).

A simulator is available at AASTMT, where a new TRANSAS Simulator was installed in 2020 with four 'ships' bridges' so that four students, or teams, can practice maneuvers on the simulator at the same time. The Assistant Harbor Master at Aden was in Alexandria in November and December 2020. During that time, the staff at the simulator installed a model of Aden Harbor so that pilots from Aden can be trained in ship operations in their own 'harbor.' This is an important development for the Port of Aden. It is anticipated that this new simulator will provide Aden with opportunities for training pilots and tug skippers at the same time, so that tug skippers can use the simulator exercises to become familiar with maneuvers that are typically carried out at various berths in the port as part of their training, and will be able to practice operations under 'emergency conditions.'

Pilots boarding ships to bring them into port are provided with information on the ship (length, draughts forward and aft, type of cargo, type of engine/s, ship certificates, etc.) that has been provided to the Control Tower by the Notice of Arrival prepared and submitted by the ship's Agent, and directly from the ship by VHF. Pilots then check the accuracy of the information with the captain on reaching the ship to start completing the Pilotage Certificate.

The Aden pilot boats currently in service are not equipped with computer-based equipment for monitoring weather conditions, engine maintenance, etc. Pilots carry handheld VHF sets to communicate with the control tower, ships, tugs, and pilot boats. They are not provided with the sophisticated equipment found in the ports of many advanced countries, such as Portable Pilot Units (PPU) that use Differential Global Positioning Systems (DGPS) to fix the position of the ship being piloted and to provide AIS positions of other ships (and navigation aids) for the pilot without having to rely on ship's ECDIS and related equipment[12]. However, while 'Aden's pilots would welcome state of the art' equipment, the Assistant Harbor Master has noted that equipment such as PPU is not essential because a) the navigation channel is relatively short and the inner harbor breakwater can be seen from the anchorage, and b) dense fog, or haze in storms, is extremely rare in Aden and does not last for long. During such events, all movements are stopped, even when the pilot has already boarded a ship at the anchorage and the ship held at the anchorage until conditions improve.

Pilot boats in Aden have been in service for many years, giving occasional issues with equipment reliability (see Marine Craft below). In comparison to the boats currently used, modern pilot boats have better facilities for the pilots and crew, are more fuel-efficient, and, in particular, have better equipment for rescuing a pilot or crew member who falls overboard. Pilot boat crews are trained 'on the job' with assessments of their competence carried out by the Harbor Master as they gain seniority. When they are considered sufficiently competent, they can be promoted to the rank of skipper on the pilot boats.

Tugs provide towing services at the port. The tugs operated by the Yemen Gulf of Aden Ports Corporation (YGAPC) consist of two Azimuth Stern Drive (ASD) tugs, delivered in 2002, with bollard pulls of 56 tons ahead and 52 tons astern. These tugs are fitted with firefighting equipment (FiFi 1)[13]. Two smaller tugs with conventional propulsion, with bollard pulls of 41 tons when new, were delivered in 1999 (see Marine Craft below). All of these tugs now need refurbishing to various degrees. One of the conventional tugs has been unreliable almost from the time that it was delivered. The ASD tug Wadi Hatib suffered severe damage in 2009 when the port propeller pod struck the sea bed while operating in the harbor. After many years, the pod was repaired in Djibouti, but the port engine needs to be rebuilt, with a new crank shaft and cylinder block. The starboard engine requires a major overhaul. Both engines need a new engine automation system to monitor and control engine speed, temperatures, etc.

Tug crews are trained 'on the job,' with crew members who have gained sufficient experience provided with training by the Harbor Master and his staff as they move to higher seniority on the tugs toward the status of skipper. When they are considered to be sufficiently competent, they may be promoted to skipper. At present, training includes relatively informal instruction on towing operations, handling towing ropes and wires, etc. Additional training materials are due to be provided through the ERLP project. Additional training is also provided when new tugs are delivered to Aden, where a training program for the tug crew is part of the contract to be fulfilled by the building yard. The last training program of this type was delivered almost 20 years ago.

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[12] See, for example, https://navicomdynamics.com/media/64810/portable-technology-for-harbor-pilots-maritime-executive-jan-2015-ed.pdf

[13] FiFi 1 notation is given to a fire fighting boat equipped with at least two fire monitors, remotely controlled from the wheelhouse, and able to project water to a minimum distance of 120m from the vessel and to a height of minimum 45m. In 2007 the tug Wadi Hateeb successfully fought a major fire on the container ship Hyundai Fortune, which destroyed the containers and ship structure aft of the ship's accommodation block.

In addition to the tugs operated by YGAPC, two tugs are based at the oil harbor, owned and operated by the Aden Refinery Company (ARC). The tug Noor Aden was delivered in 2013 and the Socotra in 2016. Details of these tugs, and other craft, are given in Annex VI.

Under Standing Order No. 14/2018, the number of tugs required to assist ships calling at Aden inner harbor is stated as follows:

- One tug for ships up to 10000 GRT
- Two tugs for ships between 10000 and 25000 GRT
- Three tugs for ships between 25000 and 45000 GRT
- Four tugs for ships over 45000 GRT

CHARGES FOR TOWING SERVICES ARE LEVIED IN ACCORDANCE WITH THE MARINE TARIFF (SEE ANNEX VIII).

Mooring of ships is carried out using mooring boats, as listed in the section on Marine Craft. The Port has two mooring boats currently operational, with an additional four mooring boats serving the oil harbor. Pilots report that only one mooring boat is available at the oil harbor for most operations due to mechanical/technical problems with the remaining boats, which slows the operations as tankers calling Aden generally have wire moorings that take more time for the boats to handle. At buoy berths, the ships' ropes are secured to the buoys by taking them through a ring at the center of the deck of the buoy and looping them over horns around the periphery of the buoy. Normally three buoys are used, with the ship's anchor closest to the center of the channel used to secure the bow against wind and current forces. Mooring boat crews have developed the required skills to carry out these operations quickly. At dolphin berths, a combination of buoy and dolphin moorings are used to secure the ships. At alongside berths, ropes and wire springs are secured to bollards on the quay, and, in the case of the AGT, stern ropes are secured to the dolphin at the western end of the jetty.

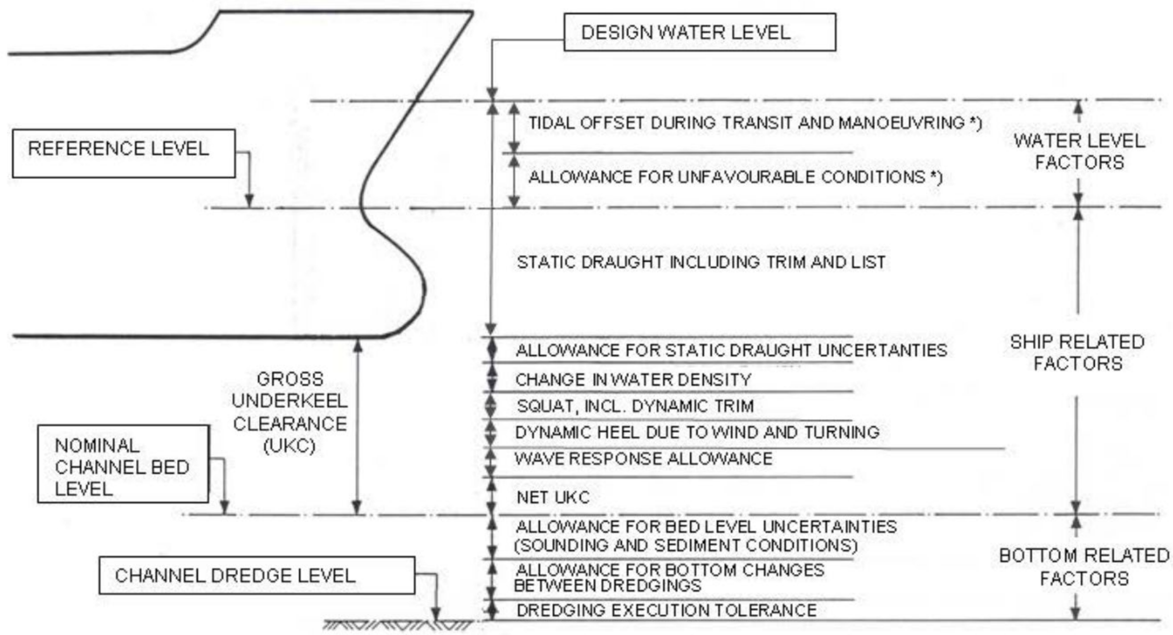
INSURANCE OF MARINE OPERATIONS

Any ship calling at the Port is required, under the port tariff, to hold the port 'harmless' in the case of an accident or incident involving a pilot, tug, mooring boat, etc. In other words, the Port is not liable for damage to the ship or any berth or other structure, and insurance cover for such damage must be provided by the P&I Club of the ship. Business interruption insurance cover is not provided by the Port for any private terminal operating within the port. Any losses due to delays affecting the private terminal must be absorbed by that terminal.

ARRIVAL, BERTHS AND WATER DEPTHS

A number of factors affect the draught and under keel clearance of a ship maneuvering in a port access channel or turning area, as indicated in the diagram below. As noted above, the tidal regime at Aden offers favorable conditions for ships to berth and discharge cargo rapidly before the next low tide reduces the depth available to them. Ships calling Aden are generally required to maintain an under keel clearance of 30 cm if their maximum draught is up to 11.0m and 60 cm if their maximum draught exceeds 11.0m. At the Ma'alla Terminal, the maximum permitted draught is 10.4m, but ships have been permitted, subject to the approval of the Port Officer, to arrive at Aden with deeper draughts if the tide is favorable and can thus carry more cargo. This has resulted in ships arriving with cargoes such as clinker and coal of up to 43,000 MT for unloading at the Ma'alla terminal, using the tide. Currently, all ships due to berth at Ma'alla with draughts >10.4m can only berth after the Port Officer has been notified and gives his approval.

Figure 7: PIANC - Approach Channels – A Guide for Design



In January 2021, the Port announced that fines would be imposed on ships arriving at draughts greater than 10.4m at the Ma'alla Terminal. The rate is $100 per centimeter for draughts of between 10.5m and 10.7m. Between 10.7m and 10.85m, the rate is $700 per centimeter.

Limiting conditions at all the berths in the Port are defined by three factors, the ships' draughts, lengths overall (LOA), and summer deadweights (DWT). These are given in Port Regulations and on the Port website.

There are 11 'stream' berths in the inner harbor, consisting of eight buoy berths (Nos. 1A to 8 Out) and three dolphin berths (6 In, 6 Out, and 7). There is also an anchoring area for yachts. The maximum permitted draughts for ships using the buoy berths range from 9.0 to 10.0m. The maximum draught at the dolphin berths is 11.0m. The maximum permitted draught at the yacht anchorage area is 4.5m. The stream and dolphin berths can handle ships of between 3,000 tons and 104,000 DWT with LOAs of from 85m to 275m.

The Aden Container Terminal has a depth alongside a 'pocket' of 16.0m, on the north side of the 700m diameter turning area. It has two berths, each able to berth container ships with draughts of 13.75m, summer deadweight of 149,000 tons, and LOA of 350m.

The Aden Gulf Terminal has two berths, one on the north side of the jetty and one on the south side. The north side berth can handle ships with a draught of 12.6m, summer deadweight of 103,000 tons, and LOA of 280m. The berth on the south side can handle ships with a draught of 10.8m, summer deadweight of 49,000 tons, and LOA of 200m. Space restrictions on the south side berth mean that berthing and unberthing ships at this berth have to be carried out with the advice of a very experienced pilot. During the SW monsoon, strong winds and sudden gusts from the south can affect the manoeuvering of ships at this berth.

At the Ma'alla Terminal, there is one RoRo berth at the western end, where ships are having a maximum draught of 7.0m, 11,000 DWT, and LOA 130m can berth. MW1 to MW4 ships of maximum draught 10.4m, 36,000 DWT, and LOA 180m can berth at the four main berths. At the two Home Trade Quay (HTQ) berths, ships of maximum draught 6.1m, 20,000 DWT, and up to LOA 150m can berth.

The Fishing Harbor is able to accommodate trawlers and other fishing vessels of between 6.0m and 7.8m draught, 700 to 3,000 DWT, and LOAs of from 60 to 90m.

MARITIME AFFAIRS AUTHORITY

The Maritime Affairs Authority (MAA) was established in 2002. It plays an important role in the overall regulation of maritime activities in Aden. The Head Office of the MAA is located at a purpose-built set of offices at Hedjuff in Aden, on a waterfront site. The MAA is the agency responsible for protecting the marine environment and, in particular, the detection of marine pollution and response to that pollution. The MAA owns and operated a Marine Pollution Combatting boat, the Zuqar, equipped with booms and means of spraying dispersants. She was delivered in 2001 but is no longer operational[14]. The MAA is also responsible for Port State Control of ships in Yemeni waters and liaises with and attends meetings of the Indian Ocean Memorandum of Understanding on Port State Control (IOMoU).

The MAA is responsible for aids to navigation outside port limits, for investigating and dealing with wrecks, collisions, and other maritime incidents in Yemeni waters, and for implementing international and bilateral agreements, such as IMO Conventions that Yemen is a party to. The Government party to Yemen's agreement on exchanging navigational information for charts and the United Kingdom Hydrographic Office (UKHO). The MAA is responsible for registering ships under the Yemeni flag and issuing Certificates of Competency to Yemeni mariners who hold recognized qualifications as Masters, Mates, Engineers, etc.

The MAA has a pivotal role to play in port security, as it is responsible for implementing the requirements of the International Ship and Ports Security Code (the ISPS Code) under the Safety of Life at Sea (SOLAS) Convention. The MAA appoints Port and Terminal Security Officers, develops, with the Port and terminals, Port and Terminal Security Plans. It updates and improves these over time and approves plans submitted to it by third parties such as private terminal operators. The MAA liaises with IMO in matters of port security and sets the security level for Aden Port. It is responsible for checking the security levels of visiting ships and ensuring that required security measures are in place when a ship is in port.

YEMEN COASTGUARD

The Yemen Coastguard (YCG) was established in 2004 to improve maritime and port security following the attacks on the USS Cole in Aden Harbor and the tanker Limburg at the Ash Shihr oil terminal east of Mukalla. The YCG was provided with financial support to pay for recruits and significant support for training personnel from the UK, USA, and others. A wide range of patrol boats and other craft were provided, together with moorings and boat repair facilities in the Tawahi area of Aden Port. Up to

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14 Under the Prime Minister's Decree 5/2021 dated 02 February 2021, a National Oil Spill Emergency Committee has been established to prepare for any potential oil spill from the FSO SAFER. The Committee is liaising with IMO and other interested parties in seeking support to secure new pollution combatting equipment for Yemen.

around 2011, the YCG was active in patrolling the Aden harbor area, providing escorts for important ships visiting Aden, and checking on dhows and fishing boats arriving at Aden[15].

Since that time, many of the patrol boats have deteriorated and are no longer in service. They need major refurbishment work to be carried out on them, which will not be done without outside support. However, the need for the YCG to provide maritime security services remains critical, particularly in terms of conducting patrols in the Aden anchorage area, waters close to the entrance of the port, and in the oil harbor and inner harbor.

YCG personnel also provide security at the Ma'alla Terminal, checking vehicles and personnel arriving at the main entry gate to the terminal and providing patrols of the terminal area. YCG is also active in providing security at the gates of the ACT and the oil terminal in the oil harbor. Port security plans are implemented, in part, by YCG personnel.

MARINE CRAFT

The table of marine craft is given in Annex VI. This shows that, in general, there has been a lack of investment in marine craft to provide port services over the last 20 years. An exception has been the supply of the new ASD FiFi 1 Tug to the Aden Refinery Company in 1999. However, the four tugs providing towing services for YGAPC are all now 19 or more years old, with only one of these reported to be in 'good condition.' At least one new tug is required.

The specification of any new tug to be purchased by the Port will be determined by YGAPC. A new tug must have the capacity to handle container ships of up to 8,000 TEUs, bulk carriers carrying up to 65,000 MT of bulk wheat at the AGT, and tankers of up to 110,000 DWT at the oil harbor. In addition, a new tug for Aden should have the towing capacity and FiFi 1 equipment installed to respond to requests from ships on fire, in distress, or disabled in the Gulf of Aden and the southern Red Sea for FiFi and towing services. This implies that any new tug should have a bollard pull of at least 65 tons.

Maintenance of the marine craft operated by the Marine Operations Department is overseen by the Assistant Harbor Master for harbor craft maintenance and carried out by the Port's Technical Department.

While there are problems in obtaining spare parts for marine craft, the Technical Department has been able to keep most of the craft, some of which are now very old, in operation. Of the three available pilot boats, only one of these (Socotra) is in service and requires regular attention to keep it operational. The other two are under repair by the Technical Department. Two of the three mooring boats are currently operational, with the third one 'under repair.'

