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MODERN COOKING FOR HEALTHY FORESTS IN MALAWI

ANNUAL WORK PLAN, FISCAL YEAR 2021

September 2020

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ACRONYMS AND ABBREVIATIONS

ACRE	Access to Clean and Renewable Energy
AE	Alternative (Cooking) Energy
AEJ	Association of Environmental Journalists
AgDiv	Agricultural Diversification Activity
AMELP	Activity Monitoring, Evaluation, and Learning Plan
AWP	Annual Work Plan
CDCS	Country Development Cooperation Strategy
CEPA	Centre for Environmental Policy and Advocacy
CFR	Code of Federal Regulations
CGP	Contracts, Grants, and Procurement
CIU	Crime Investigation Unit
CLA	Collaborating, Learning, and Adapting
CMR	Consumer Market Research
CoP	Community of Practice
COP	Chief of Party
COVID-19	Coronavirus Disease 2019
CSMBC	Communications Social Marketing and Behavior Change
DCCS	Director for Cross-Cutting Services
DCOP	Deputy Chief of Party
DFO	District Forestry Officer
DMS	Data Management System
DO	Development Objective
DoEA	Department of Energy Affairs
DoF	Department of Forestry
DPP	Directorate of Public Prosecution
DSL-IP	Dryland Sustainable Landscapes-Impact Program

EMMP	Environmental Management and Mitigation Plan
FAO	United Nations Food and Agriculture Organization
FCDO	Foreign, Commonwealth, and Development Office
FCM	Forest Co-Management
FE	Fuel Efficient
FFE	Forest-Friendly Enterprise
FI	Financial Institution
FLR	Forest Landscape Restoration
FMP	Forest Management Plan
FREL	Forest Reference Emission Level
FY	Fiscal Year
GEF	Global Environment Facility
GHG	Greenhouse Gas
GIS	Geographic Information System
GIZ	*Deutsche Gesellschaft für Internationale Zusammenarbeit GmbH*
GoM	Government of Malawi
GUC	Grants under Contract
IEE	Initial Environmental Examination
IR	Intermediate Result
KAP	Knowledge, Attitudes, Practices
LEDS	Low-Emission Development Strategies
LGAP	Local Governance Accountability and Performance
LOA	Life of Activity
LPG	Liquefied Petroleum Gas
LWT	Lilongwe Wildlife Trust
M&E	Monitoring and Evaluation
MCHF	Modern Cooking for Healthy Forests in Malawi

MEL	Monitoring, Evaluation, and Learning
MFI	Microfinance Institution
MITC	Malawi Investment and Trade Center
MPCC	Malawi Parliamentary Conservation Caucus
MPS	Malawi Police Service
MRV	Monitoring, Reporting, and Verification
NCS	National Charcoal Strategy
NCSC	National Cookstove Steering Committee
NEP	National Energy Policy
NFI	National Forest Inventory
NFLRS	National Forest Landscape Restoration Strategy
NFMS	National Forest Monitoring System
NGO	Nongovernmental Organization
NMU	National Monitoring Unit
NPC	National Planning Commission
PBG	Performance-Based Grant
PEA	Political Economy Analysis
PERFORM	USAID's Protecting Ecosystems and Restoring Forests in Malawi Activity
PSE	Private Sector Engagement
RBG	Results-Based Grant
REDD+	Reducing Emissions from Deforestation and Forest Degradation
REFRESH	Restoring Fisheries for Sustainable Livelihoods in Lake Malawi Activity
REL	Reference Emissions Level
SAEP	Southern Africa Energy Program
SFM	Sustainable Forest Management
SMBC	Social and Media Behavior Change
SOP	Standard Operating Procedure

UNDP	United Nations Development Programme
USAID	United States Agency for International Development
USG	United States Government
USGS	United States Geological Survey
VFA	Village Forest Area
VNRMC	Village Natural Resource Management Committee
WAG	Wildlife Action Group
WI	Winrock International
WISDOM	Woodfuel Integrated Supply/Demand Overview Mapping
WRI	World Resources Institute

1.0 EXECUTIVE SUMMARY

1.1 CONTRACT PERIOD

The contractual period of performance for the USAID and UK Aid co-funded Modern Cooking for Healthy Forests Activity (MCHF) began on October 1, 2019, and will end on/around September 30, 2024. This second Annual Work Plan covers Fiscal Year 2021 (FY2021), spanning October 1, 2020, to September 30, 2021.

1.2 GOALS AND OBJECTIVES

The Activity goal and corresponding objectives are listed below:

- **Activity Goal:** Promote sustainable forest management of selected landscapes and promote sustainable energy options in Malawi to sustainably maintain forest cover and reduce land-based emissions:
  - **Objective 1:** Alternative (cooking) energy sources and fuel-efficient cooking technologies adopted to reduce unsustainable wood fuel demand
  - **Objective 2:** Local delivery of forestry services and sustainable use of forestry resources in targeted areas improved
  - **Objective 3:** Regulatory and enforcement framework to support sustainable wood fuel production and use strengthened
  - **Objective 4:** Government of Malawi's (GoM) implementation capacity of low emissions development in REDD+ and/or other land use increased
  - **Objective 5:** Interventions leveraged with other USAID and development partner resources

1.3 DESCRIPTION OF MAJOR EXPECTED OUTCOMES AT THE END OF THE FISCAL YEAR

At the end of FY2021, MCHF will have:

1. Implemented its market systems approach to promote adoption of alternative cooking energy sources and efficient cooking technologies that reduce unsustainable wood fuel demand. This includes efforts to build consumer demand and to support the private sector, working with the GoM, to increase supply. Specific outcomes will include:
   a. Completion and dissemination of the urban cooking energy market information package, and the results of the urban cooking energy consumer market research and baseline survey, to inform and encourage investment in the urban cooking energy sector.
   b. Design, launch, and signature of grant agreements with the first tranche of entrepreneurs under the Malawi Clean Cooking Performance-Based Grant Fund.
   c. Identification and promotion of the most commercially viable alternative cooking energies and fuel-efficient cooking technologies.

d. Support for targeted consumer testing of alternative cooking energies and fuel-efficient cooking technologies, coupled with communications and outreach as part of a broader social marketing and behavior change communications campaign.

e. Support for entrepreneurs to manage and scale their clean cooking businesses.

f. Completion of the charcoal political economy analysis and use of results to inform the design and implementation of MCHF activities.

2. Laid the foundation for improved forest governance and management in targeted reserves, and enhanced forest-friendly enterprises in targeted landscapes. Specific outcomes will include:

   a. Support for the GoM to complete the forest inventory baseline for each forest reserve.

   b. Support for the GoM to complete the deforestation estimation baseline for each landscape.

   c. Support for national government and local government partners to develop forest landscape restoration action plans for all MCHF focal districts.

   d. Support for development and implementation of forest management plans and forest management agreements within select forest reserves.

   e. Identification and support for development of forest-friendly enterprises within targeted value chains.

3. Strengthened and operationalized the regulatory and enforcement framework for the forestry sector. Specific outcomes will include:

   a. Support for government to develop and adopt priority regulations, including Charcoal Regulations.

   b. Establishment of the baseline for forest crime convictions within MCHF landscapes.

   c. Dissemination of information on the amended Forestry Act, regulations, and guidelines to raise awareness and increase transparency within MCHF landscapes and nationally.

   d. Development and implementation of a training curriculum to improve capacity for regulation and enforcement in the forestry sector.

   e. Development and dissemination of forest crime sentencing guidelines and training of selected members of the judiciary in their use to inform adjudication.

   f. Design and implementation of a targeted advocacy campaign to inform high-level policy- and decision-makers and raising of the sector's profile.

4. Strengthened capacity to utilize systems, tools, and technologies to manage and monitor forest landscapes. Specific outcomes will include:

   a. Establishment, equipping, and launch of a functional forest and landscape restoration monitoring unit within the Department of Forestry (DoF).

   b. Completion of annual national forest inventory data collection, including additional sampling outside of forest reserves.

c. Establishment and institutionalization of a functional data management system within the DoF to support forest management and monitoring.

1.4 DISCUSSION ON INTEGRATION

MCHF embraces and works to operationalize USAID/Malawi's new Country Development Cooperation Strategy, 2020–2025. The team's approach embraces broad partnerships; is selective in reviewing, prioritizing, and investing in "best bet" interventions; and supports development of better approaches to address the complex development context in which MCHF operates—at both the national and landscape levels. The Activity will work with and leverage the expertise and resources of other USAID activities, development partners, the GoM, and the private sector to expand the scale and enhance the sustainability of USAID and Foreign, Commonwealth, and Development Office investments through MCHF. This includes integration with other USAID activities (e.g., the Feed the Future Agricultural Diversification, Restoring Fisheries for Sustainable Livelihoods in Lake Malawi, and Local Governance Accountability and Performance activities), nationally led efforts (e.g., the National Planning Commission and MwAPATA), other donor-funded programs (e.g., the Global Environment Facility-7 Sustainable Landscapes Impact Program and the United Nations Development Programme-funded Access to Clean and Renewable Energy Project), and directly with the private sector (including the Investment Support Facility).

2.0 INTRODUCTION

The Malawi Modern Cooking for Healthy Forests Activity (MCHF) is a five-year activity funded by the United States Agency for International Development (USAID) and United Kingdom (UK) Foreign, Commonwealth, and Development Organization (FCDO) and implemented by Tetra Tech in association with five core subcontractors: the Centre for Environmental Policy and Advocacy (CEPA), the Lilongwe Wildlife Trust (LWT), mHub, Winrock International (WI), and the World Resources Institute (WRI).

2.1 BACKGROUND

The main threats to Malawi's forests include unsustainable harvesting due to over-reliance on wood fuels to meet energy needs (charcoal and firewood for cooking, fish smoking, and brick and tobacco curing); use of timber for construction, agriculture, and settlement expansion in forested areas; and harmful bushfires. More than 96 percent of households rely on wood fuels as their primary cooking and heating fuel, and more than 75 percent of urban households now use charcoal (up from 42 percent in 2011). Charcoal is currently the single most significant driver of forest loss in Malawi. Within Malawi's development context, charcoal and firewood will continue to be significant sources of cooking and heating energy for the foreseeable future—in fact, reliance on wood fuels is expected to increase further with population growth and urbanization.

It was projected that national demand for charcoal and firewood exceeded sustainable supply in/around 2019. The lack of income-generating opportunities in rural areas is the primary cause for urbanization in Malawi. Although a major source of employment and energy, charcoal is often illegally produced in protected forest reserves, contributes to widespread corruption, and is smuggled from neighboring countries. Malawi needs to implement innovative solutions that balance citizens' energy needs and proper management and utilization of forestry resources.

The MCHF design promotes sustainable forest management in Malawi in select landscapes and promotes sustainable energy options in select urban demand centers to maintain forest cover and reduce land-based emissions. By increasing the demand for alternative and efficient energy options and technologies and the supply of sustainable wood fuels from well-managed forest resources, MCHF will help Malawi reduce unsustainable tree cutting in both public and customary forests, improve forest cover, and conserve associated watersheds.

The Activity builds on the strong foundation laid by USAID's Protecting Ecosystems and Restoring Forests in Malawi Activity (PERFORM), which supported effective governance and forest management processes, built Malawi's REDD+ readiness capacity, and promoted low-emissions land use opportunities. MCHF applies a landscape approach that encompasses interventions across multiple geographic scales and land use types, including urban and peri-urban areas, forest reserves, plantations, customary land, and smallholder farms, to address wood fuel supply and demand dynamics holistically. The activity also builds system-level resilience through an integrated land use management framework that seeks to integrate policies across sectors in order to harmonize development and conservation objectives.

The MCHF strategy (Figure 1) will reduce unsustainable wood fuel demand, increase sustainable wood fuel supply, and strengthen Malawi's business and regulatory enabling environment by:

1. **Implementing a landscape approach** that addresses wood fuel supply and demand and reduces underlying drivers of forest cover loss;

2. **Developing inclusive and sustainable market systems across alternative energy (AE), sustainable charcoal, and forestry value chains** by engaging a wide range of actors within each value chain, identifying leverage points that overcome market constraints, and facilitating market-based solutions that utilize local systems and resources;

3. **Engaging the private sector and mobilizing financing, investment, and additional resources** that mobilize and increase investments for the alternative fuels, fuel-efficient (FE) technology, and improved forest governance and forest land restoration;

4. **Building on and advancing key Government of Malawi (GoM) policies and strategies,** particularly the Malawi Growth and Development Strategy III, Malawi 2020 Vision Document, National Charcoal Strategy (NCS), National Energy Policy (NEP), National Forestry Policy, Forestry Act, National Cookstoves Programme Roadmap, National Forest Landscape Restoration Strategy (NFLRS), National Resilience Strategy, and Malawi Renewable Energy Strategy; and

5. **Strengthening local capacity for self-reliance and sustainability** by prioritizing local partners, working with and through GoM institutions, implementing facilitative market system approaches, and supporting human and institutional capacity development.

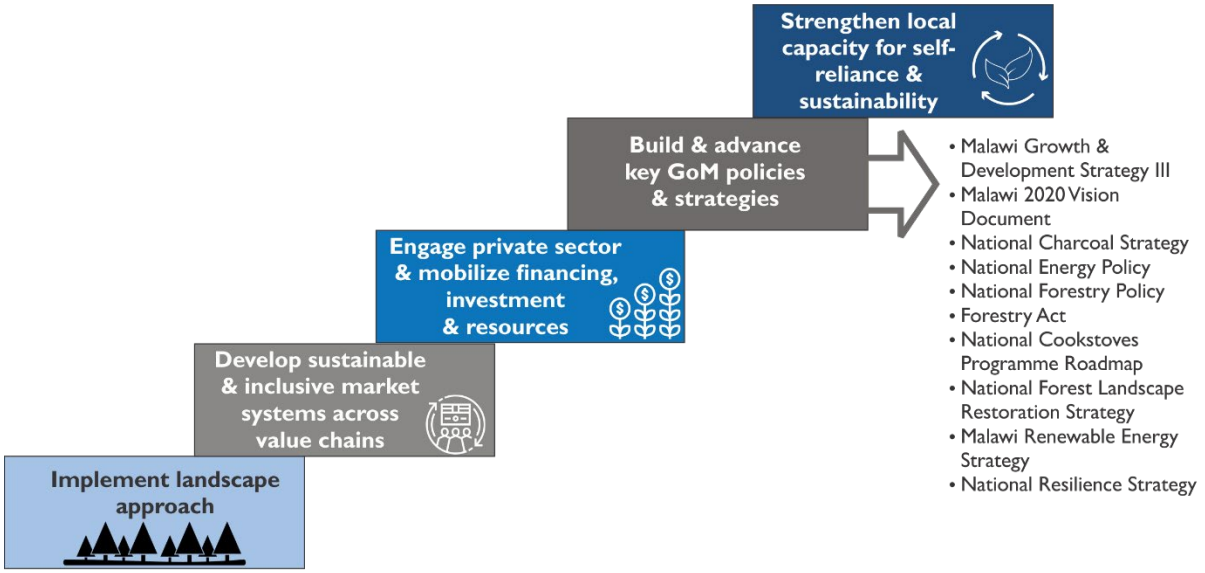


FIGURE 1. MCHF STRATEGY

2.2 ACTIVITY STRUCTURE

MCHF's Objective 1 takes a market systems approach to scale up demand for FE cooking technologies and AE sources and catalyze widespread adoption. MCHF's market systems approach addresses three principal elements—supply, demand, and the enabling environment. Building on the liquefied petroleum gas (LPG) and improved charcoal cookstove market briefs developed under PERFORM, MCHF addresses the root barriers for limited adoption; identifies and engages the wide range of actors in the cookstove and alternative fuel value chains; and changes the awareness, incentives, and capacity of these actors. Through tailored social and media behavior change (SMBC)

Box 1. MCHF will Prioritize Two Main Strategies to Achieve Objective 1 Results

- Increase adoption of improved charcoal cookstoves by urban households as ***the most immediate way*** to address forest cover loss in Malawi.
- LPG as ***the best available and most promising*** alternative to charcoal in the medium term.

strategies and targeted capacity building of female entrepreneurs, MCHF fosters greater involvement of women within these value chains to drive adoption and build inclusivity. Objective 1 interventions directly support key GoM policies and strategies, including the NEP, NCS, and Malawi Renewable Energy Strategy.

The focus of Objective 2 is to increase wood fuel supply through improved forest governance and enhancing natural resource-based livelihoods. MCHF builds on and expands PERFORM's successful forest governance model, which formalized the role of local institutions (including District Councils, traditional leaders, and Village Natural Resource Management Committees [VNRMCs]) in legally recognized forest co-management arrangements. MCHF also scales up forest landscape restoration (FLR) adoption in targeted forest reserves and adjacent areas—village forest areas (VFAs), customary land, government and private plantations, woodlots, etc.—through technical assistance, awareness raising, improved market incentives, and private sector investment. MCHF applies a market systems approach that identifies promising natural resource-based value chains, creates market linkages, strengthens enterprise development, and mobilizes private sector investment across larger landscapes.

MCHF Objective 3 focuses on improving the regulatory framework for wood fuels and strengthening law enforcement capacity to address forestry-related crime, which are essential to build a more sustainable forestry sector—specifically, a more sustainable charcoal value chain in Malawi. Under Objective 3, MCHF improves the enabling environment for the forestry sector by 1) strengthening the regulatory framework for charcoal, 2) improving capacity to enforce laws on forestry-related crime including illegal charcoal, and 3) improving public awareness and advocacy on charcoal and forestry laws and regulations. Activity partner LWT builds on their experience combating wildlife crime to establish similar activities in the forest sector of Malawi.

Under Objective 4, MCHF supports the GoM to implement and institutionalize key systems, tools, and technologies that provide the requisite information base for improved forest monitoring, support REDD+ readiness and FLR efforts, and inform Objective 2 implementation within targeted forest reserves. Objective 4 builds on the leadership and foundation established by PERFORM, which worked closely with GoM to move past the piloting phase of the National Forest Monitoring System (NFMS) and reach all major milestones of the 2015 NFMS Roadmap: 1) the land monitoring system, 2) the field-based forest inventory, 3) the reference emissions level (REL), and 4) the national greenhouse gas (GHG) inventory. This included a fully functional GHG inventory system; development of the REDD+ REL for deforestation, degradation, and forest enhancements; and with the Department of Forestry (DoF), steps to define methodologies, undertake locally led data collection, and produce results to the United Nations Framework Convention on Climate Change standards. PERFORM's WISDOM fuel wood modeling exercise supported the REL, but also produced the first comprehensive review of wood fuel supply and demand imbalance. In addition, PERFORM designed and supported the DoF to lead the first National Forest Inventory (NFI) in Malawi, using a cost-effective approach of integrating past site-based inventories with new fieldwork. MCHF expands on these efforts to further strengthen GoM capacity to improve the quality, management, and application of forest data and information at national, subnational, and field levels.