The Technical Department also operates marine craft. The floating crane, now 65 years old, continues to be used to carry out regular maintenance of the mooring buoys in the inner harbor. The hydrographic survey boat Barraqa, delivered in 2012, has never provided the survey services that the Port anticipated because the surveyors were not given adequate training in using the Multi-Beam Echo Sounder (MBES) on board, and it appears not to be working properly. The Port is addressing the issue. A self-propelled floating crane, Donafa, delivered in 2017, is used to service navigation buoys in the channel and inner harbor and can carry out other work in the Port.

15 YCG also provides security services in Mukalla and Hodeidah, which have their own MAA Offices

CONCLUSION

The Port has been operating for many years under difficult circumstances, particularly since the start of the most recent conflict in 2015 and the ensuing restrictions on importing many items and restrictions on travel to certain countries for Yemeni nationals. The unwillingness of non-Yemeni specialists whose skills are needed to carry out some of the repairs, or to provide highly skilled training in the use of complex equipment, has further restricted the ability of the Port to carry out the work and provide the staff training that it ideally would want to deliver. Import restrictions have included the non-supply of spare parts for marine craft, and as a consequence, a number of these, including two of the pilot boats, remain 'under repair,'

However, the Marine Operations Department, supported by the Technical Department, continues to provide marine services that can maintain the flow of ships into and out of the Port, with the result that Aden is now handling over 50% of the total cargo flow into and out of Yemen through all sea ports and land border crossings. This is a commendable result.

While this is true, the situation at the Port could change radically if there is a serious incident that, for example, results in the port access channel being blocked or one or more berths taken out of use. All the alongside berths in the inner harbor are in almost constant use. There is also a serious risk that one or more of the marine craft will become inoperable, leaving the port unable to serve the ships adequately. The marine services at Aden are also not currently operating at their full potential. This assessment has reinforced the need for contingency plans to be prepared and be ready to use in the case of any serious incident. It has highlighted the need for new investment in marine craft, particularly for at least one new tug and probably a new pilot boat. The Port has, in the past, provided towing assistance to ships in the region that have suffered from catastrophic fires or other disabling incidents. At present, Aden would be unable to respond to requests for such assistance.

There is also a longer-term risk to the port of a lack of investment in developing a 'succession strategy,' Skilled pilots and engineers to maintain marine craft will continue to be required in the coming decades. Providing training for future pilots and engineers at entry level by investing in young Yemenis with the necessary educational background is essential to the future wellbeing of the Port.

Many of the recommendations in this assessment point to the positive changes that could be made by implementing a number of relatively simple 'soft' changes to the delivery of marine services. These changes can be made if the senior professional staff in the Department can be brought together to think clearly and constructively about improvements that they can make, working through the recommendations given in this assessment and using the many resources now available online to modernize current practices.

Within port limits, there is an urgent need for a new hydrographic survey of the complete harbor. The last major survey was carried out in 1998-99 when the ACT was built, and the access channel and turning area off the ACT dredged. Based on the results of the required survey, it is likely that a substantial amount of maintenance dredging will be required in the channel and at the berths.

It has been noted that the time taken for ships to enter and leave the port is consistent with good operational practices. It is not likely that any significant additional numbers of ships could be handled annually by reducing entry and departure times. The number of ships being handled at present leaves plenty of space for additional traffic and does not limit port capacity.

RECOMMENDATIONS

The recommendations given in this section are designed to assist the team responsible for managing marine services as they improve current practices and deal with the problems they face in delivering these services. Annex VII gives the Marine Audit Checklist, which contains actions that can be taken to help the Port move towards implementing the level of practice commonly found in international ports.

- **Port Standing Orders:** These contain very useful guidance for pilots in carrying out their duties. It is recommended that the team review these to determine if any additional Orders should be included to increase the value of the document.
- **VTMIS:** An important initiative taken by the Port with the support of UNDP has been the development of the detailed specification of the VTMIS for Aden. When installed, this equipment will allow the Port to monitor and control shipping movements to a much greater degree than it can at present. Training in the use of this equipment has already started. It is recommended that the team extract the maximum benefit from the training due to being delivered by the VTMIS supplier, plus continue to provide training for control tower staff in VTMIS operations. Further, it is recommended that the second phase of the VTMIS should be funded and installed after the Phase I equipment has demonstrated its capacity. As the VTMIS will be provided with weather monitoring equipment, staff must be familiar with the use and maintenance of this equipment so that adequate weather records can be maintained and used to assist pilots on ships.
- **Pilot Training:** The Pilot Training program has served the port well for many years. The initiative taken by the AASTMT to install a model of the Port of Aden on their new TRANSAS simulator is welcome. Pilots must continue to have access to Continuing Professional Development courses at AASTMT to maintain the validity of their Certificates of Competency and be given opportunities to attend training courses on the AASTMT Simulator.
- **Harbor Master Training:** The Nautical Institute offers a distant learning course based on their publication 'The Work of the Harbor Master,' This provides a ready-made training program for aspiring harbor masters and should be considered by the Port to be a pre-requisite for pilots who wish to become future harbor masters. The Port should consider paying for membership of the Nautical Institute, on a case by case basis, for pilots and harbor masters who wish to keep up to date with developments in the marine world.
- **Tug and Pilot Boat Crew Training:** The training of these staff relies heavily on the Control Tower team to provide the training and testing required. Tug skippers should be given opportunities to attend training on the AASTMT simulator, together with the pilots. Materials that emphasize the importance of maintaining the boats properly, and care in handling them at all times, should be prepared and maintenance materials delivered to crews by the Assistant Harbor Master for Harbor Craft Maintenance to reduce time out of service. Boats must be kept clean and tidy, with any faults in machinery or damage reported immediately and action taken to rectify faults before they cause more serious issues. Greater use must be made of Standard Operating Procedures, boat Log Books, and Check Lists. Boat fenders must be repaired as soon as they become damaged (see also Annex II on specialized training for tug masters).
- **Succession Planning:** Investment must be made to train future Masters and Marine Engineers to secure a future pool of skilled staff. Current senior Marine Operations Department staff need to prepare their subordinates through on-job training, coaching, planned training events, and certification to prepare them for succession.

- **New Port Craft:** The port should invest in the new marine craft as soon as funds are available to do this. At a minimum, a new tug, capable of handling all the sizes of ships currently using the port, and that are expected to use the port over the next ten years, as well as having the capacity to assist vessels that require this in the southern Red Sea and the Gulf of Aden. A new pilot boat built to the latest standards is also required to secure the efficient provision of pilot services. One or more new mooring boats should also be considered.
- **Marine Craft Maintenance:** Measures to secure spare parts need to be revisited by the Technical department to optimize their current Operations and Maintenance Plan (O&M PLAN). A recommendation on this process is highlighted in Annex IX.
- **Hydrographic Survey:** There is an urgent need for a new hydrographic survey of the complete harbor and the relatively new hydrographic survey boat to be brought into full use by the port to survey the port berths and approach channels regularly.
- **Impact of COVID 19:** COVID 19 has had a massive impact on ports around the world. At Aden, precautions to protect pilots, other marine staff, and port staff generally are in place. However, the port should continue to monitor developments in 'best practice' at other regional and international ports and monitor advice issued by international bodies and experts to ensure that any 'lessons learned' elsewhere are implemented at Aden so that its marine and port staff generally, are protected to the highest degree possible.
- **VTMIS and a Weather Station:** The weather information provided in the UKHO Pilot Book covering the Red Sea and the Gulf of Aden, including the Port of Aden, is based on records from 1960 to 2000. The installation of new weather recording instruments in conjunction with the VTMIS provides the opportunity for the port to collect records automatically over the first year of VTMIS operation. These can be provided to UKHO as part of Yemen's information exchange with the organization to provide materials for the Pilot Book to be updated.
- **Marine Craft Records:** As most of the certificates kept at the Technical department were damaged or lost during the 2015 war, it is evident that a backup is needed for 'disaster recovery' purposes. It is suggested that this can be achieved by preparing a "table of certificates," ToC, that should be archived electronically and in hard copy form in a separate location from the Technical Department. The ToC would include, as a minimum;
    - Survey Status Reports for Hull, Machinery and load line
    - Certificates of seaworthiness
    - Tonnage certificates
    - Dry docking and inspection reports
    - Marine Craft information and specifications sheets
- **Port Navigation Aids:** A new LED/Solar light has been provided for the Elephants' Back Light House marking the port approaches. The light on Salil Island on the north side of the anchorage area also needs to be replaced. In general, navigation aids for the port must be maintained in good condition to demonstrate to the lines using Aden and their insurers that the Port is fulfilling its responsibilities in navigation safety.
- **Tide Gauge:** The port has tide records going back to 1883, which are of great interest to the international community when rising sea levels are considered an issue of concern around the world. The Port should investigate why the new tide gauge, with satellite transmitting capabilities, is no longer working and determine what needs to be done to return it to service.
- **Yemen Coastguard:** The Port should continue to support the YCG, responsible for patrolling port waters and approaches. Demonstrating that the YCG is able to operate its craft and provide security protection for ships calling Aden will give important support to efforts to reduce the current high War Risk Insurance rates for ships calling at Yemeni ports.
- **Shallow Triangle in Ma'alla Approaches:** When the new turning area of the ACT was dredged, this altered the line of the 'best' approach to the Ma'alla Terminal. Removal of the

shallow triangle on the north side of the approach to Ma'alla, which is a navigation hazard, should be given a high priority by the Port during any future dredging program.

- **Quay Wall Fenders:** The quay walls, in general, are in good condition. The Technical Department should be tasked with conducting a survey of the fenders on all the Port quays and berths to determine where these need to be replaced or refurbished.
- **Port Contingency Plan:** A port contingency plan is a requirement under the IMO OPRC Convention 90 and the OPRC/HNS 2000 Convention, both of which Yemen is a party to. Aden should prepare a comprehensive Port Contingency Plan covering marine pollution incidents and the many other incidents involving cargoes, port equipment, port buildings, marine, and nautical accidents. Preparation of the plan can be led by the Marine Operations Department, with specialist inputs from other Port Departments, the Maritime Affairs Authority, Yemen Coastguard, and other Government agencies. The legal basis for the plan will need to be established and, if necessary, regulations amended. Once the plan has been prepared, outline details should be put on the Port Web Site, and a training program initiated to support awareness and implementation of the plan. A useful reference explaining how such a plan can be structured, and the areas it should cover, is given in the European Union publication "Monalisa 2.0 – Guidelines for Contingency Planning in Ports.16
- **Accreditations ISM & ISPO:** The ISM is currently implemented at the Marine Operations Department but without accreditation. This, however, is not mandatory for marine craft operating within national waters. However, ISO 9001 or ISPO are appropriate standards and are therefore recommended for use by the port. Table 4 overview demonstrates relevant accreditations for the port with recommended regimes in green.

Table 4: Overview of audit regimes relevant for the Marine Department Aden Port

Audit	Audit Level	Frequency	Duration	Target
ISM internal audit of shore organization	**System**	**At least every 12 months**	**Stated in the organization, SMS**	**On-shore management**
ISM external audit of shore organization	System	Annually	16 hours	On-shore management
ISM internal audit of marine equipment/vessels	System	At least every 12 months	Stated in the organization, SMS	Vessel
ISM external audit of marine equipment/vessels	System	Twice every five years	8 hours	Vessel
ISO 9001:2008 - QMS	**System**			**Pilotage & Ship Movement, Tugs & mooring**
OSHAS Occupational Health & Safety Assessment: ISO 14001:2004/OHSAS 18001:1999				
ISO/IEC 27001:2005 - Information Safety Management				Ship and Cargo Movement

16 https://s3-eu-west-1.amazonaws.com/stm-stmvalidation/uploads/20160420145632/ML2-D4.1.1-Guidelines-for-Contigency-Planning-in-Ports.pdf

ANNEX I – DIAGRAMS SHOWING TIDAL CURRENTS IN ADEN HARBOR

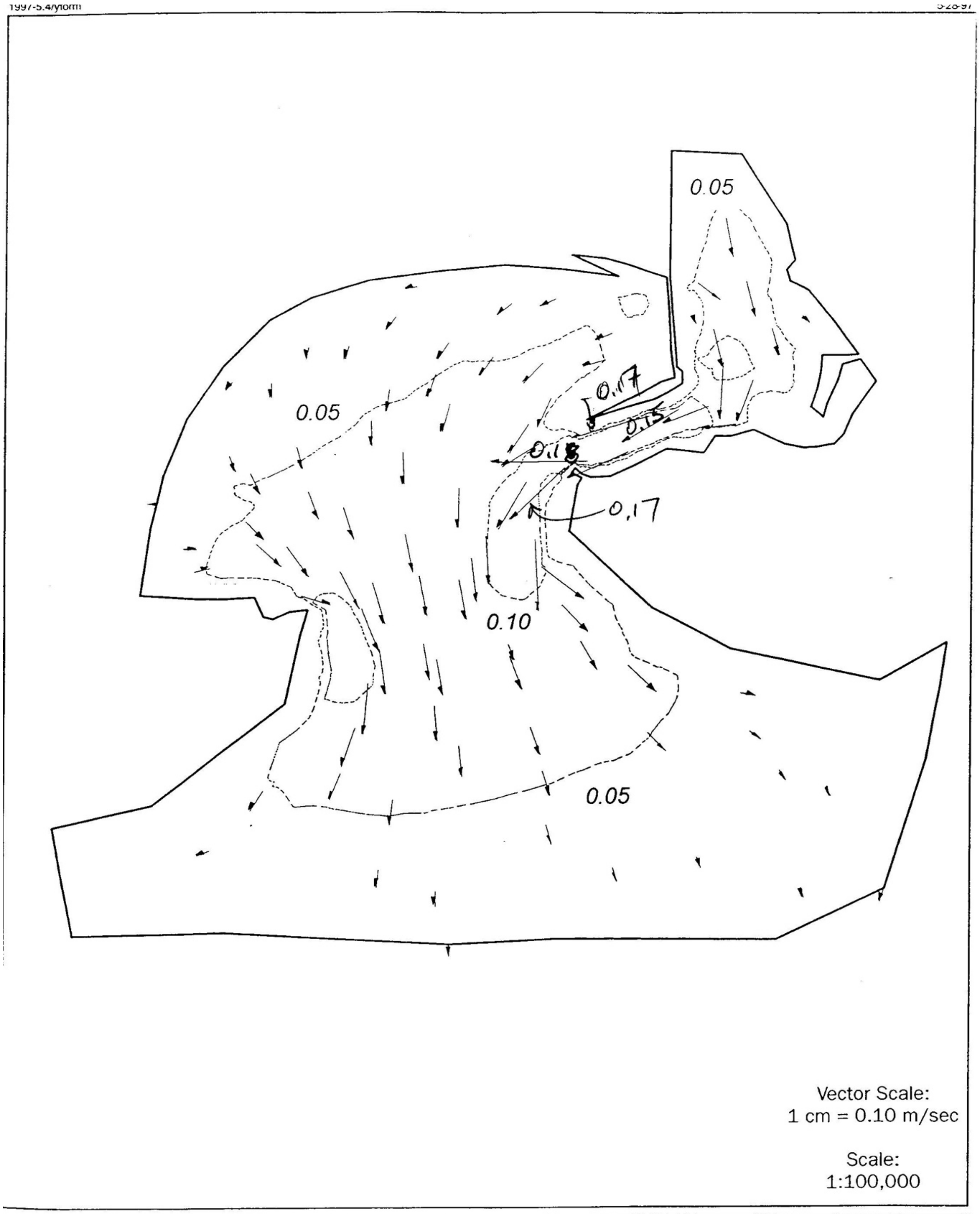


Figure H-4
Pre-condition Modeled Velocity Vector Map
Spring Ebb Tide, March 7, 1997

Golder Associates

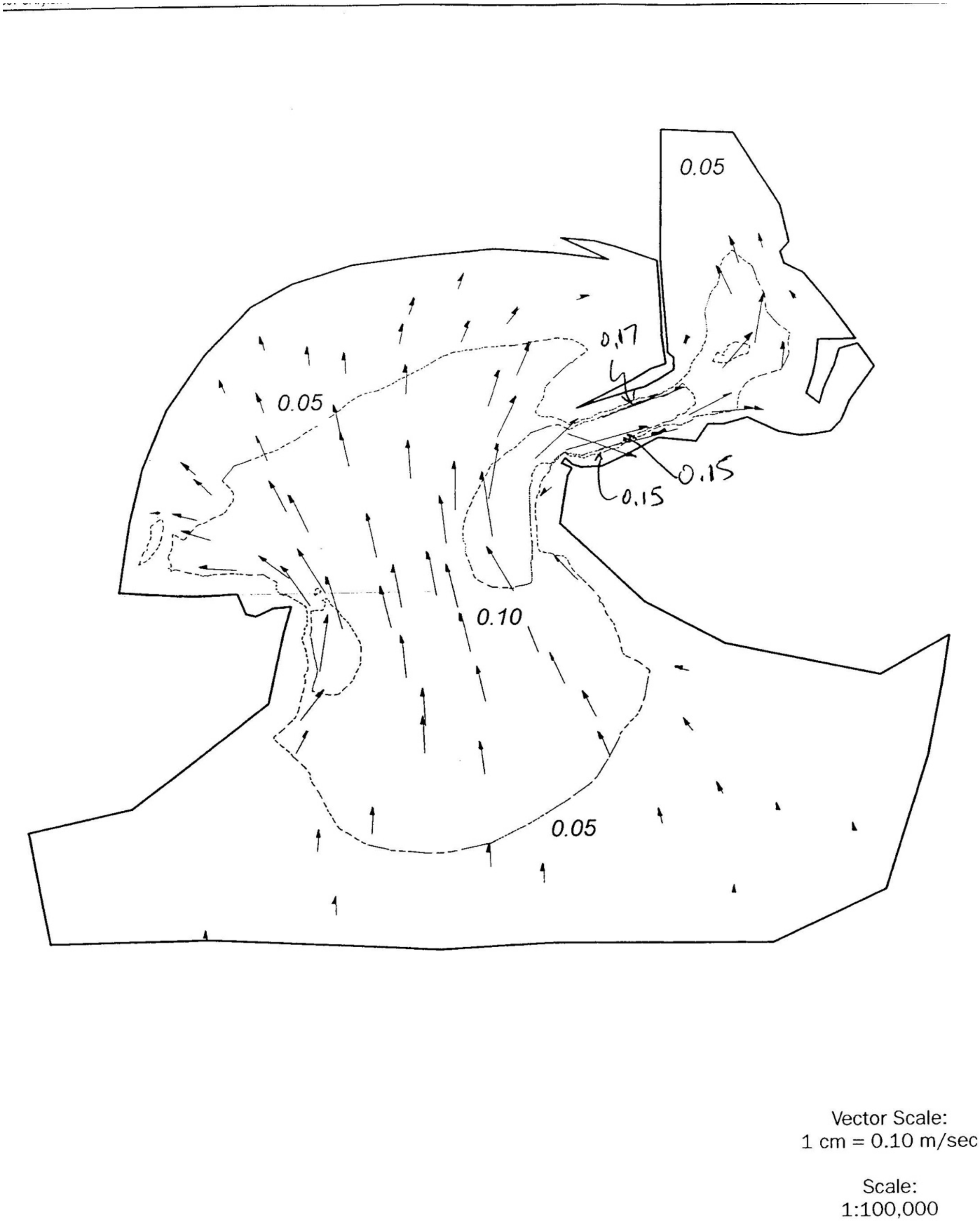


Figure H-3
Pre-condition Modeled Velocity Vector Map
Spring Flood Tide, March 7, 1997

Golder Associates

ANNEX II – TRAINING REQUIREMENTS FOR PORT OF ADEN PILOTS

All applicants for the job of Aden pilot must have a valid sea master foreign going COC.

After accepting the applicant's requests to work as a pilot, they are instructed to proceed to the port officer office to begin their training.

First, they are given a short brief on the port layout in addition to notes on the number of Berths, berths depths, and lengths, ships max. Draft and LOA for each berth.

Then they must accompany a qualified pilot and observe how they handle the inbound-outbound vessels. They must complete 200 maneuvers covering all berths, day and night, inward and outward.

After completing the 200 movements, and if they feel confident, they apply for the pilot exams. If not, they request the port officer for extra training.

The exam is both oral (held by the port officer and harbor master and one of the harbor master assistants) and practical (normally ten movements covering all berths inward and outward, where the examiner is the harbor master and one of the harbor master assistants.

On passing the exam, the applicants are given a port of Aden pilot license, and they are recognized as junior pilots handling vessels up to 15000 GT and tankers/bulk carriers up to 35000 S.DWT.

After a period of time decided by the port officer, they are being promoted to pilots handling vessels up to 35000 GT, and tankers/bulk carriers up to 55000 S.DWT

The final stage is the promotion to the senior pilot in charge of handling all ships calling the port of Aden. This is given at the discretion of the port officer.

ANNEX III – ADEN HARBOR – LIST OF STANDING ORDERS

No.	SUBJECT	BRIEFING
S/O - 01/2018	IMPORTANT HINTS FOR PILOTS	1. Pilot attendance and shift takeover 2. Pilot ready within 45 minutes of being called upon 3. All certificates handed after watch 4. Last call is 35 minutes before the end of the watch 5. Pilots must disembark immediately on work completion, and pilot boats must not be kept waiting 6. The pilot cannot use boats for personal reasons without a port officer or HM approval 7. Strict observation of port rules, pilot bylaws, and standing orders. Ensure the channel is clear before the maneuver.
S/O - 02/2018	MA'ALLA WHARF BERTHS (MW)	a. RoRo Berth: with ramp depth 7.60 m & 150 m length, allowed ships up to 130 m LOA and permitted draft 7.00 m. b. Berth 1 & 2: each is 187.5 m long, 11.00 m depth, and 280 m turning basin. Both allocated for container ships and container OPS with ships allowed up to S. DWT 36,000 MT, LOA 180 m, and max draft 10.40 m. c. Berth 3 & 4: Same criteria as berth 2 & 3 but specifically for general cargo. d. Berth 5 & 6: combined length is 244 m, 6.70 m depth, and 250 m turning basin northward of quay. Both allocated for dry cargo OPS with ships allowed max LOA 150 m, and max draft 6.10 m. (special permission from Port Officer for ships exceeding criteria).
S/O - 03/2018	ADEN CONTAINER TERMINAL (ACT)	The total length is 760 m, 16 m depth, and 15 m channel approach depth. Allocated for containers with two ships allowed simultaneously of max LOA 350 m, and max draft 13.75 m. (special permission from Port Officer for ships exceeding criteria).
S/O - 04/2018	TANKERS RESTRICTIONS AT THE OIL HARBOR	The approach channel to the harbor 14.75 m deep, 2 NM long, and 200 m wide. a. Berth 1: 13.50 m draft, limited to S.DWT 85,000 & LOA 260 m to accommodate large tankers with quadrilateral segment (i. channel buoy five red to round dolphin four-berth, ii. a point 90 m x 337 degrees from breakwater light to 1st square dolphin of berth 1, iii, a point from 1st dolphin to the sixth consecutive square dolphin in the direction of berth 2, iv, from 6th consecutive square dolphin in (iii) to the round dolphin of berth 4). b. Berth 2 & 3: depth 11.60 m with tankers up to S.DWT 65,000 & LOA 235 m. c. Berth 4: designed for largest tankers received with S.DWT 110,000 and minimum/maximum LOA 170/280 m. depth of area 15.80m with rectangular pocket 325 m long and 85 m wide. d. Tidal restrictions: (deepest drafts are given daily by Harbor Control). 11 m draft ships can berth on all berths. Tankers over 11 m draft can go to berths 2 & 3 with a minimum under-keel clearance of 60 centimeters. Ships over 12.25 m draft can use berth 1 and 4 to observe minimum under-keel clearance of 1.25 m. tankers over 13.50 m draft shall be maneuvered on the flood tide. e. Berthing/un-berthing restrictions in terms of time: up to S.DWT 65,000 can berth/un-berth can berth anytime day and night. Between 65,000 & 85,000 S.DWT can berth at quay one during daylight hours only but can un-berth from it anytime. Tankers up to 85,000 S.DWT can berth/un-berth from Berth 4 at any time. Large tankers with S.DWT 85,000 to 110,000 can only berth/un-berth during daylight hours.
S/O - 05/2018	LPG/OIL/DRY CARGO JETTY AT THE OIL HARBOR	At the western extremity of the oil harbor, Berths 5,6. 330 m in length and 11.0 m deep. 1. Allowed S.DWT 15,000 MT, max LOA 150.0 m, max draft 10.40 m, berth/un-berthing anytime, no tidal restrictions. 2. RoRo: S.DWT 3500 MT, max LOA 100m, mx draft 10.40 m.
S/O - 06/2018	No. 5 AND 6 BERTHS AT THE OIL HARBOR	Two tankers only or one tanker and 1 LPG can berth at the jetty with a minimum clearance of 50 m. prohibited to berth 3rd vessel without permission of Port Officer & Marine superintendent or Aden refinery.
S/O - 07/2018	ADEN GULF TERMINAL (AGT)	The length of the pier is 303 m, including dolphin with 14 m draft on the north side and 12 m on the south side. Bulk carriers up to S. DWT 70,000 MT 1. North side: AGT 1: bulk carriers up to 280 m LOA and 12.60 m draft. 2. Southern side: AGT 2: awkward berth and requires extreme caution. Max LOA 200 m and draft 10.80 m weather condition permitted in order not to damage the jetty.

No.	SUBJECT	BRIEFING
		3. Ship criteria limitations: The criteria of ships mentioned herein shall not be exceeded, particularly for the southern side of the pier. However, the Port Officer may allow longer and deeper ships to berth thereat on special request for the northern side.
S/O - 08/2018	FILLING UP INFORMATION IN THE PILOT CERTIFICATE	1. Information on ship particulars: a. The correct drafts must be verified both inward and outward. b. NRT and GRT of ships obtained from certificates of registry or tonnage. c. GRT of a warship is to be found in its Suez Canal certificate. 2. Detention of Pilots and port authority crafts: a. Ship requests services of a Pilot and is not ready for maneuvering, detention will count 30 minutes after the Pilot has boarded. b. No detention charged to a ship caused by the delay in the arrival of tugs and mooring boats. 3. Ships with dual tonnage: a. NRT and GRT of ships shall be entered in all inward pilotage certificates. b. Where a ship is marked with alternative tonnage, the greater tonnage shall be entered in the pilotage certificates. 4. Forms used in the pilotage service: Pilotage certificates and other forms required in pilotage service are always available in pilot and mooring boats. 5. Break-water passing times and Oil harbor stamp: Pilots shall endeavor to enter break-water passing times in the pilot certificate when piloting ships to/from the Oil harbor. It is difficult to note such times with accuracy by the Harbor Control situated far off from the Oil Harbor. Furthermore, the Oil Harbor stamp shall be endorsed on all certificates pertaining to pilotage at the Oil Harbor. 6. Different aspects of a pilotage certificate: a. A certificate shall be ticked/underlined as "INWARD "when an arriving ship enters the port limit and passes the Inner or Oil Harbor breakwater. b. A certificate shall be ticked/underlined as "OUTWARD "when a ship is granted a port clearance and sails out from the port. c. A certificate shall be ticked/underlined as "OUTER HARBOR "when arriving and anchoring in the Outer Harbor with a pilot's assistance. d. A certificate shall be ticked/underlined as "ATTENDANCE "when a Pilot boards a ship and leaves her without offering a pilotage service for a reason related to the ship. e. A certificate shall be ticked/underlined as "REMOORING "when casting off from a berth and then securing it again for some reason related to the ship. f. A certificate shall be ticked/underlined as "TRANSPORT "when a ship is shifted from one berth to another. 7. Extra charge for YGAPC tugs used at the Oil Harbor: The normal tug fee + fee for the time taken from tug mooring to the Oil Harbor and back to the mooring are legible from ships requiring tug assistance at the Oil Harbor. Such time is, therefore, required to be carefully noted. Where YGAPC tug offers assistance to more than one ship consecutively, each ship shall be charged separately. 8. YGAPC tug used in ATTENDANCE/SPECIAL TOWAGE: a. The certificate shall be ticked "IN ATTENDANCE "when assistance is given to ships moving under their own propulsion power and steering for the use of port tugs. b. For the use of port tugs, the certificate shall be ticked "SPECIAL TOWAGE "when assistance is given to ships unable to move under their own propulsion power or with defective steering.
S/O - 09/2018	PILOTAGE CERTIFICATE MUST BE ENDORSED WITH SHIP STAMPS	Pilots to sign the relevant certificate and stamped by the Master or his representative. If the ship stamp is not available, the pilot will inform Harbor Control, who will establish contact with agents/owners of the vessel. If not possible due to holidays or night, then Harbormaster or Port Officer must be contacted to handle.

No.	SUBJECT	BRIEFING
S/O - 10/2018	VARIATION IN TUG CHARGES	Tug charges are not the same in all maneuvering conditions; under the port rules, tug charges for special towage, tug detention, and re-mooring are different from charges for a tug (in attendance). It is, therefore, very important to ensure that a Pilot ticks the actual service rendered to a ship when filling up the Pilotage Certificate.
S/O - 11/2018	SHIPS NOT ALLOWED TO SAIL WITHOUT A PORT CLEARANCE	1. Port clearance issued to a ship is valid for 24 hours, after the expiry of which it shall be necessary to issue a new port clearance. 2. Before piloting a ship on an outward voyage, a pilot shall ensure that she has a valid port clearance on board. The number, date, and time of such clearance shall be noted on the outward pilotage certificate. 3. The pilot shall ensure that a port clearance is duly endorsed by the immigration authority and where there is no such endorsement, Pilotage must be denied, and the Aden Harbor Control informed.
S/O - 12/2018	NEW ENTRY NUMBERS FOR SHIPS	To apply Port dues and differentiate between First Entry and Second entry: 1. A ship arriving at the port is entered in the port dues registry and allotted an entry number known as First Entry, which is retained until the departure of such ship. 2. A ship that intends to leave the port temporarily and retain her First Entry number shall have to return to within port limits and identify herself before the expiry of twelve hours from the time she left the port. 3. Arriving at the port after the expiry of twelve hours shall entail allotting a new (Second) entry number to the ship. 4. Where a ship returns to port limits before the expiry of twelve hours and waits without identifying herself, she shall be allotted a new Entry number after the expiry of such time. The Harbor Control shall not be held responsible for the same.
S/O - 13/2018	LIAISON BETWEEN PILOTS AND TUG MASTERS	Purpose: economy in fuel consumption, proper tug assistance for maneuvering. Pilots must perform the following during ship inward/shifting. 1. Inform the Tug-Master of the berth to which the ship will be secured. 2. Give hints to the Tug-Master of any special requirements that would facilitate a smooth maneuver. 3. Where berthing does not necessitate a tug going out to the outer harbor to secure a ship, such shall be made clear to the Tug-Master.
S/O - 14/2018	NUMBER OF TUGS FOR ASSISTING SHIPS	In conformity with Port Rules and existing Port Tariff for marine services rendered to ships calling at the port, Pilots shall adhere to the following limitations when using tugs to assist ships in their maneuvering: 1. Number of tugs to assist: a. One tug boat for ships up to 10000 GRT b. Two tug boats for ships between 10000 and 25000 GRT c. Three tugs for ships between 25000 and 45000 GRT d. Four tug boats for ships over 45000 GRT 2. Pilots shall not exceed the number of tugs mentioned in paragraph (1) for the corresponding GRT. Still, in special circumstances where the violation is inevitable, a Pilot using an extra tugboat must give an explanatory note with the pilotage certificate. 3. Previous orders non-conformant with the above are hereby revoked.
S/O - 15/2018	AUDIBLE SIGNALS BETWEEN PILOTS AND TUGS	When for any reason, radio communication between a Pilot and a Tug-Master becomes impossible in facilitating maneuvering of a ship, audible signals shall be resorted to using ship and mouth whistles as necessary for which purpose: 1. When a tug is secured on the hook, and it becomes necessary to use the ship's whistle: a. One blast shall mean (turn the ship's bow to starboard) b. Two blasts shall mean (turn the ship's bow to port) c. Three blasts shall mean (pull right astern) d. Four blasts shall mean (stop towing) e. Five blasts shall mean (let go tow rope) 2. When a tug is required to assist by pushing: a. One blast shall mean (turn the ship's bow to starboard)