Objective 5 is cross-cutting, supporting the first four objectives. Through this objective, MCHF operationalizes integration through the Mission's 3C approach that focuses on co-location of USAID interventions, coordination with development partners, and collaboration between USAID, GoM, development partners, the private sector, and civil society to foster and strengthen linkages to improve results. MCHF implements a collaborating, learning, and adapting (CLA) approach that facilitates co-location, coordination, and collaboration at national, landscape, and site-based levels to

maximize MCHF and USAID development results and mobilizes public and private sector financing and investment for sustainable landscapes.

2.3 ACTIVITY GEOGRAPHY

Tetra Tech implements MCHF interventions in select areas (urban areas and rural landscapes) within Malawi. Table 1 presents target geographies (districts, urban areas, and the selected forest reserves and plantations) for MCHF interventions.

TABLE 1. MCHF GEOGRAPHIC SELECTION

LANDSCAPE	GEOGRAPHIC SELECTION	DISTRICTS
Central	**Urban Area:** Lilongwe **Forest Reserves:** Dedza-Salima Escarpment Forest Reserve, Dzalanyama Forest Reserve (including Dzalanyama and Katete Plantations), Mua-Livulezi Forest Reserve, and Thuma Forest Reserve	• Lilongwe • Salima • Dedza
Northern	**Urban Area:** Mzuzu **Forest Reserves:** Bunganya Forest Reserve, Kaning'ina Forest Reserve, Perekezi Forest Reserve, and Viphya Plantation	• Mzimba • Nkhata Bay
Southern	**Urban Areas:** Blantyre and Zomba	• Blantyre • Zomba

2.4 ACTIVITY DEVELOPMENT HYPOTHESIS AND CONCEPTUAL FRAMEWORK

The MCHF development hypothesis (Box 2) describes the causality between MCHF objectives and the Activity's overall goal.

Box 2. MCHF Development Hypothesis

IF the adoption of alternative energy sources and fuel efficient cooking technologies is scaled up (Objective 1); forest governance and sustainable use of forest products are improved (Objective 2); GoM capacity for improved forest monitoring and low emissions development is enhanced (Objective 3); wood fuel regulation and enforcement are strengthened (Objective 4); and interventions and resources are leveraged with USAID, development partners, and the private sector (Objective 5);

THEN forest cover will be sustainably maintained, and land based emissions will be reduced.

The MCHF conceptual framework (Figure 2) builds on and depicts this development hypothesis and maps MCHF objectives to five building blocks to achieve a reduction in unsustainable wood fuel demand, increase forest cover, and reduce land-based emissions:

- **Building Block 1: Reduce unsustainable wood fuel demand.** MCHF reduces wood fuel demand in key urban demand centers and forest reserves through a market systems approach that scales up adoption of AE sources and FE cooking technologies. This will be achieved by: 1) creating consumer demand for these products; 2) increasing their supply through enterprise development, private sector engagement, and mobilized investment; and 3) increasing production and improving market penetration of sustainable charcoal and alternative biomass energy.

- **Building Block 2: Increase sustainable wood fuel supply.** MCHF increases wood fuel supply through improved forest governance and management in targeted forest reserves/plantations and adjacent areas (e.g., VFAs, other customary land, and woodlots). MCHF also extends its market systems approach to support forest-based livelihoods by upgrading promising value chains, creating market-based incentives, and catalyzing private sector investment.

- **Building Block 3: Improve the enabling environment.** MCHF strengthens wood fuel regulations and law enforcement by adapting successful models from Malawi's wildlife sector that will, in turn, support market incentives to reduce wood fuel demand (Building Block 1), increase sustainable wood fuel supply (Building Block 2), and leverage private sector investment.

- **Building Block 4: Strengthen information systems for decision-making.** Building on PERFORM's successful partnership with the DoF, MCHF further strengthens GoM capacity to utilize data, systems, and tools that improve forest monitoring and provide information for informed decision-making to reduce wood fuel demand (Building Block 1) and increase wood fuel supply (Building Block 2).

- **Building Block 5: Collaborating, learning, and adapting.** This building block cuts across and integrates the other four, helping to leverage interventions and resources from other USAID initiatives, development partners, and the private sector (Objective 5). At the same time, MCHF learns from interventions, adapts to changing circumstances, and pursues flexible implementation.

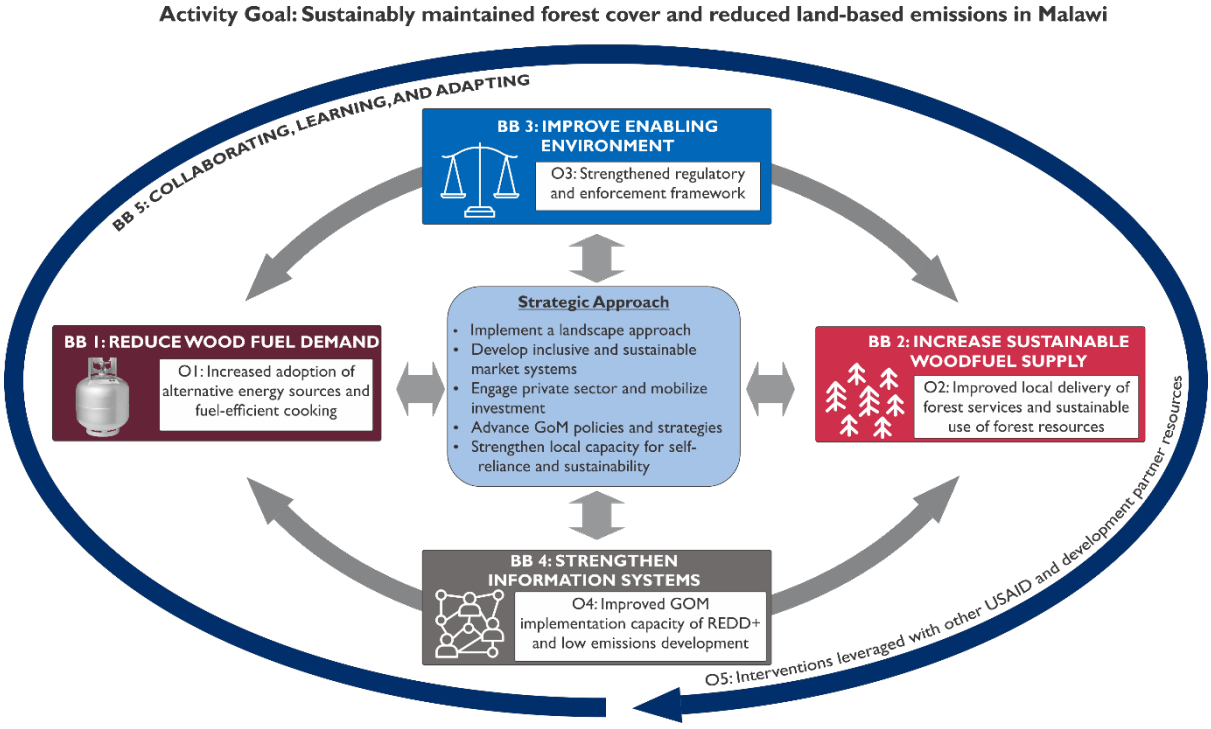


FIGURE 2. MCHF CONCEPTUAL FRAMEWORK

2.5 ACTIVITY RESULTS FRAMEWORK AND INTEGRATION WITH THE USAID COUNTRY DEVELOPMENT COOPERATION STRATEGY RESULTS FRAMEWORK

The MCHF Results Framework defines 13 Intermediate Results (IRs) and illustrates how these link to the five objectives, the activity goal, and the USAID/Malawi Country Development Cooperation Strategy (CDCS) Results Framework.

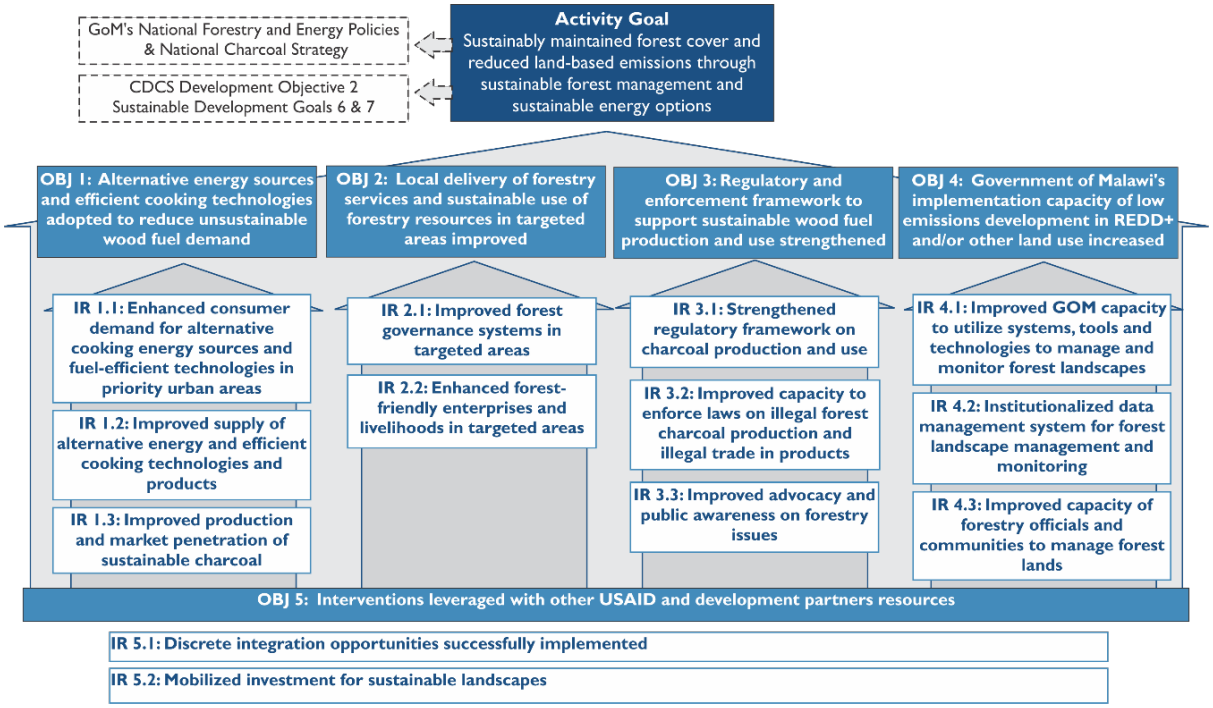


FIGURE 3. MCHF RESULTS FRAMEWORK

2.6 KEY OPERATING ASSUMPTIONS

Through the development of the MCHF life of activity (LOA) Performance Work Statement; Fiscal Year (FY) 2020 Annual Work Plan (AWP); Activity Monitoring, Evaluation, and Learning Plan (AMELP); and this FY2021 AWP, MCHF has identified the key assumptions and risks with the greatest potential to impact MCHF implementation and achievement of results. These are summarized as follows:

- The success of Objective 1 is premised on the performance of a viable market systems approach. This assumes the macroeconomic performance does not deteriorate significantly. Additionally, the sub-focus on sustainable charcoal assumes that USAID will amend the Sustainable Livelihoods Initial Environmental Examination (IEE) to allow work on sustainable charcoal (pending since January 2020) and subsequently will approve a revised MCHF Environmental Mitigation and Monitoring Plan (EMMP).

- The success of Objectives 2 and 4 requires consistent and meaningful commitment from the DoF. This includes a commitment to increasing staffing levels, both at the district level (the national-level DoF staffing vacancy rate exceeds 50 percent and is much higher at the sub-district/forestry assistant level) and national level (specifically for the National Monitoring Unit [NMU]). Also required is a commitment to allocating financial resources to support implementation of key activities, including but not limited to the NFI and forest/FLR monitoring.

- Objective 3 assumes maintaining sustained political will and commitment to address illegal and unsustainable charcoal production, transportation, and marketing from multiple GoM ministries/departments/services, at various scales.

- Objective 5 targets for integration activities and leverage are considerable, and MCHF has proposed to work with a wide range of partners to achieve and meet them.

Presently, the most urgent risk to MCHF implementation, results, and sustained impact is the ongoing COVID-19 pandemic, which began to affect Malawi, and MCHF implementation, in March 2020. The pandemic has limited mobility, engagement, and technical delivery. Travel restrictions stemming from the global pandemic forced MCHF to postpone planned short-term assignments scheduled since March and significantly curtailed implementation of field activities under Objectives 1 through 4. To the extent possible, MCHF has factored known and reasonably expected impacts of the ongoing COVID-19 pandemic into the development of the FY2021 AWP.

Beyond the COVID-19 pandemic, donor commitment to MCHF focal areas and private sector interest in the Malawian market are tied to Malawi's continued stability and security. In addition, MCHF implementation and delivery of results may be influenced by weather/climatic factors well beyond the control of MCHF (as was the case with the El Niño-related drought in 2015/2016). The inability to predict with precision future extreme weather and climate-related shocks presents a degree of uncertainty that may impact activity results and require programming adjustments.

3.0 ACTIVITY MANAGEMENT AND ADMINISTRATION

3.1 IMPLEMENTATION TEAM

MCHF's implementation team is staffed with personnel with the complementary technical and managerial skills needed to implement programmatic and operational requirements of the activity effectively. Additionally, MCHF receives substantial expert technical support from Tetra Tech home office specialists and subcontractors. The MCHF organizational structure (see Appendix B) reflects this approach, while ensuring clear responsibility and oversight is vested in Tetra Tech's field team for the successful execution of the Activity goals and objectives.

Chief of Party (COP) Mr. Ramzy Kanaan leads MCHF implementation with full technical oversight and responsibility for the Activity; he also ensures integration of results and leads Objective 5. Mr. Kanaan maintains direct oversight of the Lilongwe-based MCHF head office team. Deputy Chief of Party (DCOP) Mr. Blessings Mwale supports the COP to provide leadership, supervision, and direction. The DCOP oversees site-based interventions and coordinates implementation across geographies. The Director of Cross-Cutting Services (DCCS), Mr. Don Cuizon, is responsible for supervising project administration and finance, including local subcontracts and grants. Forestry Specialist Mr. Wezzie Chisenga leads Objective 2 and is responsible for implementing interventions that address local delivery of forest services and promote sustainable use of forest resources. Regulatory and Enforcement Specialist Ms. Yolanda Ng'oma leads Objective 3 and is responsible for implementing regulatory and campaign activities focused on supporting the GoM to develop wood fuel regulations that ensure commitment and citizen ownership. Mr. Mike Chirwa, the REDD+ and Low Emissions Development Strategies (LEDS) Specialist, leads Objective 4 and is responsible for supporting government to collect forest and landscape monitoring data systematically and use this data to inform decision-making. MEL Specialist Ms. Evelyn Mvalo manages all MCHF MEL processes, including on-site activity monitoring (collecting both qualitative and quantitative data) and facilitation of learning events and activity learning. Alternative Energy and Fuel-Efficient Cooking Technology Specialist Mr. Admore Chiumia leads the planning and implementation of Objective 1 interventions that promote the adoption of AE and FE cooking technologies. Ongoing is the recruitment for one additional key personnel position, Private Sector Engagement (PSE) Specialist to support Objectives 1, 2, and 4. The Tetra Tech home office is also ultimately responsible for contractual compliance and is the main point of contact for the USAID/Malawi Contracting Officer.

3.2 MANAGEMENT

MCHF's organizational structure ensures clear lines of communication and authority between Tetra Tech and its partners. All partners report to COP Ramzy Kanaan, who is responsible for ensuring they share a clear implementation vision. Mr. Kanaan maintains regular contact with partner leadership based in the U.S. and Malawi. He also directly manages LWT's Regulatory and Enforcement Specialist and WI's REDD+ and LEDS Specialist, both of whom serve as objective leads. All long-term partner staff are embedded in MCHF offices or in the offices of GoM counterparts. Oversight of partner long- and short-term technical assistance is the responsibility of the COP; however, he delegates to the DCOP and technical implementation to objective leads as appropriate. The DCOP is responsible for Objective 2 field office staff. The DCCS is responsible for project administration, finance, and contracts/grants personnel.

4.0 MONITORING, EVALUATION, AND LEARNING

4.1 THE MCHF AMELP

Tetra Tech developed the MCHF AMELP through an iterative process, including incorporating known and reasonably expected impacts of the ongoing COVID-19 pandemic. The team submitted the final AMELP on June 24, and USAID approved it on July 3, 2020. Reporting on Activity indicators began in the third quarter of FY2020.

The MCHF AMELP is centered on USAID's CLA framework, with a goal of promoting continual learning and adaptive management to achieve desired targets and impacts throughout the five-year LOA. The approach ensures that CLA is intentional and assists the Activity and its collaborating partners to improve effectiveness of their development efforts by:

- Generating knowledge, evidence, and analysis to improve development outcomes;
- Measuring achievements, identifying shortcomings, and exercising flexibility for adaptive management; and
- Leveraging interventions and resources.

4.2 CLA, COMMUNITIES OF PRACTICE, AND LEARNING QUESTIONS

To make CLA more intentional throughout the LOA and to help MCHF and collaborating partners improve the effectiveness of development efforts, the team has developed a number of learning questions for each objective (see Table 2). In addition, MCHF works through a number of Communities of Practice (CoPs) to share experiences, evidence, and learning and will continue to do so in FY2021. Wherever possible, MCHF embeds CoPs in existing bodies such as the National Cookstove Steering Committee (NCSC; see Table 3). Each CoP serves as an opportunity to review and further develop the learning questions developed in FY2020. As indicated in earlier sections, MCHF acknowledges the impact of the ongoing COVID-19 pandemic on implementation of interventions but also welcomes the circumstances as a learning opportunity for future implementation of Activity interventions where social distancing and limitations in numbers for public gatherings may possibly become the norm.

TABLE 2. LEARNING QUESTIONS (PRESENTED BY MCHF OBJECTIVE)

OBJECTIVE	LEARNING QUESTIONS
1	• Which SMBC strategies are most effective at increasing adoption of FE cooking technologies and alternative fuels? • To what extent has adoption of FE cooking technologies and alternative fuels impacted charcoal consumption? • Which enterprise financing models are most successful for leveraging private sector investment for the FE technology and alternative fuel sector? • Which consumer financing models are most successful in scaling up adoption? • What is the key driver for adoption of sustainable charcoal?
2	• Which incentives support improved sustainable forest management and scaling up FLR? • To what extent are MCHF interventions (e.g., demand-side interventions, improved forest-friendly enterprise [FFE] value chains, and improved enforcement) reducing illegal charcoal production? • To what extent do FFEs incentivize improved forest management? • How effective are the different forest management regimes used by the GoM to manage target Forest Reserves?

TABLE 2. LEARNING QUESTIONS (PRESENTED BY MCHF OBJECTIVE)

OBJECTIVE	LEARNING QUESTIONS
3	• Which strategies are most effective at disrupting illegality in the charcoal value chain? • At which point in the charcoal value chain do enforcement actions have the greatest impact? • Which advocacy and awareness strategies can most successfully reduce forest-related crimes? • Which advocacy and awareness strategies can most successfully increase use of sustainable charcoal? • How effective are the media and Malawi Parliamentary Conservation Caucus strategies in facilitating approval of the regulatory framework?
4	• To what extent are data, information, and tools improving GoM decision-making on forest management? • To what extent is the GoM reflecting its commitment to sustaining data monitoring and management using its own resources?