No.	SUBJECT	BRIEFING
		b. Two blasts shall mean (turn the ship's bow to port) c. Three blasts shall mean (stop pushing) d. Four blasts shall mean (go back to your mooring) 3. Use of audible signals when two tugs are used: Depending on where the ship's bridge is located, the mouth whistle shall control the tug close to the bridge, whereas the tug far from the bridge shall be controlled using the ship's whistle.
S/O - 16/2018	AREAS TO BE AVOIDED BY TUGS	For the safety of tugs assisting in berthing/un-berthing of ships, Pilots shall not order a Tug Master to take his tug beyond the external limits of the following berths towards shallow waters: 1) The southern side of the Inner Harbor: a. 6 IN – Between dolphins and Flint Island. b. 8 OUT – Between internal buoys and Flint Island. c. 8 IN – Between internal buoys and Flint Island. 2) The northern side of the Inner Harbor – All existing berths. 3) All other berths. When it becomes necessary to order a tug to assist in an unusual area, Pilots shall use their discretion based on familiarity with drafts of the tugs and the height of the tide. Adherence to the contents of this standing order will avoid the grounding of tugs and risk to submerged oil pipelines.
S/O - 17/2018	PORT TUG SERVICE FOR SMALL SHIPS	Fishing trawlers and other small ships under 200 GRT berthing and un-berthing at the Fisheries Jetty and other berths shall only use the port tug service when absolutely necessary and with prior permission from the Port Officer or the Harbor Master who would verify whether such assistance is justified. The aim behind this order is to avoid encumbering small ships from unnecessary charges whenever possible.
S/O - 18/2018	FORWARD TUG TO BE KEPT SECURED UNTIL A VESSEL IS FULLY ALIGNED WITH THE CHANNEL	A couple of tug incidents and contacts with the jetty have occurred while sailing out from the Malla wharves jetty. When investigated, the forward tug was cast-off when the ships were either abreast and some 40 meters off the jetty or before swinging clear of it. It has further come to the attention of the Port Officer that all Pilots are following the same pattern when sailing out from Malla Wharves, which is regarded as unsafe and can lead to more problems with jeopardy to port reputation. In regard to the above and the best interest of the safety of ship maneuvering at the Malla Wharves, forward tugs assisting in pulling a ship out of the jetty shall not be cast-off until the ship has been swung fully and aligned with the channel. For this purpose, the method of securing a tug forward shall take one of the two forms hereunder: 1-Securing in a Push-Pull fashion at the shoulders for which tug masters have been sufficiently trained. 2- Securing the tug forward on the Hook from the center lead provided, in the judgment of the Pilot, the total length of the ship + tugs + tow-ropes will not entail any inconvenience. This method of securing can prove very useful where ship engines fail to work Ahead when a ship has been fully swung as the forward tug can then provide immediate towing assistance.
S/O - 19/2018	HANDLING TANKERS/LPG CARRIERS/SHIPS WITH DANGEROUS CARGO IN THE INNER HARBOR	Previous standing orders No. 5/1990 and 22/1990 related to handling Tankers/LPG Carriers/Ships with DG Cargo are hereby revoked. The ships here-in-mentioned are now allowed to maneuver at any time of the day or night in the Inner Harbor. For ensuring the safety of maneuvering, Pilots shall observe the following: 1) Exercise extreme caution when coming alongside/leaving dolphin berths. 2) Report on any improper fenders at the dolphins. 3) Tug assisting ships by Pushing must have their fenders in good condition and fully protruding over any bare steel 4) Any concern related to safety at the mentioned berths must be brought immediately to the attention of the Port Officer/Harbor Master/Asst. Harbor Master. 5) DG Cargo Class 1 carried by General Cargo Ships by conventional methods shall be well protected in strong magazines onboard for discharging cargo alongside. In the Port Officer's opinion, the protection is insufficient. The ship shall have to discharge her cargo in the Stream before being allowed to discharge alongside.

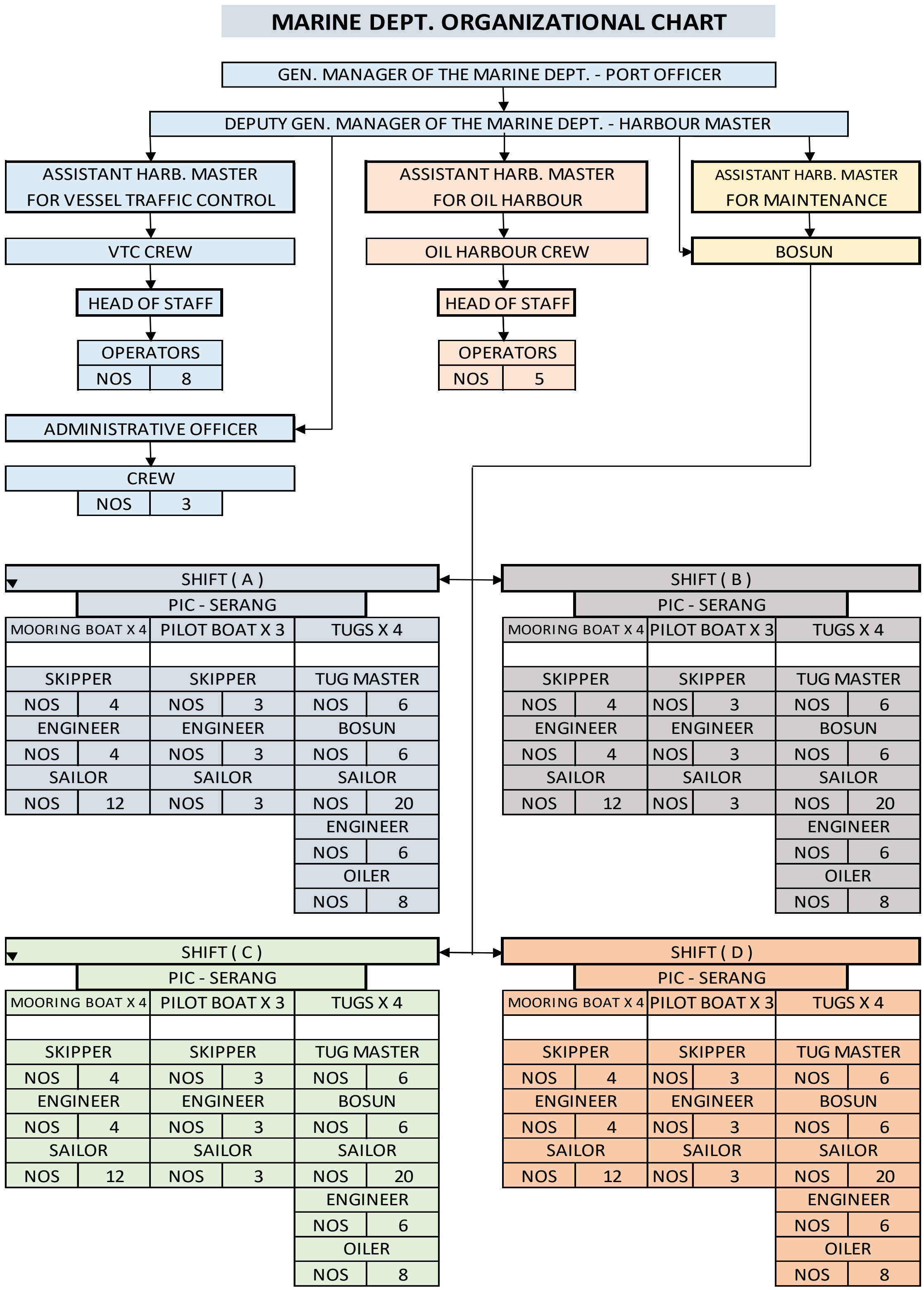
No.	SUBJECT	BRIEFING
		6) Ships arriving with DG cargo shall submit a 24-hour prior arrival notice to the port concerning the cargo. Failing to give such notice would entail a delay in berthing until the ship's agent has processed such notice.
S/O - 20/2018	DRAFTS AND TRIMS FOR TANKERS	1) Tankers proceeding to the Inner and Oil Harbor while in ballast are required to abide by the following conditions of drafts and trims: a. Large conventional tankers without segregated ballast tanks shall be ballasted to half of their summer drafts, ensuring the best conditions of propeller immersion and trim not exceeding 2 meters. Tanks used for ballast shall be fully pressed. b. Large conventional tankers using part of their tank capacity for segregate ballast and MARPOL tankers with dedicated ballast tanks shall ensure that all such tanks are fully pressed and the trim in any case not exceeding 0.015 L (where L is the ships LBP) c. Coastal tankers of up to 7000 S.DWT may have a trim of up to 3.00 meters by the stern provided that it has used and pressed all its ballast tanks and the forefoot is sufficiently immersed. 2) A partly loaded tanker intending to change berth for completing its cargo operation, shall for the purpose of safe maneuvering, ensure that its forefoot and propeller are adequately immersed.
S/O - 21/2018	SHIPS WITH DANGEROUS CARGO CALLING AT THE INNER HARBOR	Ships coming to the port with dangerous cargo, for discharging or in transit, are required to notify the port officer, at least 24 hours before arrival, who will give the necessary directives to the harbor control in its regard. Notification of DG cargo forwarded by a ship must contain its nature, quantity, location on board, and permission for it to enter or discharge the cargo in the outer harbor first. It will appear on the DG board in the harbor control room. Where a ship is allowed to enter with DG cargo on board, "P.E. "denotation will appear abreast of its name in the vessel ETA list in the harbor control room. A ship coming to the port with DG cargo on board without giving prior information about it to the port officer shall have to wait outside until her owners/agent have completed the required formality.
S/O - 22/2018	EXTREME CAUTION REQUIRED WHEN PILOT BOARDING/DISEMBARKING	Pilots are required to exercise extreme caution when boarding/disembarking ships for their personal safety and the safety of the pilot boats. A pilot boat shall not be allowed or ordered to go alongside a ship when entering or leaving the port without ensuring that the lee provided by that vessel is sufficiently safe for boarding/disembarking. Where it is thought that the lee given by the vessel is insufficient, it should be brought to the Master's attention immediately, and proper lee should be demanded. Harbor Controllers on duty, when asked by shipmasters about the side on which to rig the pilot ladders, they shall not state the side, and it would be just sufficient to request their rigging on the lee side.
S/O - 23/2018	ACCOMMODATION LADDERS NOT ALLOWED IN THE OUTER HARBOR	Owing to the risk of damage to Pilot Boats, Pilots shall not use the ship's accommodation ladders for boarding or disembarking from ships in the outer harbor. Pilot ladders alone shall be used for this purpose.
S/O - 24/2018	PRECAUTIONS TO BE OBSERVED WHEN BERTHING AT DOLPHINS	For avoiding damage to dolphin berths & their attachments, the following precautions shall be in mind by the Pilots when securing ships to them: 1) Prevent contact with the bunkering platform, which is un-fendered and not designed to take impact from ships. 2) An offshore anchor shall be used whenever necessary to keep off a ship's bow coming in contact with the un-fendered structure of a Dolphin. 3) Where needed to move Ahead or Astern for positioning using the ship's engine, this shall be done at a minimum speed possible and without rubbing against the fenders, which are not designed to absorb Fore and Aft stresses. 4) A ship shall complete securing alongside resting squarely against Fore and Aft fenders.
S/O - 25/2018	PRECAUTIONARY MEASURES DURING S.W. MONSOON	When securing ships to Buoyed Berths, Dolphins, & Jetties during the South West Monsoon period 15th May to 15th September, the following precautions be enforced to encounter Northerly Squalls and Dusty Winds: 1) In the case of buoyed berths, the ship's insurance wire or a normal wire rope shall be secured to the main stern buoy in addition to the two normal mooring ropes and the stern centered between the buoys. The ship's anchor and bow ropes shall be kept taut. 2) Where a buoyed berth is used for bunkering, cargo operation, whatsoever the case may be, the Pilot shall ensure that the stern of the ship is in the middle of the two buoys when the ship is all fast.

No.	SUBJECT	BRIEFING
		3) At least 60 fathoms of chain shall be used in the Southern Buoyed Berths to prevent the ship's bow from setting in. 4) In the Southern and Northern Dolphins, a ship shall as far as practicable, complete securing with two headlines, two breast lines and two springs at each end, and two stern lines. This is especially best for ships with high freeboards. 5) Ships berthing at the Ma'alla Wharves shall go as far as practicable tie up to double springs and breast ropes at each end and double head and stern ropes. 6) At Little Aden No. 3 Berth, an extra rope at each end of a ship is recommended.
S/O - 26/2018	BERTHING AT No. 7 IN THE SW MONSOON PERIOD	In the southwest monsoon period, which normally prevails from mid-May to mid-September when gusty winds blow from south to south-westerly direction causing vessels, wishing to berth at berth No. 7, to drift towards it with a risk of heavy landing and damage to the unprotected parts of the dolphins, Pilots berthing ships with the assistance of one tug only shall do so by securing the tug aft and using the ship's anchor forward for controlling the drift of the vessel towards the dolphin and end up by securing the ship with about three shackles on the anchor which can later be used for coming off the dolphin. When securing the tug aft, Pilots shall see that such is done on the Hook. Still, if, in the discretion of the Pilot it is deemed safe to secure the tug in a Pull-Push position, the Pilot may do so bearing in mind that an unpleasant situation could arise by this method whereby the tug can push the ship's stern in a northerly direction while trying to make fast.
S/O - 27/2018	STRONG TIDAL SET AT No. 4 JETTY/OIL HARBOR	During spring EBB tides, a strong tidal set is felt across the finger jetty. Special regard shall be given to this effect when berthing deeply laden ships at LA No. 4 jetty. In this condition, it is advisable to have tugs secured on the hook to check any unwanted setting onto the jetty.
S/O - 28/2018	CAUTION TO BE EXERCISED WHEN CASTING OFF SHIPS WITH MOORING WIRE ROPES	Oil Harbor or the Inner Harbor, particularly where mooring wire ropes are involved. In one case (MT MEMPHIS), which was casting off from berth No. LA-4, three-wire ropes were released together from the jetty, one of which was caught up between the propeller and the rudder of the mooring boat (DENAFAH), and while the rope was hove in by the crew stationed forward, the mooring boat was also pulled towards the vessel then out of the water and ultimately upwards and ended up hanging close below the focs'le deck, without the ship's crew being aware of what was happening. To avoid similar accidents recurring in the future, pilots, when casting off, shall advise shipmasters to release one wire rope at a time with a careful watch on the lines being hove is. Where there is a supervisor to control the un-mooring gang, pilots shall liaise all rope releases with his assistance.
S/O - 29/2018	PILOTS TO REPORTS ON SHIP CASUALTIES	1) Whenever a ship is involved in a casualty such as an accident with another ship, colliding with a jetty/its attachments, hitting buoys, fouling ship anchors/buoy moorings, grounding, ETC. The Pilot in charge of piloting such a ship shall forward an elaborate report on the matter to the Port Officer immediately after its occurrence. 2) Where there is suspicion of some latent damage, a Pilot shall draw the attention of the Master of the ship to it and report the same to the Harbor Master at once. 3) It shall be the Pilot's duty to thoroughly inspect and report on any damage sustained before leaving the ship.
S/O - 30/2018	REPORTING ON NAVIGATIONAL AIDS, CRAFTS, AND CREWS	1) Whenever navigational aids, within the port limit, are in such state as to cause concern to the safety of Pilotage, they shall be immediately reported to the Harbor Master, and a note of it kept in the Harbor Control Office for further follow-up by Harbor Controllers. The Harbor Master, for his part, shall liaise with the Technical Department for the necessary restoration of the affected navigation aids. 2) Accidents to YGAPC property coming to the attention of the Harbor Controllers, Pilots, or personnel of crafts shall be immediately reported to the Harbor Master. 3) Where there is a remark on crafts or complaint against personnel employed on them such shall, in the first instance, be made to the Harbor Master who will do the needful in the best interests of work
S/O - 31/2018	REMARKS BY PILOTS ABOUT IRREGULARITIES IN SHIP BERTHING	Where a Pilot, in berthing a ship, has dropped its anchor in an incorrect position or where the length of anchor chain is insufficient or excessive of the usual scope and provided such shall not affect the safety and the safe maneuver of the subject ship and other ships, a remark about such irregularity shall be made on the glass board in the Harbor Control Room immediately after returning ashore so that

No.	SUBJECT	BRIEFING
		other Pilots would take notice of same for taking precautionary measures when piloting other ships and in the event of taking up further Pilotage of the subject ship.
S/O - 32/2018	WITNESSING/REPORTING INJURIES TO SHIP MASTERS	To facilitate the follow-up of treatments and compensation for injuries sustained by the crew of a port craft when working with ships, Pilots are required to immediately report to Masters of all injuries that are brought to their attention by the injured crew before leaving a vessel, whether in-ward or out-ward and a document confirming the injury obtained from the Master of the ship responsible for same. Any difficulties in this regard should be immediately informed to the Harbor Master or the Port Officer.
S/O - 33/2018	VERIFICATION OF LOAD LINE MARKS	In accordance with the International Load Line Rules, every ship calling at the Port and sailing from it shall ensure proper and legible marking of load lines applicable for a particular season. Pilots shall further ensure that ships are compliant with these rules and are not loaded beyond the appropriate mark, which for the time being in force while on the outward voyage. For achieving the here-in-mentioned purpose, Pilots shall observe the following hints: 1) The tropical load line is applicable throughout the year for ships sailing westward of longitude 45 degrees east. 2) The tropical load line applies from 1st September to 31st May of every year for ships sailing eastward of longitude 45 degrees east. 3) The summer load line shall come in force from 1st June to 31st August of every year for a ship sailing eastward of longitude 45 degrees east. The above application is based on (LOAD LINE CONVENTION – Regulation 49 Seasonal Tropical Areas – 2)
S/O - 34/2018	PILOT'S DISCRETIONS TO CHOOSE A SAFE BERTH	Only under the following conditions as Assistant Harbor Master or a Pilot, in charge of piloting a ship, shall have the discretion to secure to a berth which he thinks would be safer for the ship provided it becomes difficult to obtain immediate instructions from the Port Officer or Harbor Master: 1) Where a berth previously assigned for a particular ship becomes unsuitable due to a change of tide/weather. 2) Where particulars of a ship previously submitted prove incorrect, making the assigned berth unsuitable with a risk of damage to the ship. 3) When a ship is sailing out from the port is under some emergency requiring temporary tying up to a safe berth for affecting the necessary repairs.
S/O - 35/2018	DEALING WITH AN UNIDENTIFIED SHIP	A ship calling at the port would normally identify herself, but where this does not happen, then the Harbor Controllers shall follow the hereunder procedure: 1) Try to identify the ship by the various communicative methods available in the Harbor Control. 2) If the unidentified ship drops anchor outside the port limits, the port security shall be informed immediately. 3) Where the unidentified ship enters the port limits and refuses to respond to communications from the Harbor Control, a Pilot shall be sent to her to anchor her in a suitable position in the outer harbor and a Pilotage Certificate signed in that effect. 4) Pilots shall not be sent outside port limits for identifying ships refusing to identify themselves.
S/O - 36/2018	IMMOBILIZATION OF SHIP'S ENGINES	1) Ships shall not immobilize their engines at YGAPC berths without the prior permission of the Port Officer/Harbor Master. 2) Where a ship requires to immobilize her engines, a written request for such shall be forwarded to the Port officer/Harbor Master, and immobilization shall not be undertaken until written permission has been granted. 3) In granting permission to a ship to immobilize her engine, due regard shall be paid to her period of stay in port and to the utility of berths by other ships.
S/O - 37/2018	FOREIGN WARSHIPS CALLING AT THE PORT	When a foreign warship visits the port, the following procedure shall be observed before sending out a Pilot for berthing/un-berthing her : 1) There will be prior written permission about her visit from the Ministry of Defense. 2) Even if the Ministry of Defense permits her entry, the operations room at the Naval Headquarters shall be contacted and informed and approval to berth the ship obtained from it. 3) The procedure in para. 2 shall once again be observed when un-berthing a foreign warship.
S/O - 38/2018	CONVEYANCE OF SICK PERSONS BY PILOT BOATS	1) Whenever a sick crew of a ship is required to be conveyed ashore by a Pilot Boat, such will only be done with prior arrangement with the Port Officer/Harbor Master at a request from the Port Health Officer.