TABLE 3. COMMUNITIES OF PRACTICE

COP	POSSIBLE LEAD, MEMBERSHIP, FOCAL AREAS
Fuel-Efficient Charcoal Stoves	***Lead:*** NCSC Working Group 2 ***Membership:*** Stove producers, stove promoters/vendors, Department of Energy Affairs (DoEA), development partners, academia, relevant nongovernmental organizations (NGOs), Association of Environmental Journalists (AEJ) ***Focal Areas:*** • Sharing of MCHF/other assessments; consumer research; knowledge, attitude, and practice (KAP) surveys; and SMBC materials • Exchange of information and lessons learned on scaling up production/sale/adoption of FE charcoal stoves • Testing of approaches on delivery/payment options (MCHF could test different options in different cities.) • Information exchange and impact assessment of different marketing approaches on sale/adoption
Liquefied Petroleum Gas	***Lead:*** NCSC Working Group 3 ***Membership:*** LPG importers and distributors, DoEA, Malawi Energy Regulatory Authority, development partners, academia, relevant NGOs, AEJ, MCHF ***Focal Areas:*** • Sharing of MCHF/other assessments, consumer research, KAP surveys, and SMBC materials • Tariffs • Regulation • Messaging (on safety, cost, etc.) • Supply chain issues • Sharing of research on uptake, willingness to pay, etc.
Sustainable Charcoal Production & Marketing	***Lead:*** Co-led by DoF and DoEA ***Membership:*** Sustainable charcoal license holders and aspiring producers, academic/research institutions, MCHF ***Focal Areas:*** • Tracking of current implementation and collection of data on current production (practices, technologies, volumes produced, volumes sold, markets-buyers, prices, etc.) • DoF licensing process improvements (e.g., creation of "sustainability guidelines" to improve transparency)

TABLE 3. COMMUNITIES OF PRACTICE

COP	POSSIBLE LEAD, MEMBERSHIP, FOCAL AREAS
	• Testing of kiln efficiency, calorific value, burn characteristics, etc. • Kiln efficiency/performance data, tips, exchanges, etc. • Recommendations for upscaling sustainable charcoal production • Labeling, quality control, and market penetration
Forest-Friendly Enterprises	***Lead:*** SEED Malawi (Tione Kaonga) ***Membership:*** DoF, Land Resource and Conservation, DoEA, Malawi Investment and Trade Center (MITC), GIZ Green Innovations, Promoting Entrepreneurship for Sustainable Development (SEED), Wildlife and Environment Society of Malawi and other NGOs, academia, Mzuzu Coffee, HIMACUL, Timber Association, SE4ALL, Zankhalango Association, Yamba, Moringa Miracles Limited, etc. ***Focal Areas:*** • Cataloging/documentation of FFEs in Malawi (products, production groups and sites, value addition, formal-informal marketing, etc.) • Development and sharing of case studies on FFE development, marketing, and scaling • Support for learning exchanges (e.g., enterprise-to-enterprise cross-visits)
Forest Landscape Restoration	***Lead:*** DoF ***Membership:*** DoF, Department of Disaster Management Affairs, Ministry of Local Government and Rural Development, Department of Land Resources and Conservation, Department of Surveys, MITC, United Nations Food and Agriculture Organization (FAO), NGOs, Malawi Chambers of Commerce and Industry ***Focal Areas:*** • Data monitoring assessment: data input, data quality, utility, streamlining indicators • Use of FLR data in landscape planning, implementation, and monitoring to support learning across landscapes in the areas of: – Planning, implementation, and financing – Technical interventions (cross-visits among landscapes, demo sites) • Lessons learned
Chiefs Forum	***Lead:*** Director of Planning and Development ***Membership:*** Traditional leaders, District Commissioners (and other district personnel), DoF, Department of Disaster Management Affairs, Ministry of Local Government and Rural Development, NGOs ***Focal Areas:*** Landscape-level platform focused on leveraging the important role of traditional leaders in communication/information dissemination within targeted landscapes, including on: • Forestry and land use • Forest and landscape restoration • Monitoring, regulation, and enforcement • Learning visits across landscapes
Regulatory and Law Enforcement of Forest Crimes	***Lead:*** DoF, Malawi Police Service (MPS) or Inter-Agency Committee to Combat Wildlife (and Forestry) Crime ***Membership:*** DoEA, MPS, Ministry of Justice, magistrates, traditional leaders, Ministry of Local Government and Rural Development ***Focal Areas:*** • Analysis of bottlenecks for successful prosecutions of forest crimes • Effectiveness of sentencing guidelines as a deterrent • Options for dealing with political interference related to forest crimes

4.3 KEY MEL ACTIVITIES

Below is a brief outline of AMELP-related activities and timelines through FY2021:

- FY2021 AWP finalized (Q1)
- Baseline studies finalized (Q1–Q2)
- MEL input into template for grant agreements developed (Q2–onward)
- MCHF EMMP reviewed and revised, as needed (Q1–onward)
- CoPs established and operating (Q1–onward)
- Initial grantees trained in indicators and data quality (Q2–onward)
- FY2022 AWP developed (Q4)
- AMELP reviewed and updated (Q4)
- Routine data collected (Q1–Q4)
- Pause-and-reflect sessions conducted (Q2 and Q4)

4.4 FINALIZATION OF BASELINES AND ASSESSMENTS

As noted earlier, the COVID-19 pandemic impacted the MCHF implementation schedule through the second half of FY2020. MCHF incorporated known and reasonably anticipated impacts, including revised activity implementation schedules, in the final versions of the Activity's FY2020 AWP and AMELP. This includes the following baseline data collection activities, which are expected to be completed between the first and second quarters of FY2021:

Urban Cooking Energy Consumer Market Research (CMR) and Baseline Survey: Data collection for the urban cooking energy CMR and baseline survey began in late August and is expected to continue through October 2020, with data analysis and reporting completed prior to the end of Q1. The results of the CMR and baseline survey will support MCHF to: 1) better understand current cooking/heating fuel and technology use in each city; 2) understand current expenditures for cooking/heating fuel and technology; 3) identify which consumer segments are best suited to adopt these fuels/technologies; 4) provide insights to support development of effective products and marketing strategies; 5) provide insights to inform development of consumer financing options to contribute to greater uptake; 6) establish disaggregated baseline for the "percent of households in urban areas that have adopted AE sources and/or efficient cooking technologies" (Indicator 6); and 7) establish a baseline for the "percent of sampled target audience reporting exposure to messages on AE sources and FE technologies on radio, TV, electronic platforms, or in print" (Indicator 7). MCHF will disseminate research findings to relevant stakeholders in Q1 and Q2 of FY2021.

Baseline Deforestation Assessment: Between November 2020 and January 2021, MCHF will apply the GoM's approved approach to estimating deforestation as detailed in the 2019 Malawi Forest Reference Emission Level (FREL). This assessment will focus on the Central and Northern Landscapes, with a higher density of point observations than were undertaken in the national effort to produce localized baselines and monitoring datasets of deforestation rates. MCHF will establish

the baseline rate of deforestation by acquiring and analyzing imagery using visual interpretation of canopy cover from roughly 2009–2019/2010–2020 to record the fraction of the forested landscape with deforestation observed. The Activity will use the fraction to extrapolate to the wider landscape the total amount of deforestation incurred annually from 2009–2019/2010–2020. This estimate of historical deforestation over the previous ten years will serve as the baseline for assessing a reduction in deforestation by landscape.

AE/FE Technical and Commercial Viability Assessment: MCHF designed this assessment to be conducted in two phases. The first phase, the technical feasibility assessment, was initially planned to be conducted at an external laboratory/testing center in Q3 of FY2020 but was delayed due to COVID-19 pandemic. MCHF now expects to complete the first phase of the assessment in Malawi in collaboration with the NCSC by the end of January 2021.[1] MCHF will likely repeat this assessment process when additional AE/FE technologies emerge in FY2022 and FY2023. MCHF will complete the second phase, the assessment of commercial viability (e.g., input, production, transportation, and retail costs) for those AE/FE technologies that competed well against the baseline in phase one in Q2 of FY2021.

Rural Cooking Fuel and Technology Rapid Scan and KAP Survey: The purpose of this survey is both to gather baseline data on household use of cooking fuel and technology adjacent to MCHF-supported forest reserves and to collect information on KAPs to inform development of SMBC communications to scale up adoption of FE technologies. This scan and survey will: 1) provide a baseline for the percentage of rural households in/around targeted forest reserves/plantations that use FE (or AE) technologies; 2) establish a baseline for the "percent of sampled target audience reporting exposure to messages on AE sources and FE technologies on radio, TV, electronic platforms, or in print" (Indicator 7); 3) inform the design of SMBC communications; and 4) provide benchmarks against which MCHF will measure the effectiveness of SMBC campaigns. This survey will begin in September 2020, and data collection and analysis will be completed in Q1 of FY2021.

Compilation of Forestry Case Records Survey: MCHF will use secondary data in the form of court records to establish the country-wide baseline conviction rate related to illegal activities in the forestry sector. The baseline determines the average conviction rate during the 2016–2019 period. MCHF will report the percent change over that baseline annually for selected areas. Data will include the number of people arrested for forestry crimes and the number convicted. Conviction data collected will include both the custodial sentence and any fines levied. The collection of this baseline data began remotely/virtually in July 2020 and will be completed in Q1 of FY2021.

[1] Emissions testing is not available in Malawi, so this information cannot be included in the first phase assessment. Instead, late in FY2021 or early in FY2022 MCHF will send the best performing locally produced stoves (resulting from the first phase of testing) to a suitable laboratory/testing facility outside of Malawi to complete the emissions testing.