No.	SUBJECT	BRIEFING
		2) Sick crew members with infectious or contagious diseases shall be landed in the Pilot Boat for conveyance ashore on no account.
S/O - 39/2018	DEALING WITH OIL POLLUTION WITHIN PORT LIMITS	Whenever pollution by Oil is sighted within the port limits, the person sighting it shall make an immediate report about it to the Harbor Control, which in turn shall report the matter to the Maritime Affairs Authority Office, in Aden, who will take the necessary measures to deal with the situation in an appropriate manner.
Standing Orders canceled till further notice		
S/O - 01/2018	BERTHING/UNBERTHING FOREIGN TUGS WITH BARGES ON TOW	Tugs calling at the port for bunkering and other purposes while towing barges astern shall be attended to by port tugs before entering the approach channel leading to the inner harbor. Such attendance, whereby the tug will be secured to the stern of the barge for steering it, is deemed essential for avoiding any kind of contact between the barges being towed and the navigational buoys marking the approach channel. When sailing out from the port, the port tug will again escort the barge until swell clear from the channel. For providing this extraordinary service, the tug-fee legible will be applicable for special towage in the outer harbor for a maximum period of two hours. Where the use of a second tug becomes necessary in assisting berthing, the fee for such will be chargeable as for tending normal maneuvering. Furthermore, it may be necessary to transfer personnel from the towing tug to the barge, which is normally unmanned, using a port launch for which a lump sum of U.S. 50 $ will be charged. For the purpose of having a correct estimate of fees for the port tug that will be used in the maneuvering, shipping agents are advised to coordinate all tug calls to Aden with the undersigned well in advance of their arrival.
S/O - 02/2018	HINTS TO BE OBSERVED AT FLOATING DOCK AND THE NATIONAL DOCKYARDS	The currently existing Floating Dock (NOW SUNK WITH ATTEMPTS TO REFLOAT IT) is being controlled by the Ministry of Fish Wealth and is located at the Fisheries Harbor. When entering or leaving the Floating Dock, Pilots shall have due regard to the following points: 1) When docking, a ship shall be placed in a suitable position, and the Pilot's responsibility shall cease after ropes have been secured and the ship hove in by personnel of the Floating Dock. 2) When undocking, the Pilot shall assume charge when the ship has been clear of the Dock. 3) When berthing at the National Dockyards Jetty, where water depth is restricted, a mooring boat shall be used for running out the ship's ropes. Extreme caution shall be exercised to prevent a Tug boat from grounding when used to assist in berthing

ANNEX IV – MARINE OPERATIONS DEPARTMENT STAFF ORGANIGRAM



ANNEX V – ADEN PILOT TRAINING SIMULATOR PROGRAM, UNIVERSITY OF LIVERPOOL

PROPOSED SYLLABUS

1. Position of the pivot point;
   - when moving ahead
   - when stopped in the water
   - when moving astern
2. Types, effects, and limitations of rudders including;
   - variation of turning moment with angle and the consequent effect on speed through the water
   - blocking the flow of water into the propeller when going astern
   - differences between conventional and high lift rudders
   - steering when maneuvering astern
3. Effects of propulsion including;
   - single and twin screw configurations
   - differences between fixed and controllable pitch propellers
   - delays in response to controls
   - a brief overview of specialized propulsions systems
4. Effects, limitations, and use of bow and stern thrusters, including;
   - variation of thrust with speed through the water
   - variation in turning moment in relation to variations in pivot point
5. Interpreting information contained in vessels' maneuvering booklets/diagrams including;
   - Advance and transfer
   - turning circle diameter
   - stopping distances
   - variations due to speed and loading condition
   - Calculating "wheel over" and speed reduction positions
6. Operation of the helm, engines, and bow thrusters to execute maneuvers including;
   - turning
   - maintaining steering control whilst slowing
   - stopping
7. Theory and effects of interaction between ship, bottom, banks and other vessels, including tugs;
   - calculating "squat."
   - recognition of interaction
   - effect of interaction on ship handling
   - maneuvering in the vicinity of other vessels (including tugs)
   - strategy for negotiating areas with limited under keel clearance
   - strategies for negotiating bends in canals and similar waterways
   - strategies for passing and overtaking other vessels in confined channels
8. Effects of wind including;
   - differences according to vessel type and loading configuration

- leeway and turning maneuvers
- maneuvering astern
- calculating wind load

9. Effects of current including;
    - speed over the ground
    - lateral motion
    - maneuvering astern

10. Effects, limitations, and use of tugs including;
    - pull mode
    - push mode
    - characteristics of different propulsion types
    - variations due to length of the tow line and under keel clearance of vessel assisted
    - variations due to speed of vessel assisted and prevention of "girding"
    - techniques when using two or more tugs

ANNEX VI – DETAILS OF MARINE CRAFT, ADEN

LIST OF YGAPC MARINE CRAFT AND THEIR CURRENT CONDITION (30 JANUARY 2021)

NAME/TYPE OF MARINE CRAFT	DETAILS	CURRENT CONDITION	COMMENTS/RECOMMENDATIONS
MARINE DEPARTMENT CRAFT			
Wadi Hassan, ASD/FiFi tug, Damen 2002	4,827 HP, 56 T bollard pull ahead, 52 T astern	In service, good condition	Monitor boat use/condition
Wadi Hatib, ASD/FiFi tug, Damen 2002	4,827 HP, 56 T bollard pull ahead, 52 T astern	Limited utilization. Failure in one propulsion system. YGAPC will send the tug to Djibouti for repairs	Complete repair program and engine automation installation
Mayyun, Conventional tug, Damen 1999	2,720 HP, 41 T bollard pull	In service after recent repairs (Dec 2020). Having some problems which are attended to by Technical Department engineers	The tug has had long-term reliability problems
Dhu Hirab, Conventional tug, Damen 1999	2,720 HP, 41 T bollard pull	Under repair by the Technical Department	Monitor boat use/condition when in service again
Socotra, Pilot Boat	Twin-screw, 18 knots	In Service/ Having some problems which are fixed on the spot by Technical Department engineers	Monitor boat use/condition
Al Saleh, Pilot boat, UAE 2006	Twin-screw, 19 knots	Under repair by the Technical Department	Monitor boat use/condition when in service again
Khaleej Aden, Pilot Boat	Twin-screw, 17 knots	Under repair by the Technical Department	Monitor boat use/condition when in service again
Najran, Mooring boat, fiberglass, UK 1978	180 HP, single screw	Under repair by the Technical Department	Monitor boat use/condition when in service again
Hamdan, Mooring boat, fiberglass, UK 1978	156 HP, single screw	In service, reasonable condition	Monitor boat use/condition
Sanaa, Mooring boat, fiberglass, UK 1978	156 HP, single screw	In service, reasonable condition	Monitor boat use/condition
TECHNICAL DEPARTMENT CRAFT			
Floating Crane- dumb barge, UK 1964	30 T lifting capacity	In service. In reasonable condition after December 2020, refit on the slipway. Mainly employed in servicing mooring buoys.	
Barraqa – Hydrographic Survey Boat, UAE 2012	Single screw, 10 knots	In service, engine in good condition. Multi-beam echo sounding (MBES) survey equipment is not working. Used for limited survey work using portable single beam portable echo sounder and GPS	MBES requires attention from the survey system supplier
Donafa, Floating Crane, Damen 2017	Self-Propelled	In service, in good condition. Used mainly to service navigational buoys in the channel and inner harbor	Monitor boat use/condition

NAME/TYPE OF MARINE CRAFT	DETAILS	CURRENT CONDITION	COMMENTS/RECOMMENDATIONS
Hunaish, Service Boat	Single screw, 7 knots	Used to tow the 30 Ton floating crane, transport divers, and any small jobs required by the Technical Dept	Monitor boat use/condition
OIL HARBOR CRAFT*			
Socotra, ASD/FiFi tug, Built in China, delivered 2016	5,218 HP, 58 T bollard pull ahead, 53 T astern	In service, good condition	
Noor Aden, ASD/FiFi tug, Built China, delivered 2013	6,665 HP, 70 T bollard pull ahead, 64 T astern	In service, reasonable condition	
Rubac, Mooring boat, steel,	Single screw	Under repair by the Technical Department	
Ihsan, Mooring boat, Steel,	Single screw	In service, with some mechanical problems that are attended to by Oil Harbor Technical Department staff	
Tuban, Mooring boat, steel,	Single screw	In service, with some mechanical problems that are attended to by Oil Harbor Technical Department staff	
Aqqan, Mooring boat, steel,	Single screw	In service, with some mechanical problems that are attended to by Oil Harbor Technical Department staff	

* Note: Pilots report that, in the Oil Harbor, for most maneuvers, only one mooring boat is available/working. This increases the time required to moor and unmoor tankers. Most tankers calling at Aden have wire mooring ropes which take more time to handle.

ANNEX VII – MARINE AUDIT CHECKLIST

1. Project Management
    a. Infrastructure
        i. Aquatics
            1. Dredging
            2. Approach Channel
                a. Entrance Directions and Anchor Designated Area
                b. Channel width, channel depth, PIANC Guidelines
                c. Nautical Feasibility: Departure Maneuvers, Arrival Maneuvers, Traffic Flow Capacity,
            3. Port Basin Design
                a. Width of Port Basin: stopping area, maneuvering area, port entrance, turning area
                b. Depth of Port Basin: Design Draft, Design Water level, Wind or Tug Induced Level, Squat, Maneuvering Margin, Wave Induced Motions
            4. Breakwater and the Above Mentioned Minimum Requirements: Rubble Mound or Caisson Breakwater. Xbloc, Accropode,
                a. Environmental Conditions
                b. Wind
                c. Offshore Wave Conditions
                d. Water Levels
                e. Currents
                f. Bathymetry and Topography
        ii. Description of Project Site
            1. Operability of the Port
                a. Minimum and Maximum Downtime
            2. Description of the Coastal System
                a. Rivers, Fresh Water Currents
                b. Sedimentations
                c. Canyons, Erosions, Nearshore wave climate
        iii. Functional Requirements and Terminal Layout
            1. Design Criteria
                a. Quay-Design
                    i. Nautical depth along the quay: Design Draft, Design Water level, Wind or Tug Induced Level, Squat, Maneuvering Margin, Wave Induced Motions
            2. Terminals and distances from each other
                a. Superstructure
        iv. Marine Equipment
2. Management/Port Authority
    a. Port Authority and Legalizations
3. Commercial
    a. Shipping Contracts
        i. Marine Services
    b. Tariff Sheet
        i. Port Authority Agreement
        ii. Port Charges Agreement

            l. Port Dues

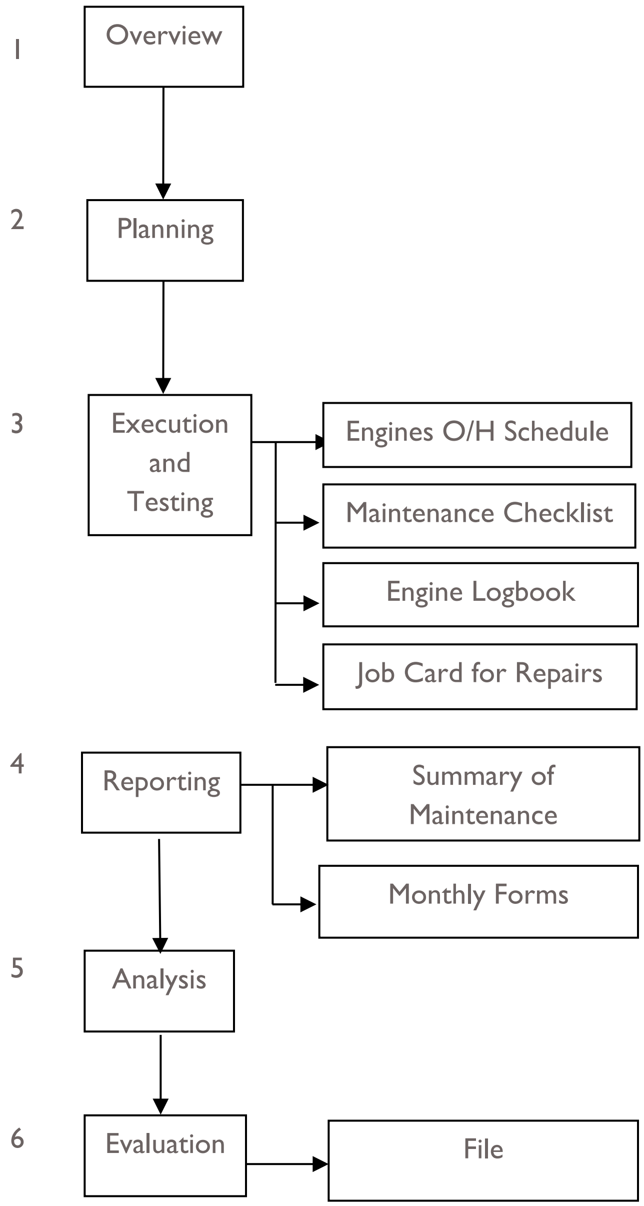
4. Marine
    a. Harbor Master
        i. Anchorage Agreements and Tariff
        ii. Approach Channel and Turning Basin Approvals
        iii. Pilotage Agreement
        iv. Tugging Agreements
    b. Pilot Operations
        i. Pilots Contracts
        ii. Pilot Boats
    c. Port Fleet
        i. Pilot Boats
        ii. Tug Boats
        iii. Floating Cranes
        iv. Barges
        v. Water Tankers
        vi. Bunker Tankers
        vii. Floating Vessel Dock
        viii. Maintenance Boat, Sea Bed Sounding Equipment
        ix. Bilge Water Collector, Waste Collector

ANNEX VIII – MARINE TARIFF

MARINE TARIFF (YGAPC SERVICES & FACILITIES TARIFF & CHARGES REGULATION)

Charges	1st Category Vessels	2nd Category Vessels	3rd Category Vessels	Notes
Navigational Aid (N.A)	US$7.2/100 Tons GRT	US$ 3/100 Tons GRT	US$ 7.2/100 Tons GRT	Minimum Fees for N.A US$ 100, 36, & 200, respectively Excluded from charges are Yemeni warships and Government vessels not intended for commercial purposes, ships waiting in the outer harbor for receiving medical treatment (not more than 72 hours), and maritime units of other Yemen ports into the Yemen Maritime Affairs Authority
Port Dues	US$9.6/100 Tons GRT	US$4.2/100 Tons GRT at port harbor except for repair purposes US$ 1.8/100 Tons GRT outside the port harbor for repair purposes US$ 0.72/100 Tons GRT at the port harbor for repair	US$ 72/foreign dhow US$ 42/local dhow (lump sum)	Minimum Fees for P.D US$ 138, 60 respectively Excluded from charges are 4th category vessels, Yemeni warships and Government vessels not intended for commercial purposes, ships waiting in the outer harbor for receiving medical treatment (not more than 72 hours), and maritime units of other Yemen ports and to the Yemen Maritime Affairs Authority
Pilotage (marine pilot & boat)	US$ 5.4/100 Tons GRT per operation US$ 156 per hour delay	US$ 2.4/100 Tons GRT per operation US$ 156 per hour delay Detention US$ 72 lump sum for Attendance	none	Minimum fees for pilotage US$ 156 & 72 per operation. Special conditions apply for exceeding the 2-hour pilotage operation window, outside the harbor operations, transfer within harbor limits, etc. 50% charge increase for official holidays and weekends. Exemptions on pilotage apply as per YGAPC tariff $ charges regulation.
Towage	US$ 13.2/100 Tons GRT per operation US$ 540/Tug lump sum for Oil Terminal US$ 360/Tug per half hour for Detention US$ 360/Tug lump sum for Attendance US$ 360/Tug per half hour after towage operation 2-hour window	US$ 4.44/100 Tons GRT per operation US$ 540/Tug per half hour for Detention US$ 540/Tug lump sum for Attendance US$ 540/Tug per half hour after towage operation 2-hour window	None	Towage operation is capped at 2 hours Minimum towage operation charges US$ 360 & 600 respectively. 50% charge increase for official holidays and weekends. Excluded from towage are vessels under 200 GRT, pleasure boats, 4th category vessels, Yemeni warships and Government vessels, and maritime units of other Yemen ports and to the Yemen Maritime Affairs Authority
Mooring & Unmooring	US$ 8.4/100 Tons GRT	US$ 1.8/100 Tons GRT	US$ 1.8/100 Tons GRT	Minimum Fees US$ 300, 60, & 60 respectively Charges apply for vessels' berth changes unless the proper authority requests the change 50% charge increase for official holidays and weekends. Excluded from charges are 4th category vessels and maritime units of other Yemen ports and the Yemen Maritime Affairs Authority

ANNEX IX – OPERATIONS AND MAINTENANCE PLAN (O&M PLAN)



PROCESS

1. OFFICE

The Operations Manager (Technical) will determine standard Planned Maintenance System (PMS) for each individual vessel

The Contract Manager will maintain the developed Planned Maintenance System for each vessel

The Operations Manager (Technical) and Contract Manager will identify the Critical Items onboard for additional care and maintenance to promote their reliability

2. OFFICE

Develop PMS for each vessel, including engines O/H schedule

Develop Critical Item list of machinery that require additional care and maintenance

The Contract Manager shall indicate which items to be performed by the ship's crew and which by shore contractor

The Contract Manager will work closely with the vessel for any maintenance that requires the assistance of a shore contractor

3. MASTER AND CHIEF ENGINEER

Carry out maintenance and repairs stated under the PMS and engine O/H schedule

Carry out vessel monthly machinery/equipment inspection

Carry out checks on all LSA and FFE

All maintenance work done are to be logged down into the official engine room E/R logbook

Test and inspect all standby and safety equipment

4. OFFICE

The responsible Contract Manager shall conduct a bi-annual inspection onboard

Before any scheduled docking, the Contract Manager shall inspect the vessel and collate all the repair item list and send out for contractor quotation

5. MASTER AND CHIEF ENGINEER

Report to the office on any outstanding repairs or improvement plan, which will detail deferred repairs and/or dry dock work

The Master and Chief Engineer shall report any defects onboard to the office via email or fax.

Submit monthly forms and summary of maintenance

6. OFFICE

Analyze reports from vessel and logs

7. OFFICE

The Operations Manager (Technical) evaluates the annual cost of maintenance and repairs in conjunction with the Chief Operating Officer.

The Operations Manager (Technical) will verify the effectiveness of maintenance and repairs conducted

Classed vessels regular Dry Docking of 5 years' intervals (special). Un-classed vessels such as pilot boats and launches, dry-docking as per operational/maintenance requirements, on or about once every 2 to 3 years.

ANNEX X – INTERNATIONAL LEGISLATION: PILOTAGE

- IMO Resolution A.159 (ES. IV), Recommendation on Pilotage, 27th November 1968.
- IMO International Convention for the Safety of Life at Sea (SOLAS), 1974 (SOLAS) Chapter 23/V. Complemented by IMO Resolution A.1045 (27), 2011 for Pilot transfer arrangements. This focuses on the pilot ladder that is installed on all ships to indicate the requirements in terms of;
  - Ropes
  - Position
  - Accommodation ladders used in conjunction with Pilot ladders
  - Mechanical pilot hoist
  - Access to deck
  - Safe approach of the pilot boat
  - Installation of the pilot ladder winch reels
  - Point of access
  - Physical positioning of pilot ladder winch reels
  - Handrails and handgrips
  - Securing of the pilot ladder
  - Mechanical securing of pilot ladder winch reel
- IMO Maritime Safety Committee. MSC/Circ. 1156, 23rd May 2005 Guidance on the access of Public Authorities, Emergency response services, and Pilots on board ships to which SOLAS chapter XI-2 and the ISPS Code applicable. This includes;
  - unnecessary delays of the pilot on the ship bridge that could jeopardize the ship's safety and other ships nearby.
  - Inhibiting access of public authorities on board and obstructing them from allowing their duties.
  - Other national frameworks related to access and functioning of pilotage.
- IMO Resolution A.601 (15). Provision and display of maneuvering information on board ships. This regulates the Provisions and display of maneuvering information on board ships mainly;
  - Pilot card: to be filled in by the Captain
  - Wheelhouse poster: permanently displayed in the wheelhouse. It contains general, particular, and details information describing manoeuvers.
  - Maneuvering booklet: contains information from both the wheelhouse poster together with other available maneuvering information.
- IMO Resolution A.960 (23). Recommendations on Training and Certification and Operational Procedures for Maritime Pilots other than Deep-Sea Pilots, including Recommendation on Training and Certification of Maritime Pilots and other Deep Sea Pilots and Recommendations on Operational Procedures for Maritime Pilots other than Deep Sea Pilots. A list of recommended trainings was put here below;
  - Communication with authorities and vessels
  - Maritime English
  - Emergency situations and contingency plans with local authorities
  - Bridge resource management for pilots
  - Simulations on emergencies
  - Ship handling using manned models
  - New bridge equipment and navigation aids
  - Legislation and regulations

- Personal survival training
  - Personal safety training
  - Emergency first aid
- Maritime Pilots are divided into the following classes;
  - Class 1 Pilots are licensed to pilot any ship
  - Class 2 Pilots are licensed to pilot ships up to 300 m LOA
  - Class 3 Pilots are licensed to pilot ships up to 250 m LOA
  - Class 4 Pilots are licensed to pilot ships up to 200 m LOA
  - Class 5 Pilots are licensed to pilot ships up to 170 m LOA
  - Class 6 Pilots are licensed to pilot ships up to 140 m LOA

For Pilotage, training is divided into six different categories:

1. Simulation
2. Legal framework
3. Electronic navigational aids
4. STCW courses
5. Specialized courses
6. Effective Communication

Simulation	Legal Framework
Computer-Based Simulation (Virtual)	Advanced Collision Regulations for Pilots
Ship Handling Techniques	Fatigue, Sleep, and Medication
Azi Pods Techniques	Pollution Prevention Course
Emergency Ship Handling	Pilotage Regulations
Beaching Techniques	**Electronic Navigational Aids**
Radar Training Simulation	Automatic Identification Systems & ECDIS Training
Search & Rescue	E-Navigation for Pilots & Portable Navigation Systems PPNS
Bridge Resource Management for Pilots	NARAS – Management Level
Use/limitations of various tugs	Use of Radar in Restricted Visibility
Tractor Tugs	ECDIS Generic Training Module 1.27
Tug Escort Training	**STCW Courses**
Emergency Towing Operation	Personal Survival Techniques (STCW 95 A-VI/1-1)
Pilot Professional Development Course	Advanced Fire Fighting (STCW 95 A-VI/3)
Manned Models	Personal Safety & Social Responsibility (STCW 95 A-VI/1-4)
Ship Handling Techniques	Medical First Aid (STCW 95 A-VI/4-1)
Advanced Ship Handling Techniques	Global Maritime Distress & Safety Systems (STCW 95 A-IV/2)
Emergency Ship Handling	**Specialized Courses**
Azi Pods Course	Tanker Familiarization Training (STCW 95 A-V/1)
Pilot Professional Development Course	LNG Familiarization
Effective Communication	Specialized Tanker Training Program Oil (STCW 95 A-V/1)
Bridge Resource Management for Pilots	Specialized Tanker Training Program Liquefied Gas (STCW 95 A-V/1)
Mentor Training for Pilots	Specialized Tanker Training Program Chemical (STCW 95 A-V/1)
Media response workshop	Crisis Management & Human Behavior Training (STCW 95 A-V/2)
Stress Management Course	Ship Security Officer (STCW 95 A-VI/5)

MARINE PILOT TASKS:

- Adviser to Ship Captain "Captain remains responsible for the conduct and navigation of the Ship in all respects."

- Navigational control mainly indicating convenient routes and vessel nautical maneuvers necessary for safe navigation and port approach.
- Coordinate mooring and towing services of the port.
- Report on failure or breakdown of beacon signals from the port and its vicinity.
- Report any vessel deficiencies to maritime authority.
- Report if any pollution sources are found in port waters.
- Report any incidents arising during navigation in port waters to the maritime authority and port authority.
- Participate in consultations for the maritime authority, port authority, and maritime community.

ECONOMIC RECOVERY & LIVELIHOODS PROGRAM (ERLP) - YEMEN

ANNEX 28

MAAP HOSPITAL DIAGNOSTIC REPORT

March 2021

Prepared for the United States Agency for International Development, USAID Task Order # 72027920M00001

USAID/Yemen - Economic Recovery & Livelihoods Program (ERLP)
The Pragma Corporation, 116 East Broad Street, Falls Church, VA 22046

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BACKGROUND

Maap Hospital was established in April 2020 as Aden's first private hospital focusing on maternal and child health services. The hospital planned to open new departments to meet community needs, but it had to improve its medical and administrative systems and processes to do so. The expansion was expected to create 15 new doctor and nurse jobs.

This diagnostic assessment was conducted through the partnership agreement signed between the hospital and USAID's Economic Recovery & Livelihoods Program (ERLP).

HUMAN RESOURCES

Category	No. of Employees	Category	No. of Employees
Gynecology consultants	2	Anesthesia assistants	1
Pediatrics Specialist	1	Nurses and midwives	21
Dental Specialists	2	Administration staff	6
Internal medicine consultant	2	Accounts staff	1
General Doctors	4	Reception staff	1
Anesthesiologists	1	Security personnel	4
Laboratory technicians	2	Housekeeping staff	4
Radiology technicians	1	Drivers	2
Pharmacists	3	Storekeeper	1
Operations technicians	3	Maintenance	1

DEPARTMENTS

No.	Department	Remarks
1.	Administration	
2.	Outpatient clinics	1. Obstetrics and Gynecology 2. Pediatric 3. Internal Medicine 4. Surgery 5. Dental 6. Ultrasound Clinic
3.	Neonatal intensive care unit	Six incubators and four beds
4.	Operation theater	One theater + sterilization unit
5.	Emergency	
6.	Pharmacy	
7.	Laboratory	
8.	Radiology	X-ray
9.	Admission rooms	
10.	Delivery (maternity unit)	Two delivery tables
11.	Intensive care unit	Five beds (one bed completely equipped)
12.	Store	

SITUATION ANALYSIS

SWOT ANALYSIS

The SWOT analysis was conducted to identify the hospital's current operational situation and assess key gaps or issues influencing its ability to expand effectively. The SWOT method helps the hospital's administrative team identify and understand positive and negative factors in the internal environment within the hospital's control and potential external threats or opportunities that could impact the hospital's growth plans.

The SWOT analysis for Maap Hospital focused on management and medical services. All the information presented below was obtained from interviews conducted with the administrative and medical staff across various departments and from observations undertaken within the different departments.

HOSPITAL INTERNAL ENVIRONMENT

LEADERSHIP AND MANAGEMENT

The leadership and management component assessed a wide range of administrative factors, including staffing; the hospital's organizational chart; staff satisfaction; administrative policies; strategic directions such as mission, vision, values, and goals; planning; quality and patient safety; IT; administrative key performance indicators (KPIs); and partnerships and resources.

Key Strengths

1. There is a qualified administrative director available during all working days.
2. Essential departments are in place and functioning, including finance, procurement, storage, maintenance, IT, and human resources.
3. Staffing levels are sufficient for the services provided in the hospital.
4. There is continuous improvement of infrastructure and service delivery.
5. There is harmony among the hospital leaders.
6. The hospital leaders are keenly interested in implementing quality improvements.
7. There is a partial electronic system in place in the reception office.
8. There is an emergency power backup system for the hospital equipment.
9. The hospital board of directors holds periodic meetings to discuss hospital issues, make decisions, and follow up on implementation.
10. Staff members are proud of their job, work with team spirit, and actively participate in meetings and workshops.

Significant Weaknesses

1. The organizational chart needs to be improved to reflect all hospital activities.
2. There are no job descriptions for hospital leaders and staff.
3. There is no strategic direction or operational plan.
4. There is no marketing plan.
5. There is no health records specialist.
6. Hospital furniture and equipment are not maintained on a regular basis.
7. There are no administrative policies for human resources, procurement, maintenance and infrastructure, storage, or public relations and customer service.
8. There are no quality specialists or quality committees for different hospital departments.
9. There is no comprehensive electronic medical records system.
10. There are no administrative KPIs to evaluate and monitor, nor a clear mechanism for staff assessments.
11. There is no mechanism for evaluating staff satisfaction or activating continuous in-service training.

MEDICAL SERVICES

The medical services component assessed issues related to the medical staff, infection control and disease prevention, patient safety policies, emergency care, admissions, laboratory services, anesthesia, radiology, gynecology and obstetrics, surgery, neonatal care, patient and community satisfaction, pharmacy, and medical KPIs. Results are presented below.

Key Strengths

1. There are many medical departments (e.g., emergency, laboratory, radiology, gynecology and obstetrics, surgery, admission rooms, neonatal incubator, anesthesia, and pharmacy) with the medical equipment needed to provide health services for patients.
2. There is a qualified medical director on duty each working day.
3. Qualified doctors, midwives, and nurses are available to provide health services.
4. The medical staff is enthusiastically implementing the quality improvement program.
5. The duty roster and on-call lists during working hours are available for surgeons, anesthesiologists, nurses, and other employees.

6. The obstetrics and neonatal intensive care departments have adequate coverage by a qualified physician, midwifery, and nursing staff 24/7.

7. The hospital has available the needed delivery table, all basic delivery instruments, prenatal cardiotocography (CTG) machine, oxygen supply, ultrasound machine, ambulance, and basic delivery drugs for childbirth.

8. Newborn infants constantly receive proper care from qualified nurses and midwives.

9. Obstetrics department medical records are properly completed.

10. There is an isolation room to receive infectious disease patients.

11. The operation theater and premature infant incubation facilities have suitable sterilization machines and instruments.

Significant Weaknesses

1. There is no health care quality system that includes policies and procedures, follow-up forms, or checklists in the medical departments.

2. The medical staff has not been trained on health care quality policies and procedures, follow-up forms, or checklists.

3. Some medical devices and supplies are not available in the laboratory and emergency departments (e.g., crash cart, defibrillator, cardiac monitoring equipment).

4. There is no committee for quality and infection control, ensuring that representatives from all departments are responsible for developing a quality/infection control plan and quality/patient safety policies, with follow-up forms and checklists for performance monitoring.

5. There is no case triage system in the emergency department.

6. There are no infection control policies, follow-up forms, or checklists.

7. There is no system for waste management and segregation.

8. There is no mechanism for measuring patient satisfaction or using results to improve performance.

9. There are no KPIs for medical services.

HOSPITAL'S EXTERNAL ENVIRONMENT

MANAGEMENT AND MEDICAL ASPECTS

Opportunities

1. USAID/ERLP is providing technical assistance support.

2. The hospital has a good local reputation.
3. Organizations are available that provide potential maternal and childhood support.
4. There is no local competition.
5. The hospital offers specific health services which attract women/families who need them.

Threats

1. The deteriorating security situation in Aden.
2. Foreign currency exchange instability.
3. Public health crises, including COVID-19 and malnutrition.
4. The local community is severely economically distressed due to ongoing crises.
5. Medical supplies and fuel are scarce in the local market.
6. Emigration of medical practitioners.

KEY FINDINGS

The SWOT analysis underscores that Maap Hospital benefits from numerous strengths. At the same time, the envisaged ERLP intervention is well poised to address the hospital's key identified internal weaknesses, with tightly administrative and healthcare service management systems and improvements. To address external threats, ERLP recommends that hospital management establish a reserve stock for fuel and medical supplies to account for scarcities in the local market and implement infection control policies designed through ERLP support to help stem the spread of COVID-19.