5.0 WORK PLAN RESULTS AND ACTIVITIES

5.1 OBJECTIVE 1: ALTERNATIVE ENERGY SOURCES AND EFFICIENT COOKING TECHNOLOGIES ADOPTED TO REDUCE UNSUSTAINABLE WOOD FUEL DEMAND

Under Objective 1, MCHF implements a market systems approach to scale up adoption of FE cooking technologies and AE sources. Informed by the 2019 PERFORM *Analysis of Woodfuel Demand, Supply, and Harvesting Sustainability*, MCHF focuses Objective 1 interventions in Lilongwe, Blantyre, Mzuzu, and Zomba. Our approach to this objective will achieve three IRs: 1) enhanced consumer demand for AE sources and improved cookstoves; 2) improved supply of these products and technologies; and 3) improved production and market penetration of sustainable, legal charcoal and alternative biomass energies. MCHF develops, adapts, and supports implementation of catalytic finance and accelerator models that engage the private sector and leverage finance and investment for both demand- and supply-side interventions.

The MCHF Objective 1 approach directly supports the implementation of key GoM policies and strategies, including the NEP, Renewable Energy Strategy, Sustainable Energy for All Action Agenda for Malawi, and strategic actions defined under Pillars 1 and 2 of the NCS. MCHF prioritizes: 1) improved adoption of charcoal cookstoves by urban households as the most immediate way to address forest cover loss in Malawi; 2) LPG as the best available and most promising alternative to urban charcoal use in the medium term; and 3) other site-specific opportunities to decrease demand for unsustainably harvested wood fuels, which are expected to include institutional users of firewood, brick burning, and tobacco curing.

The Objective 1 FY2021 AWP interventions, presented below, build directly on FY2020 interventions and outputs, including:

- Development of the Urban Cooking Energy Market Information Package;
- Design of the MCHF results-based finance grants mechanism;
- Design and initiation of the urban cooking energy CMR and baseline survey;
- Development of an SMBC communications strategy for urban cooking solutions;
- Design and development of social media LPG information and awareness materials; and
- Collaboration with the NCSC, including support for two working groups.

5.1.1 RESULT 1.1: ENHANCED CONSUMER DEMAND FOR ALTERNATIVE COOKING ENERGY SOURCES AND FUEL-EFFICIENT COOKING TECHNOLOGIES AND IN PRIORITY URBAN AREAS

MCHF recognizes that too many cookstove interventions in Malawi (and around the world) are supply driven, neglecting the critical importance of determining consumer preference and market demand to drive adoption. Aligned with the MCHF market systems approach, the team improves understanding of consumer needs, preferences, and willingness/ability to pay and ensures that producers and suppliers are cognizant of those needs when designing and marketing products, distribution models, and consumer financing approaches. MCHF builds on PERFORM's analyses that

identified and documented key factors that influence adoption of FE cooking technologies and the incentives and disincentives for specific, segmented target groups (e.g., urban/rural, male/female).

In FY2021, MCHF's main focus areas for this result are:

- Complete baseline data collection, including the Urban Cooking Energy CMR;
- Develop and roll out information and awareness materials to support the urban cooking transition to AE/FE technologies;
- Conduct commercially viable AE/FE cooking technology consumer testing;
- Develop and implement targeted SMBC communications to drive adoption of urban cooking solutions;
- Continue coordination of NCSC Working Groups 2 and 3;
- Work with partners to build demand for FE and AE, specifically, improved charcoal cookstoves and LPG (and sustainable charcoal, after amendment of the Missions IEE and the MCHF EMMP); and
- Identify and support consumer financing options for FE/AE.

Outputs:

- Completed urban cooking energy CMR and baseline survey.
- Barriers to adoption of FE/AE documented.
- SMBC strategy, with solution-specific messages for prioritized FE/AE, developed and in implementation.
- Consumer financing strategies promoted through financial institutions (FIs), micro-financial institutions (MFIs), and employers.

Key Activities:

Conduct urban cooking energy CMR and baseline survey:

Lead/Partners: *Tetra Tech*

Primary Responsible: *MCHF Alternative Energy and Fuel-Efficient Cooking Technology Specialist (Objective 1 Lead) Mr. Admore Chiumia*

Timeline: *October 2020–September 2021*

- *October–January 2020*

  Data collection for the urban cooking energy CMR and baseline survey began in late August and is expected to continue through October 2020, with data analysis and reporting completed prior to the end of Q1. The results of the CMR and baseline survey will support MCHF to: 1) better understand current cooking/heating fuel and technology use in each city; 2) understand current expenditures for cooking/heating fuel and technology; 3) identify which consumer segments are

best suited to adopt these fuels/technologies; 4) provide insights to support development of effective products and marketing strategies; 5) provide insights to inform development of consumer financing options to contribute to greater uptake; 6) establish disaggregated baseline for the "percent of households in urban areas that have adopted AE sources and/or efficient cooking technologies" (Indicator 6); and 7) establish a baseline for the "percent of sampled target audience reporting exposure to messages on AE sources and FE technologies on radio, TV, electronic platforms, or in print" (Indicator 7).

MCHF will disseminate findings from the CMR and baseline survey to key stakeholders, including the private sector. The findings will help to better focus the design and implementation of results-based finance grants and will inform development and implementation of information and awareness campaigns and targeted SMBC communications to drive consumer demand for urban cooking solutions.

- *January–September 2021*

  MCHF will more broadly disseminate findings from the CMR and baseline survey (coupled with the results of the fuel and stove testing described under IR1.2). The team will develop and translate information, awareness, and SMBC communications content and roll it out. MCHF's intention will be to reach at least 75 percent of urban households and influence at least 30 percent of urban households to cook using AE and/or FE technologies. A subset of this communications work will target policy makers in a focused effort to leverage high-level support in the urban cooking transition to AE and/or FE technologies.

Support targeted consumer testing of commercially viable AE and FE technology products:

Lead: *Tetra Tech*

Primary Responsible: *MCHF Alternative Energy and Fuel-Efficient Cooking Technology Specialist (Objective 1 Lead) Mr. Admore Chiumia*

Timeline: *January 2021–September 2021*

MCHF will support targeted consumer testing of commercially viable AE and FE technology products (identified under IR 1.2). This will provide a practical opportunity for targeted urban households/consumers to experience AE sources and FE cooking technologies in their day-to-day lives. MCHF will couple this with focused communication that enables households piloting AE and FE technologies to share their experiences with one another and then more broadly with their neighbors and the public at large.

MCHF will document in-home consumer testing for further dissemination through social media (e.g., Facebook, Twitter, and WhatsApp) and other platforms, including an SMBC communications pilot. These activities will be linked to field-based learning with key stakeholders including ministers and members of Parliament to raise awareness, increase knowledge, and inform advocacy.

Develop and implement SMBC strategies to drive adoption:

Lead: *Tetra Tech*

Primary Responsible: *MCHF Alternative Energy and Fuel-Efficient Cooking Technology Specialist (Objective 1 Lead) Mr. Admore Chiumia*

Timeline: *October 2020–September 2021*

MCHF will complete the analysis and resulting strategies of its SMBC study in early Q2. This will include the design and implementation of KAP surveys for priority AE/FE products (including improved charcoal cookstoves, LPG, and legal, licensed charcoal), across relevant urban geographies. The results of the KAP surveys will inform development of a stakeholder map for targeted dissemination of SMBC products to promote adoption of each selected technology across MCHF-selected urban geographies. MCHF will conduct SMBC campaigns and provide business planning support to entrepreneurs (to include development of bankable proposals), technical assistance to financial institutions, support to an improved enabling environment, and support for local high-quality manufacture of cooking devices and fuel.

Develop innovative consumer financing strategies:

Lead/Partner: *Tetra Tech*

Primary Responsible: *MCHF Alternative Energy and Fuel-Efficient Cooking Technology Specialist (Objective 1 Lead) Mr. Admore Chiumia*

Timeline: *October 2020–September 2021*

MCHF will use the market information package, the results of the CMR and baseline survey, and other available data to engage FIs, and possibly select MFIs, to raise awareness of the viability of the urban cooking energy sector. To the extent possible, this will build on FIs associated with the Southern Africa Energy Program (SAEP) Kickstarter Program, with the goal of identifying a subset of FIs interested in designing loan packages specifically for the urban cooking energy sector. In the first half of FY2021, MCHF will meet with FIs and select MFIs to help them better understand the potential demand for urban cooking solutions in each of the four cities. The team will assess the institutions' interest in developing financing products for the urban FE/AE sectors and will work with interested FIs/MFIs to identify the best modalities for distribution of FE/AE technologies.

MCHF will also work directly with the private, public, and NGO sectors to promote cost-effective distribution models for specific AE/FE technology products (a form of end-user financing). MCHF will consult with large employers, initially in Lilongwe and Blantyre, to help them better understand the cleaner cooking sectors and the advantages that FE technologies and AE sources present to their employees. Where interest exists, the team will work with employers and entrepreneurs to identify available employer/employee financing options to scale up adoption of FE/AE.

MCHF will also collaborate with the United Nations Development Programme (UNDP)-funded Access to Clean and Renewable Energy (ACRE) Project that will establish an Employer Guaranteed Clean Cooking Fund. Funded at approximately $500,000 over three years, ACRE presents an opportunity to scale up adoption of cleaner cooking solutions across the four urban areas.

5.1.2 RESULT 1.2: IMPROVED SUPPLY OF ALTERNATIVE ENERGY AND EFFICIENT COOKING TECHNOLOGIES AND PRODUCTS

Across the cookstove and alternative fuel value chains, most enterprises in Malawi are at an early stage of development and require considerable business capacity building and capital to reach

commercial viability and scale. To address these challenges, MCHF's supply-side interventions focus on three areas: 1) identifying viable AE and FE technologies; 2) strengthening business skills and capacity of commercially viable AE and efficient cooking enterprises; and 3) mobilizing access to finance and investment to scale enterprise, services, and ultimately AE and FE technology adoption. The Objective 1 Lead and PSE Specialist will work with subcontractors mHub and WI to develop, adapt, and implement innovative approaches to strengthen enterprise development and crowd in private sector finance and investment to improve the supply of AE and efficient cooking technologies in Malawi. An important aspect of this approach will be the design and utilization of results-based financing through results-based grants (RBGs) as part of the larger grants under contract (GUC) program to incentivize scaling of AE and FE technology products within the focal urban charcoal demand centers. Building on the success of the USAID SAEP Kickstarter, MCHF will bundle RBGs with technical assistance and will link grantees to FIs and MFIs where appropriate.

In FY2021 MCHF's main focus areas for this result are:

- Documenting commercially viable AE and FE technology products and delivery models and subsequently publicizing and promoting them;
- Identifying possible early-stage entrepreneurs and selecting businesses for MCHF support (through direct assistance and participation in mHub's Growth Accelerator and from recipients of RBGs);
- Initiating the MCHF GUC program, including the design and award of RBGs and possible matching grants, for entrepreneurs successfully completing the mHub Growth Accelerator; and
- Building capacity of selected entrepreneurs.

Outputs:

- Commercially viable AE and FE technology products defined and promoted.
- Early stage FE/AE entrepreneurs identified and supported by MCHF (e.g., with technical assistance, grant support, access to finance, or a combination).
- FE/AE entrepreneurs have the capacity to manage and scale their business.
- Finance and investments for the FE cooking and alternative cooking energy sectors leveraged.

Key Activities:

Document and publicize commercially viable AEs and FE technology products:

Lead: *Tetra Tech/CEPA*

Primary Responsible: *MCHF Alternative Energy and Fuel-Efficient Cooking Technology Specialist (Objective 1 Lead) Mr. Admore Chiumia*

Timeline: *December 2020–September 2021*

- *December 2020–March 2021*

To ensure that subsequent support is invested soundly, MCHF will identify and test existing charcoal and biomass AEs and FE technology products to determine technical viability (as an alternative to the baseline, illegal charcoal/Jiko stove). For those biomass AE sources and FE technology products found to be technically viable, MCHF will assess financial viability. Any biomass AEs or FE technology products that are found not viable will not receive further MCHF support. MCHF will publicize the viable AEs and FE technology products to potential investors, entrepreneurs, and others to raise awareness. The subset of viable AEs and FE technology products defined will form the focus of support for subsequent interventions under Objective 1, including further direct technical assistance and engagement through the MCHF GUC program or the mHub Growth Accelerator. Note that MCHF had initially planned the technical fuel and stove testing for completion in Q3 of FY2020 at a laboratory outside Malawi (with the capacity for emissions testing), but this was not possible due to COVID-19. In an effort to accelerate implementation of this intervention, MCHF now expects to conduct the initial fuel and stove testing in Malawi with NCSC (GIZ EnDev) between October and November 2020. The team also expects to conduct supplemental testing (including emissions testing) at a qualified laboratory for the most promising fuel and stove options later in FY2021.

- *January–September 2021*

  MCHF will disseminate information on commercially viable AE and FE technology products, including testing/performance results. This will be ongoing through the remainder of the fiscal year and will continue in subsequent years.

Strengthen business skills and capacity of efficient cooking technology and alternative cooking energy enterprises:

Lead/Partner: *Tetra Tech/mHub*

Primary Responsible: *MCHF Alternative Energy and Fuel-Efficient Cooking Technology Specialist (Objective 1 Lead) Mr. Admore Chiumia*

Timeline: *October 2020–September 2021 (first cycle)*

MCHF will provide direct assistance to selected innovative AE/FE entrepreneurs (building on the results of the previous activity). This includes a wide range of potential assistance areas, such as supporting the design and development of improved technologies, supporting development of more user-centered products and services, supporting business planning and financial modelling, improving customer engagement, and refining/developing operational systems that support the enterprises to successfully scale up. In addition to direct assistance, MCHF will bundle the delivery of technical assistance to grantees—through both RBGs and matching grants issued to enterprises selected to participate in mHub's Growth Accelerator Program (see Box 3 in Section 5.2.2).

Mobilize finance and investment for the FE cooking and AE sectors:

Lead: *Tetra Tech*

Primary Responsible: *MCHF PSE Specialist, TBD/Alternative Energy and Fuel-Efficient Cooking Technology Specialist (Objective 1 Lead) Mr. Admore Chiumia*

Timeline: *December 2020–September 2021*

In FY2020, MCHF developed an Urban Cooking Energy Market Information Package to help quantify the market potential for urban cooking solutions and to stimulate entrepreneurial interest. MCHF will also use the package to engage FIs (and possibly select MFIs) to raise awareness of the viability of the urban cooking energy sector. To the extent possible, this will build on the subset of FIs associated with the SAEP Kickstarter Program, with the goal of identifying a subset of FIs interested in designing loan packages for the urban cooking energy sector. MCHF will then link interested RBG awardees to relevant FIs.

More broadly, building on the PERFORM *Assessment of Financial Mechanisms to Promote Cleaner Cooking in Malawi*, MCHF will explore a range of approaches to mobilize finance and investment for the AE and FE technology sectors, which include:

- Increasing awareness of the existing Development Credit Authority loan guarantee mechanism within the AE sector through targeted outreach to AE associations (e.g., NCSC and Renewable Energy Industry Association of Malawi) and entrepreneurs;
- Exploring, with USAID, the interest and appetite for developing portable loan guarantees;
- Utilizing challenge grants to accelerate the development and piloting of new technologies;
- Identifying opportunities to leverage funding windows (e.g., Energy and Environment Partnership or Development Innovation Ventures) to scale up tested/proven concepts (e.g., technologies or distribution models);
- Exploring opportunities to packaging grant and debt support to offer products and services in underserved areas; and
- Assessing the potential of carbon markets, either compliance (i.e., Clean Development Mechanism for efficient charcoal) or voluntary (e.g., Gold Standard for LPG) to incentivize the adoption of the new cooking technology.

In addition, MCHF, independently and through the CoPs, will work to engage policymakers to lobby for tax relief and improvements to the regulatory framework for FE/AE technologies. This includes the removal of all taxes (excise, duty, value-added) on AE and FE to reduce costs to end users and help drive consumer demand.

5.1.3 RESULT 1.3: IMPROVED PRODUCTION AND MARKET PENETRATION OF SUSTAINABLE CHARCOAL

Sustainable charcoal, or charcoal produced from a sustainable source, is the only legal charcoal in Malawi. Scaling up the market for sustainable, legal charcoal requires interventions that address improved charcoal production, sustainable forest management (SFM) and wood fuel supply, and improved regulations and enforcement. Under IR 1.3, MCHF focuses only on activities that will improve sustainable charcoal production and demand, as Objectives 2 and 3 will address SFM and regulations and enforcement, respectively. MCHF's approach under IR 1.3 will focus on three key activities: 1) conducting a political economy analysis (PEA) of the charcoal value chain; 2) improving the efficiency of charcoal production; and 3) improving market penetration of sustainable, legal charcoal.[2]

[2] Note: USAID/Malawi's prevailing Sustainable Landscape IEE included sustainable/green/eco charcoal as a "deferral," so proposed work on sustainable charcoal continues to be pending USAID's amendment of the IEE and, subsequently, USAID's approval of a revised MCHF EMMP.

FY2021 activities will focus on:

- Designing, conducting, and using the results of the PEA to inform activity implementation in Objectives 1, 2, and 3;
- Supporting quick wins to increase sustainable charcoal production; and
- Identifying early-stage sustainable charcoal entrepreneurs.

Outputs:

- PEA completed.
- Potential obstacles, opportunities, incentives, and barriers for interventions that would improve sustainable charcoal production identified.
- Volume of sustainably produced, legal, licensed charcoal increased (implementation on hold, pending USAID's revision to the IEE and MCHF's EMMP).
- Private sector and other enterprises engaged in legal, licensed charcoal with capacity to use efficient technologies in production of charcoal (implementation on hold, pending revision to the IEE and MCHF's EMMP).

Key Activities:

Conduct PEA of charcoal value chain:

Lead: *Tetra Tech*

Primary Responsible: *Chief of Party, Mr. Ramzy Kanaan*

Timeline: *Ongoing–April 2021*

MCHF will complete the PEA of Malawi's charcoal value chain (initiated in Q2 of FY2020 and delayed by the COVID-19 pandemic), focused in MCHF urban charcoal demand centers and target landscapes. This PEA will assist MCHF to identify and better understand the actors and existing networks that prevail in Malawi's charcoal sector, assess their interests and influence, and identify potential obstacles, opportunities, and incentives for designing and implementing interventions that improve sustainable charcoal production and reduce illegality. MCHF will subsequently work to address the results of the PEA to increase the effectiveness of activity strategies, tools, and approaches toward meeting high-level outcomes for emissions reduction from deforestation and forest degradation. This PEA will explore the interaction of political and economic processes affecting forest and land use practices, charcoal production, transportation, and marketing in MCHF landscapes and urban centers.