Major recommended improvements include:

1. Adjust the organizational chart to reflect major hospital activities accurately.
2. Establish job descriptions for hospital management and staff.
3. Develop a strategic direction and operational plan.
4. Prepare a marketing plan.
5. Activate outpatient health records.
6. Develop clear administrative policies for human resources, procurement, maintenance and infrastructure, storage, and public relations/customer service.
7. Design infection control and patient safety policies, follow-up forms, and checklists.
8. Develop a policy for waste sorting and management.

9. Appoint a quality committee with representation from each hospital department.
10. Identify and develop medical and administrative KPIs.
11. Train staff on quality improvements and assurance to meet and enhance hospital services.
12. Develop an objective and practical survey mechanism for evaluating staff and patient satisfaction and using the results to inform performance improvement.

GAP MATRIX

The following gaps and recommendations are based on the diagnostic assessment conducted 22-23 February 2021 related to the Maap Hospital Partnership Agreement (PA) with USAID/ERLP.

DESIRED FUTURE STATE	CURRENT SITUATION	GAP	RECOMMENDED ACTION PLAN
ADMINISTRATIVE ASPECTS:			
There is an updated organizational chart and TOR	No approved organizational chart and TOR	• Need for organizational chart approval and development of TORs	• Assessment/improvement of the current organizational chart • Approval of the updated organizational chart • Development of written TORs for the medical and administrative staff
A quality specialist and quality committee represent the different departments with TORs and a quality plan	No quality specialist or quality committee available	• Need to appoint a quality specialist and a quality committee with representatives from each department and develop a quality improvement plan	• Appointment of a quality specialist • Appointing a quality committee with representatives from each department • Development of a written TOR for the Quality Committee • Creation of a plan for quality improvement
Marketing plan prepared	No marketing plan currently exists	• The marketing plan needs to be developed	• Development of a marketing plan
Creating an outpatient health records system	No outpatient health records exist	• The procedure to establish an outpatient health records system needs to be approved by the management	• Getting approval to establish an outpatient health records system
Development of administrative policies for human resources, procurement, maintenance and infrastructure, storage, and public relations/customer service	No administrative policies currently exist	• Administrative policies need to be established and approved	• Development of administrative policies • Approval of the developed policies by the hospital leaders
MEDICAL ASPECTS:			
Infection control and patient safety policies are available	The hospital has been working without infection control and patient safety policies	• Infection control and patient safety policies need to be established and approved	• Development of infection control and patient safety policies • Approval of the developed policies by hospital leaders
Quality checklist and data collection forms have been developed and approved	The hospital does not have a quality checklist or data collection forms	• Lack of approved quality checklists and data collection forms	• Development of the quality checklists and data collection forms
Infection Control Committee has been trained on checklist, data collection forms, and Occurrence Variance Report (OVR) system	There is no staff or Quality and Infection Control Committee trained on the checklist, data collection forms, or OVR system	• There is no Quality and Infection Control Committee • The staff has not been trained on quality tools regarding infection control	• Appointment of Infection Control Committee • Training of the Staff on quality tools regarding infection control

DESIRED FUTURE STATE	CURRENT SITUATION	GAP	RECOMMENDED ACTION PLAN
A policy for waste sorting and management has been developed.	No waste sorting and management policy exists	• Policies for waste sorting and management need to be formed	• Formulating and developing waste sorting and management policies.
Housekeeping staff have been trained on waste sorting and how to handle body fluid spills according to approved policies	Housekeeping staff have not been trained on waste sorting and do not know how to handle bodily fluid spills according to approved policies	• Housekeeping staff must be trained on waste sorting and need to have the skills for handling bodily fluid spills according to approved policies	• Training housekeeping staff on waste sorting • Training housekeeping staff on how to handle bodily fluid spills according to approved policies
Key performance indicators (KPIs) regarding medical aspects and infection control have been developed	KPIs do not currently exist	• There are no KPIs regarding medical aspects and infection control.	• Setting up and developing KPIs regarding medical aspects and infection control
Quality and infection control and medical committee staff have the knowledge and skills to measure KPIs	The staff of the Quality and Infection Control and Medical Committee has not been trained on KPIs	• Quality and infection control and medical committee staff need to acquire the skills for measuring KPIs.	• Training Quality and Infection Control and Medical Committee staff on KPIs

TECHNICAL ACTION PLAN

Based on the diagnostic assessment and the PA, the technical assistance action plan will be implemented as indicated in the table below:

#	ACTIVITIES	DELIVERABLES/ MILESTONES	RESPONSIBLE	PERIOD		DAYS
				FROM	TO	
	ASSESSMENT					
1	1. Assessment of the most important standards related to improving quality, infection control, and main administrative requirements. 2. Conducting SWOT analysis with hospital staff (Internal & External Environment)	Assessment Report	Quality Consultant	22-2-2021	23-2-2021	2
	DESIGNING ADMINISTRATIVE AND MEDICAL POLICIES AND PROCEDURES					
2	1. Appointment of the Quality Committee 2. Developing the hospital's strategic direction, including reviewing mission and vision, establishing hospital objectives and strategic goals 3. Designing the core administrative policies 4. Designing the core quality and patient safety and infection control policies/procedures	Working Manual of related policies and procedures	Quality Consultant + Hospital manager + Quality committee	11-4-2021	15-4-2021	5
	APPLICATION OF QUALITY SYSTEM (POLICIES AND PROCEDURES)					
3	Train the staff on the application of the new policies: 1. Hospital quality structure and reporting 2. Hospital quality procedures/checklist 3. Data collection forms 4. Quality improvement report 5. Occurrence Variance Report (OVR) system	Maap Hospital Quality System Guide (policies and forms)	Quality Consultant + Quality Committee	18-4-2021	20-4-2021	3
	KEY PERFORMANCE INDICATORS (KPIS)					
4	**Conducting of (KPIs) that include the following**: 1. Clinical Measures 2. Integrated Leadership Measures (ILM) 3. Managerial Measures 4. International Patient Safety Goals (IPSG) Measures	KPIs list	Quality Consultant + Quality Committee	21-4-2021	22-4-2021	2
	END OF THE MISSION AND WRITING THE FINAL REPORT					
5	1. Approving the quality system 2. Assessing and introducing outputs and findings 3. Finalizing a draft of the quality plan by the Quality Committee to ensure implementation 4. Staff feedback 5. Consultant recommendations 6. Completion and submission of the final report	Final Report	Quality Consultant + Quality Committee	25-4-2021	26-4-2021	2

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FROM THE AMERICAN PEOPLE

ECONOMIC RECOVERY & LIVELIHOODS PROGRAM (ERLP) - YEMEN

ANNEX 29

DEVELOPING A SUSTAINABLE GROWTH STRATEGY & OPERATIONAL PLAN

March 2021

Prepared for the United States Agency for International Development, USAID Order # 72027920M00001

USAID/Yemen - Economic Recovery & Livelihoods Program (ERLP)

The Pragma Corporation, 116 East Broad Street, Falls Church, VA 22046

BACKGROUND

Gulf Hospital, founded in 2014, is one of the leading hospitals located in Taiz. It provides modern comprehensive and integrated medical services, including obstetrics, gynecology, general surgery, pediatrics, emergency, and ambulance services.

CHALLENGES

The hospital has engaged in a project to increase its capacity, attract more patients, and acquire the latest medical devices in therapeutic technology and equipment, thereby enabling it to hire additional, highly qualified doctors, nurses, and administrators. However, Gulf Hospital has been facing many organizational development challenges, and its expansion plan lacked a sound strategy and operational plan for sustainable business growth. Also missing was a training and coaching program for staff to keep pace with the latest medical developments and improve service delivery operations.

PROGRAM ACTIVITIES

To support Gulf Hospital in overcoming the operational challenges, ERLP and the Hospital jointly designed a technical collaboration to develop and implement a growth-focused operational strategy. The new strategy will focus on reorganizing internal operations and optimizing workflows to align overlapping functions better and maximize patient care capabilities. The results are expected to increase capacity while retaining quality and timely services and to create 22 new jobs by the end of August 2021.

The first activity involves a diagnostic analysis of the hospital's current organizational standing. Based on surveys of hospital staff and patients, the ERLP expert conducted a SWOT analysis identifying points of strength and weaknesses within the hospital's internal environment and potential opportunities and threats presented by the external environment. The second activity includes developing and implementing a time-framed operational plan, based on the findings of the assessments, designed according to targeted quality management standards, and created in collaboration with a designated hospital team.

METHODOLOGY

To maximize the amount of information gathered in a cost and time-effective manner, ERLP surveyed 120 hospital patients, visitors, doctors, and other hospital staff. A random sampling method was employed to ensure that the results would represent factors such as gender, age, and income and thus generalizable to the wider population. The survey included a wide range of questions touching on issues such as the reliability and range of services offered, service quality, equipment, communications, responsiveness to patients, work procedures, wait times, security, confidentiality, physical facilities, hospital location, comfort, and cleanliness. The data were analyzed using statistical methods to assess each element of the SWOT analysis and ensure it was grounded in reality.

This report presents the findings of the SWOT analysis. Subsequent reports will describe the operational plan, including revised workflow charts, department structures and procedures, and the time-framed action plan for its effective implementation. A comprehensive final report will follow, elaborating on the progress achieved through the intervention, including workshops and training sessions with hospital staff.

SWOT ANALYSIS FINDINGS

INTERNAL ENVIRONMENT ANALYSIS	
STRENGTH	**WEAKNESSES**
18 medical departments, encompassing various medical specialties and integrated infrastructure	The lack of an updated strategic and marketing plan
New departments unavailable in other hospitals (e.g., newborn infant incubators, neonatal infant care unit, shock wave lithotripsy)	Poor institutional structure: for example, internal administrative regulations and organizational policies/procedures need improvement
Modern medical equipment	Poor institutional and visual identity, which creates confusion for the clients
Efficient accounting system through which the full documentary credit cycle procedures are performed	Low wages not commensurate with the cost of living due to the inability to increase revenues
Qualified staff	Lack of a mechanism for escorts to stay with the sick, causing congestion and hindering work
The continuous presence of the management team on-site in the hospital premises during official working hours	Poor training and continuous education opportunities for hospital staff
Desire and willingness of the management team and staff to improve the services	Lack of motivation, absence of stimulating activities and events, and no encouragement for creativity
Needs taken into account for separate women's sections (inpatient, outpatient clinics, obstetrics, and all the gynecology departments) to ensure privacy	Insufficient staff members, lowering service quality
EXTERNAL ENVIRONMENT ANALYSIS	
OPPORTUNITIES	**CHALLENGES**
Hospital's good reputation	Unstable economy and collapse of the Yemeni riyal
Weak competitors operating in the private health sector	Deteriorating security situation.
The poor reputation of medical care in public hospitals prompts patients to seek better treatment elsewhere	Difficulty obtaining medical devices due to blockade and port closures
Availability of qualified medical staff to provide medical services	Lack of medical engineers specialized in the maintenance of some of the available medical equipment
Road closures limit travel between cities, so people seek care locally	
A large number of commercial and industrial companies are located near the hospital	

The evaluation phase is fundamental to designing and implementing an effective operational plan for ensuring Gulf Hospital's successful growth and expansion. The design and implementation of that plan will be elaborated on in the next report.

ECONOMIC RECOVERY & LIVELIHOODS PROGRAM (ERLP) - YEMEN

ANNEX 30

ACCESS TO FINANCE – PARTNER FINANCIAL INSTITUIONS

March 2021

Prepared for the United States Agency for International Development, USAID Order # 72027920M00001

USAID/Yemen - Economic Recovery & Livelihoods Program (ERLP)

The Pragma Corporation, 116 East Broad Street, Falls Church, VA 22046

YEMEN COMMERCIAL BANK (YCB)

This quarter, the A2F team developed a new SME lending strategy, transferred SME lending know-how and best practices, and structured a new unit within YCB dedicated exclusively to SME lending. The strategy was enthusiastically embraced by YCB senior management, and the new SME unit has been established. Moreover, YCB's CEO instructed the bank's senior management team to expedite staff recruitment, supporting the newly created unit. The unit's creation and staffing were subsequently published on social media pages and in leading local newspapers.

Following the establishment of the YCB's SMEs unit, the ERLP A2F team initiated a training program to build the unit's SME lending capacity. The 9-day program covered key SME lending methodologies and included an introductory session on SME risk management. The A2F team also delivered training on the use of Pragma's signature CAP model. YCB's senior leadership team has fully adopted ERLP-endorsed SME loan products and has since applied them and Pragma's CAP model to bank credit operations across the country.

Additionally, the A2F team has been working closely with YCB SME unit staff to review new loan applications to help ensure that new loan applications are processed in compliance with newly adopted credit policies and procedures and the CAP model. YCB outreach during this pilot phase has facilitated 34 new SME loans totaling $900,806.Next include integrating ERLP SME financing tools, and credit approval processes within the bank's IT system and continued OJT for YCB loan officers.

INTERNATIONAL BANK OF YEMEN (IBY)

Even though the IBY is Yemen'slargest commercial bank in terms of assets, its credit history over the last five years has been spotty. For the most part, its principal investments have been in government treasury bills. It was not until recently that new leadership has sought to expand its lending operations into new sectors to diversify its portfolio and reduce its exposure.

Within this context, ERLP is helping to transform the bank into an important lender to Yemen's SME sector. This quarter, the ERLP/A2F team assisted the bank in establishing a specialized SME unit spearheaded by its CEO. The team also introduced new financial tools needed to support effective SME lending and has provided comprehensive training sessions on SME lending best practices, credit risk management, and Pragma's CAP model. At the CEO's request, staff training was expanded to over 35 trainees from various bank departments/branches to, in his words, "change the prevailing culture."

ERLP support has included SME essential SME lending manual and procedures, the structure and principal functions of its new SME unit(including position descriptions), and formulation of credit operations that will guide the implementation of the bank's new diversification strategy.

AL- ITTHAD MICROFINANCE PROGRAM

This quarter, the A2F team initiated a partnership with Al-Ittihad Microfinance Program, an MFI based in Aden, focusing on agricultural lending. Al-Ittihad Microfinance Program currently provides loans for crop production but lacks advanced products targeting Yemen's underserved agribusiness sector. The A2F team is developing new financing products that will help it expand agricultural lending, streamlining workflow, and identifying value chains in the agriculture sector of greatest interest to the organization.

This quarter's new product is Bai Salam finance–a Sharia-compliant vehicle between suppliers, small farmers, and agribusiness wholesalers. Bai Salam finance will enable Al-Ittihad Microfinance Program to expand its geographic coverage into rural areas of the country and link small farmers directly to a wider array of domestic markets.

This quarter, the team also conducted and implemented a 3day training program for Al-Ittihad staff on agriculture finance best practice and risk management. ERLP support to date has generated $500,000 in new SME loans.

The next steps include helping the organization develop solutions addressing agricultural lending constraints and targeting new segments within the agribusiness value chain.

AL AMAL BANK

Al Amal Bank is one of Yemen's largest MFIs, with a vibrant network of 18 branches operating across the country. The bank plans to develop its commercial lending function. Over the last four years, the bank largely facilitated remittances for donor relief programs. This quarter, ERLP/A2F advisors worked intensely with the bank to restart and amplify its moribund commercial lending operations. The A2F team introduced the bank to new trade finance and factoring and invoice financing products. During an initial pilot phase, Al Amal Bank will target medical, pharmaceutical, food, and beverage suppliers. A key next step planned is to start implementing an E-invoice system.

This quarter, the A2F team conducted a 3-day training on Pragma's CAP model to assess loan applications, manage risk, analyze a client's creditworthiness, evaluate collaterals and calculate PD, LGD, and EAD Pragma's CAP model will help expand the bank's loan portfolio, encourage greater SME lending, and identify irregularities in its current credit review processes hampering efficient lending.

Al Amal Bank issued $380,000 in new loans using nee financial tools developed with ERLP support this quarter. The next steps include integrating CAP with the bank's MIS system and expanding invoice financing bank-wide.

AL TADHAMON MICROFINANCE FOUNDATION

This quarter, the ERLP/A2F team worked proactively with Al Tadhamon Microfinance Foundation to design and develop new tools to manage cash and liquidity more effectively. Liquidity and access to credit are common problems in Yemen, exacerbated by relentless conflict and the COVID-19 pandemic.

Of particular note in the team's development of a new deposit product to mobilize businesses and retail funds for SME lending purposes. Over the past two months, the A2F team has been working closely with both credit and IT staff to design and develop the new saving module. The team also provided the foundation with an Excel-based treasury management tool for managing liquidity—a critical constraint to developing the aforementioned savings product. Additionally, the team assisted the bank in identifying technological solutions to deposit collections to overcome the high administration costs. The saving product is now fully in the pilot testing phase. The team also CAP Model training to 12 risk officers and branch managers. CAP the training will be followed by OJT at the branch level following its integration I with the bank's MIS.

ERLP support has enabled Al Tadhamon Microfinance Foundation to open new branches in Abyan and Almahrah governorates and issue new loans totaling $300,000 using newly acquired financial tools.

USAID
FROM THE AMERICAN PEOPLE

Doaa Omar Al-Habashi speaking at the ERLP training closing ceremony. Photo: ERLP Team

MATCHING SKILLS TO DEMAND TRANSFORMS OPPORTUNITIES FOR YOUNG YEMENI JOB SEEKERS

"The YCBP Youth Capacity Building Program was a lifeline. It guided me out of the maze of uncertainty that I was living in and led me through the skills and experiences that I needed to get a great job opportunity." – Doaa Omar al-Habashi

For Doaa Omar Al-Habashi, the end of September 2020 was an era marked by great excitement. As a newly minted graduate from Hadramout University for Sciences and Technology, she celebrated with pride the achievement of her completed bachelor's degree in English Translation and Literature. However, mixed with the elation was an equal measure of apprehension. "I worried my efforts would prove to be in vain," she explains. "I had only a blurred vision of where to go next to look for a job or gain more skills. I wondered if I would end up just adding to the ranks of the unemployed."

Thanks to her participation in the youth capacity-building activities of USAID's Economic Growth and Livelihoods Program (ERLP), however, Ms. Al-Habashi is not only gainfully employed but also solidly launched onto the path of a rewarding professional career. With skills honed for work in Yemen's growing humanitarian relief sector, she now holds a position that is fulfilling a role and focus well beyond her expectations. "I am practicing an occupation in the field of my dreams," she says proudly. "On my office desk is my nameplate, with my title, Coordinator of Partnerships and International Cooperation."

Nearly a quarter of young Yemenis, ages 15-24, are unemployed, with women twice as likely as their male counterparts to struggle in the job market. The effects can fan frustration and disenfranchisement among youths, which may lead to political and social unrest. At the same time, employers complain that they cannot find qualified candidates for the job openings that they do have, citing a mismatch between the skills they see and the ones they need. The problem points to training approaches that have not adjusted to contemporary employment demands and fail to equip young job seekers with the tools they require to transition successfully into the labor market.

In response, ERLP's Workforce Development specialists apply a demand-driven strategy, which tailors job training to the requirements of the growth-oriented business sectors that are leading new job creation. The trainings incorporate skills building in required technical capabilities and soft skills, such as good communications or adaptability, that define an effective employee.

The ERLP team targets industries that are on the rise, report skills shortages, and are most likely to offer sustainable employment opportunities based on labor market trends. In Hadramout, the team reached out to representatives from the expanding humanitarian aid sector in the region, who identified a widespread need for project officers and project managers within their organizations. To fully ascertain the specific skill sets that were required to fill these positions effectively, ERLP partnered with the Hadramout Foundation for Human Development and its Alumni Club to conduct interviews and focus group discussions with recruiters from the local humanitarian organizations.

The ERLP experts then took that feedback and incorporated it into the design of a tailored and intensive 25-day workforce development training. There were 25 participants, selected in collaboration with the Hadramout Foundation and its Alumni, based on their motivation, area of specialty, English proficiency, and communication and interpersonal skills.

The trainings introduced the theoretical and methodological frameworks of humanitarian action and social needs assessment, then focused on the practical day-to-day skills involved in project management, including such aspects as proposal writing and monitoring/evaluation. Sessions also were devoted to critical employment skills, such as teamwork, motivation, and time management. Finally, participants were taken through key job-hunting skills training, where they practiced resume writing, effective communications strategies, and interview techniques.

Following the training sessions, the ERLP team organized a career fair in Mukalla, including all the trainees and recruiters from 10 humanitarian organizations. Ms. Al-Habashi, who says she would have been satisfied simply to be interviewed, walked away with two employment offers. She accepted a position as a proposal writer, which led to the funding for her current project and position. Of the experience, she says, "I told myself, yesterday, I was a scared, distracted graduate, and now here I am in the labor market negotiating with big-name organizations."

Nearly 70 percent of people in Yemen are under age 30, and they are the drivers of hope for their country – for its economic growth and for a sustainable exit strategy from reliance on foreign aid. In working to expand job growth and employment options for young Yemenis, ERLP is furthering USAID's commitment to the youth of Yemen, to their expanded opportunities and social inclusion, and towards a more stable, secure future for all Yemenis.

USAID's Economic Recovery and Livelihoods program (ERLP) addresses critical economic stabilization challenges in Yemen. At the macroeconomic level, it works with public and private institutions to restore economic stability, enhance fiscal management, and increase international trade flows. At the microeconomic level, ERLP strengthens private sector performance and competitiveness—creating jobs, raising incomes, and improving livelihoods.

Photo: ERLP Livelihoods Team

SHARPENING WOMEN'S COOKING & ENTREPRENEUR SKILLS

A RECIPE FOR SUCCESS IN YEMEN

"The training has not only helped my business but also shaped my personality. I was a secluded and shy person who didn't know anything beyond the perimeter of my house and family. Now, I socialize with new people and discover a new thing every day about myself, my community, and the world. I believe in myself and know I have the potentials and capacity to realize my dream—to expand my business."

—Ebtisam Al Baras, Owner, A Sprinkle of Sugar Catering

Ten years ago, Ebtisam Al Baras never would have imagined herself as a successful entrepreneur. Following the dictates of strict social conventions, her responsibilities as a wife and mother defined her life and rarely took her beyond the enclave of the family home. With the war, however, everything changed. Her husband lost his employment as a road engineer, and the family faced serious struggles to make ends meet. For the first time, Mrs. Al Baras found herself searching for ways to contribute to her family's livelihood. Prompted by members of her tight-knit community, who appreciated the fine taste of her cookies and cakes, Mrs. Al Baras launched a small business selling baked items from her kitchen to her close neighbors and relatives. She called her company, A Sprinkle of Sugar.

Initially, Mrs. Al Baras worried that she lacked the basic skills for running a business, and she was reluctant to go against social norms that discourage women's workforce participation. However, with the support of her husband and parents, Mrs. Al Baras agreed to take part in a USAID-funded initiative that could cultivate both the cooking techniques and the practical entrepreneurial skills she needed to turn her blossoming small business into a successful enterprise.

In December 2020, Mrs. Al Baras was invited as part of a group of 60 women from coastal communities in Hadramout Governorate to take part in a Seafood Recipes and Entrepreneurship training session conducted by USAID's Economic Recovery and Livelihoods Program (ERLP). ERLP works in partnership with the Yemen-based Selah Foundation, which has a wide reach within local communities to engage women with limited mobility and awareness of employment outreach networks and opportunities. The training sessions are part of a broader ERLP initiative directed at building women's capacity to run sustainable private businesses in growth-oriented sectors – generating better incomes and new jobs.

During the training sessions, the participants were encouraged to experiment with different seafood recipes, tapping into the rich supply of fish and shellfish available locally in their coastal communities. They explored both classic and non-traditional recipes, and they were introduced to professional cooking and prepping techniques. The trainers emphasized maintaining high-quality standards and presenting their products in a professional and appealing way. They also introduced the participants to basic marketing concepts and strategies for extending their market linkages to a wider source of buyers.

Inspired by the recipe development portion of the training, Mrs. Al Baras decided to expand her product line to include savory selections, incorporating popular seafood dishes. The ERLP training also featured entrepreneurial skills-building components, which Mrs. Al-Baras applied to develop a comprehensive business implementation plan for A Sprinkle of Sugar. The plan lays out a system for allocating resources accurately, estimating future profits, and managing Mrs. Al Baras' time and budget.

In addition, Mrs. Al Baras applied her newly acquired market linkage skills to widen her client base significantly. Indeed, business is booming at A Sprinkle of Sugar, which now is featured in local schools and markets, and often requested to cater for wedding and birthday parties. Moreover, Mrs. Al Baras has established new contracts with the local nursing college, the Wa'ei Foundation, and several other organizations, further solidifying her company's reputation and sustainability.

Today, a Sprinkle of Sugar has become a full-fledged family business. Mrs. Al Baras' husband, their three daughters, and their son have all joined the effort, pitching in to keep up with the cooking, the packaging, and the deliveries for their newly thriving enterprise. For Mrs. Al Baras, the role of a successful businesswoman is not only bringing new hope and a better livelihood for her family, but it is also expanding her personal horizons and sense of self.

"Becoming an entrepreneur and a business owner for me is an adventure, an adventure where I discovered myself!" she concludes.

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UNLOCKING THE TREASURE TROVE OF YEMENI COFFEE

"Any business or trade in the world depends on a set of rules and standards. Coffee is no exception. If Yemenis learn those expectations and keep up with the taste trends, we can get fair prices and elevate the coffee sector to create new export and employment opportunities." — Abdullatif Al Jaradi, Certified Coffee Quality Grader

Coffee lovers around the world can appreciate the smell of freshly ground and roasted coffee, along with the pleasure of the first sip of dark, warm brew. For expert tasters, however, the first mouthful of coffee is a far more complex experience. Known as "cuppers," professional tasters will carefully slurp a spoonful of coffee and run it across the tongue to identify the distinctive notes of flavor and body, using terms such as full-bodied, fruity, or exotic undertones. Among international buyers, their opinion can make or break a coffee's reputation—relegating it to the ranks of an ordinary brand or elevating it to the coveted top position of a highly prized and priced gourmet variety.

Among professional tasters, Yemeni coffee stands out as being among the best in the world for its flavors, sweetness, mouthfeel, and aftertaste. In foreign markets, it can retail for $60 or more per pound. However, the high reputation of Yemen's coffee has suffered from inconsistencies in quality in recent years. USAID's Economic Recovery and Livelihoods Program (ERLP) is working with coffee farmers and traders in Yemen to revitalize the country's coffee market and rebuild its potential as a valuable export product. Working across the full value chain, the program is fostering greater productivity from farmers' plots, improved systems and practices to ensure quality, and better branding and packaging to bring out the crop's unique qualities. The program's market linkage experts also are establishing new connections and contracts with foreign buyers to put Yemeni coffee back on the international map and reap more favorable prices for producers and sellers.

Since December 2020, ERLP has been gathering hundreds of coffee farmers from different districts in Taiz Governorate to demonstrate the techniques and requirements of coffee tasting and to help them understand the critical elements that determine its value in high-end markets. The sessions are the first of their kind in Yemen, and they are led by one of the few people in the country to be certified as a Coffee Quality Grader by the Coffee Quality Institute, Mr. Abdullatif Al Jaradi.

Mr. Jaradi introduces session participants to the quality standards employed by international buyers, who rate coffee beans on a graded scale of 1-5. The highest marks are reserved for the most flawless and distinguished beans, and only the top two grades, "specialty" and "premium," are selected by international buyers to be featured in gourmet shops, cafés, or coffee houses. Mr. Jaradi describes to the participants how the harvesting of coffee cherries —picking them by hand and only when they have achieved the bright red color of ripeness —along with how they are handled and stored post-harvest affects their quality. "The farmers need to understand the ways we can determine if this coffee has been efficiently processed or not and if the grower took care of the cultivation and harvesting details," says Mr. Jaradi.

So that participants can compare the differences in taste and quality for themselves, Mr. Jaradi takes them through a cupping demonstration using four varieties of beans. They roast, hand grind, and brew the beans, sampling them from the small tasting cups that give the art of coffee tasting its name. Mr. Jaradi also introduces participants to the Coffee Tasters' Flavor Wheel, used by cuppers worldwide to describe different flavor elements (e.g., fruitiness, sourness, spiciness, sweetness), and how components such as the coffee's body, aroma, or level of acidity are taken into account to evaluate its grade and merits.

To ensure that high-grade Yemeni coffee does make it into international markets, ERLP's market linkage experts are identifying potential foreign buyers to expand the pipeline of sales opportunities. Since September 2020, the team has connected 300 coffee farmers in Taiz to new buyers. The team facilitated a sales agreement between a New York-based specialty coffee importer and local coffee processor Mokha Story worth nearly $70,000 for more than 3,000 kg of specialty coffee beans. ERLP also helped secure a $75,000 deal for 10,000 kg of Yemeni coffee with Mokha Story Jeddah, a large trader/retailer of high-quality Arabic coffee in Saudi Arabia. Both contracts will be renewed if the quality of the first shipment proves its worth. In addition, companies in Germany and South Korea have confirmed their interest in purchasing coffee from ERLP partner farmers based on green coffee samples.

There is a popular song in Yemen that says, "Yemeni coffee, oh pearl, oh treasure above the tree. Whoever grows you will never be poor or suffer humiliation." For smallholder farmers in Yemen, coffee has traditionally been regarded as a crop that could be stored, then sold at the price offered by the local buyer when money from short-term crops has run dry. With ERLP, coffee growers are now discovering and literally developing a taste for its potential high value, not just as a treasured beverage but also as a golden opportunity to lift up their livelihoods and usher in a brighter future.

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Following ERLP's goat-fattening regime, animals are plumper, more valuable, and ready for market in half the time it takes using traditional methods. Photo: ERLP Team

FATTENING GOATS, & THE POCKETBOOKS, OF WOMEN LIVESTOCK KEEPERS

"At the beginning, I was in doubt that I would get so much return so quickly." —Ms. Jameelah Mahfoodh Bash'hab, Livestock Keeper, Sayo'un District, Hadramout Governorate

In a livestock market in Sayo'un District, ten goats dash around a dusty pen. Bleating energetically, the animals nuzzle with affection against the dark folds of their mistress's balto — the long, loose flowing black garment that Yemeni women wear when they go out in public. Their keeper, Jameelah Mahfoodh Bash'hab, shows off her goats with pride. Thanks to the intensive feeding regimen and improved animal husbandry practices she has learned with USAID's Economic Recovery and Livelihoods Program (ERLP), Mrs. Bash'hab's goats are plump and healthy, bringing her faster and better returns than ever before. Results are enabling her to secure an improved livelihood for her family and the money to invest in a growing goat-fattening business.

Livestock-keeping is women's work in Yemen. Since only a tiny fraction of the country's land (less than 3 percent) is suitable for growing crops, it is also an essential source of income and nutrition for rural households. Farmers rely on small ruminants, such as goats, because they are well adapted to Yemen's dry and rocky conditions, able to get by on minimal water and grazing.

The animals provide not only a source of milk or meat for farming families but also act as a form of four-legged savings to be cashed in during times of need.

Mrs. Bash'hab is the sole breadwinner for her large family, as her husband's heart condition prevents him from working. Although their two eldest daughters are married, four more children remain at home pursuing their studies. Livestock-keeping is Mrs. Bash'hab's main source of income, along with the money she earns occasionally working as a day laborer.

Prior to the ERLP training, Mrs. Bash'hab used traditional methods to raise her animals. She would feed them a maintenance diet for 12 months or so until they reached a weight of about 20 kg when she could take them to market to be sold. Mrs. Bash'hab did not provide the goats with any supplemental nutrition or preventative health treatments, occasionally losing some to disease or other conditions.

Following the training, Mrs. Bash'hab purchased ten three-month-old goats and put them on the intensive feeding regimen demonstrated by the program, using locally available fodder. In accordance with ERLP guidelines, she also had her animals dipped and vaccinated to protect them from common parasites and diseases, such as *peste des petits ruminants* (PRR), which is rampant and potentially fatal.

The results initially took Mrs. Bash'hab by surprise. "In just three months, my goats had gained as much weight as they did in six months using our traditional feeding practices," she explains. The animals presented a consistently healthy weight, condition, and appearance, marking the whole herd as more appealing and valuable. Moreover, because they were younger and more tender than goats fed using traditional methods, Ms. Bash'hab's animals were in high demand. As a result, she was able to sell them for double the amount she could earn previously.

Discounting the costs of buying and caring for her goats, Mrs. Bash'hab calculated that she made a profit of 40 percent off her first group of 10 goats. With her earnings, Mrs. Bash'hab was able to pay off her outstanding debts, provide for her family, and expand her goat-fattening business. Moving forward, she anticipates increasing her annual income several times over, thanks to the multiplier effect of being able to produce higher-value animals in half the time as before. "I expect that the new skills and experience I have gained from this training will help me provide better food for my family, ensure that my children complete their education, and improve and grow my business," says Mrs. Bash'hab.

ERLP prioritizes outreach to rural women, tapping into the widespread unmet demand for opportunities to advance their activities and benefit their livelihoods. Through targeted interventions, the program is ensuring that gender equity promotion not only contributes to but actually serves as a key driver of economic recovery—within individual households and across Yemen more broadly.

USAID's Economic Recovery and Livelihoods program (ERLP) addresses critical economic stabilization challenges in Yemen. At the macroeconomic level, it works with public and private institutions to restore economic stability, enhance fiscal management, and increase international trade flows. At the microeconomic level, ERLP strengthens private sector performance and competitiveness—creating jobs, raising incomes, and improving livelihoods.