Augment volumes of sustainable charcoal and alternative biomass energy from production forests and non-wood biomass:

Lead: *Tetra Tech*

Primary Responsible: *MCHF Alternative Energy and Fuel-Efficient Cooking Technology Specialist (Objective 1 Lead) Mr. Admore Chiumia*

Timeline: *November 2020–end of the Activity (assumes amendment of the IEE)*

MCHF will support the DoF to map current legal, licensed charcoal producers, documenting technologies, volumes, and end markets. The team will support the DoF to explore options for scaling up legal, licensed charcoal production using improved efficient kilns from wood and non-wood sources (e.g., bamboo and agricultural residues). MCHF will provide targeted technical support to existing sustainable charcoal producers and to aspiring new entrants (found to be viable through Result 1.2). MCHF will support the DoF to develop national guidelines for licensing sustainable charcoal and, through Objective 3, will support development of regulations and other tools that could be streamlined to increase private sector investments in the charcoal value chain.

Improve efficiency of charcoal production:

Lead: *Tetra Tech*

Primary Responsible: *MCHF Alternative Energy and Fuel-Efficient Cooking Technology Specialist (Objective 1 Lead) Mr. Admore Chiumia*

Timeline: *November 2020–end of the Activity (assumes amendment of the IEE)*

MCHF will work with private sector and other actors currently engaged in legal, licensed charcoal production to scale up the adoption of more efficient kilns and/or management systems. The team will provide training and capacity building support to legal producers (e.g., in managing moisture content/drying wood or kiln management practices). Pending the issuance of charcoal licenses, MCHF will assist license holders (e.g., people/enterprises with larger woodlots and plantation concessions) to invest in improved charcoal kilns and will train them in improved kiln management practices. MCHF will also support new entrants to collect data (e.g., input/output/conversion rates), use this to inform development of viable business models, and help attract investors in the charcoal value chain.

Improve market penetration of sustainable, legal charcoal:

Lead: *Tetra Tech*

Primary Responsible: *MCHF Alternative Energy and Fuel-Efficient Cooking Technology Specialist (Objective 1 Lead) Mr. Admore Chiumia*

Timeline: *November 2020–end of the Activity (assumes amendment of the IEE)*

MCHF will develop and disseminate messages to raise urban charcoal consumers' awareness of the cascading risks posed by illegal charcoal production and the benefits of legal, licensed, sustainably produced charcoal. These public awareness efforts will document the scale of current illegal charcoal production and impacts—both inside and downstream from production areas. Concurrent with these efforts and the regulation and enforcement detailed in Objective 3 (IR 3.2), MCHF will support targeted demonstrations that allow individuals to compare licensed charcoal and share their experience with neighbors and more broadly through various media.

MCHF will also document some of these first-hand experiences and disseminate them through various media to reach urban households more broadly. MCHF will also facilitate dissemination through live events where these fuels (and related technologies) can be showcased and information can be shared for wider reporting (e.g., through the Association of Environmental Journalists).

Wherever possible, MCHF will target strategic events and commemorations such as World Energy Day, Forestry Day, Environment Day, and Cleaner Cooking Camp.

5.2 OBJECTIVE 2: LOCAL DELIVERY OF FORESTRY SERVICES AND SUSTAINABLE USE OF FORESTRY RESOURCES IN TARGETED AREAS IMPROVED

Under Objective 2, MCHF will increase wood fuel supply through two mutually reinforcing IRs: 1) improved forest governance systems in targeted forest reserves and adjacent areas; and 2) enhanced natural resource-based livelihoods. In the second quarter of FY2020, MCHF worked with the GoM nd USAID to agree upon the selection of landscapes, forest reserves, and forest plantations for MCHF support. Together, these present the greatest current and future potential to safeguard and increase wood fuel supply to address growing demand. The landscapes and forest reserves/plantations are as follows:

Central Landscape:

- **Districts:** Lilongwe, Salima, Dedza
- **Forest Reserves:** Dedza-Salima Escarpment, Dzalanyama, Mua-Livulezi, Thuma
- **Forest Plantations:** Dzalanyama (including Katete)

Northern Landscape:

- **Districts:** Mzimba, Nkhata Bay
- **Forest Reserves:** Bunganya, Kaning'ina, Perekezi
- **Forest Plantations:** Viphya

While the COVID-19 pandemic most significantly impacted Objective 2, effectively halting the roll-out of planned FY2020 activities into the targeted landscapes and forest reserves, MCHF expects to begin a phased approach to site-based work beginning in September 2020. This includes supporting the DoF to conduct the NFI between September and October 2020, which will be focused in the seven selected forest reserves (to establish biomass baselines) and rolled out more broadly across Malawi in subsequent years.

Activities under Objective 2 build on and expand recent successful experiences transferring management authority for forest reserves from the central government to other bodies—including community-based institutions, NGOs, and the private sector. Central to these developments are governance models that effectively formalize the roles and responsibilities of partner institutions (including District Councils, traditional leaders, VNRMCs, NGOs, and the private sector) in legally recognized agreements (e.g., forest co-management [FCM] arrangements, conservation concessions, and public-private partnerships). These MCHF interventions in gazetted state forest reserves will help to scale up adoption of FLR. In addition, MCHF will scale up FLR adoption outside of targeted forest reserves (e.g., in adjacent areas, including VFAs, customary land, woodlots, and agricultural estates) through improved market incentives, technical assistance, awareness-raising, and increased investment. MCHF will strengthen natural resource-based enterprises by identifying and promoting a subset of the most viable products and services through a demand-driven market systems approach that identifies promising FFEs, creates market linkages, strengthens enterprise development, and mobilizes investment and finance across a larger landscape.

5.2.1 RESULT 2.1: IMPROVED FOREST GOVERNANCE SYSTEMS IN TARGETED AREAS

PERFORM worked with national, district, and local stakeholders to revise Malawi's FCM structure to directly address documented weaknesses of the previous co-management approach. Among significant issues identified through PERFORM's assessments include a deep lack of trust between state, non-state, and co-management partners; inadequate delegation of rights and ill-defined roles and responsibilities for co-management partners; no formal role assigned for traditional authorities; and a lack of transparency and accountability in revenue-sharing schemes. PERFORM worked with DoF, District Councils, and traditional authorities to successfully develop a new co-management model in Ntchisi Forest Reserve and Perekezi Forest Reserve. This model formalized the role for traditional leaders in the co-management structure, creating a tripartite co-management arrangement between the DoF, District Forest Offices, and traditional authorities. The GoM has also successfully trialed other approaches to improve forest management by outsourcing management authority to NGOs (e.g., the Wildlife Action Group [WAG] for Thuma and Dedza-Salima Escarpment Forest Reserves) and to the private sector (e.g., African Parks Limited for Mangochi Forest Reserve). The Forestry Act Amendment Bill, supported by both PERFORM and MCHF, that came into effect in June 2020 embraced and provided a legal framework for these and other outsourced forms of management. Under IR 2.1, MCHF builds on and scales up these approaches, adapting where appropriate to reflect local circumstances and stakeholder preferences. To ensure no leakage, the team complements these activities by scaling up FLR implementation across a wider area within and outside of state forest reserves and plantations, including private plantations, VFAs, customary land, agricultural estates, and smallholder farms.

In FY2021 MCHF will focus on the following major activities:

- Collecting forest baselines (inventory, deforestation estimation, etc.) for each selected forest reserve/landscape against which performance will be monitored;
- Within each landscape, validating restoration opportunities and supporting development of landscape restoration action plans;
- Finalizing and disseminating data and communication materials, including landscape FLR information packs; and
- Developing case studies of successful landscape-level FLR and showcasing these on information-sharing platforms including 100 Landscapes.

Outputs:

- Forest inventory baseline for each forest reserve/forest plantation conducted.
- Deforestation estimation baseline for each landscape conducted.
- Landscape restoration plans (including maps) developed.
- FLR information packs distributed in all focal districts (including to all District Commissioners, District Planning and Development Directors, and traditional leaders).
- 100 Landscapes entries submitted showcasing successful, landscape-level FLR and raising the profile of these efforts and local champions.
- Forest management plans (FMPs) developed.

- Forest co-management agreements/forest plantation agreements/forest management agreements developed.

Key Activities:

Facilitate landscape-level planning with stakeholders:

Lead/Partner: *Tetra Tech*

Primary Responsible: *MCHF Forestry Specialist (Objective 2 Lead) Mr. Wezzie Chisenga*

Timeline: *October 2020–March 2021*

Within each landscape, MCHF will engage key stakeholders to review and validate (or revise as necessary) existing data sets including:

- (GoM) National FLR Assessment data
- (GoM) NFI data
- (PERFORM-developed) wood fuel demand, supply, and sustainability data
- (U.S. Geological Survey [USGS]-developed) land use land cover
- (USGS-developed) trees of farm data

As part of this process, MCHF will support development of landscape restoration matrices and map restoration opportunities and actors for each landscape. The team will then facilitate development of landscape-level restoration plans. Working with stakeholders from the district and sub-district levels (e.g., Area Development and Village Development Committees) as well as with traditional leaders, MCHF will then select and prioritize interventions for direct activity support. MCHF will support counterparts at the district level to build ownership for these landscape restoration plans within the respective Districts Councils and will advocate for inclusion of key restoration activities into district development priorities (and, where possible, into District Development Plans). MCHF will support these councils to leverage and coordinate implementation with other actors in their respective districts.

Implement and scale up landscape FLR plans:

Lead/Partner: *Tetra Tech/WRI*

Primary Responsible: *MCHF Forestry Specialist (Objective 2 Lead) Mr. Wezzie Chisenga*

Timeline: *January 2021–end of the Activity*

MCHF will build capacity for implementation of landscape restoration plans with key stakeholders, including government extension staff (community development assistants, agriculture extension development officers, forestry assistants), chiefs, and communities. A critical step in this process will be equipping officials with key information needed to influence decision-making and supporting implementation and monitoring of FLR, which the DoF is championing. This will include maps, data, and summary communications products. Additionally, MCHF will support targeted districts to explore financing options to support/scale up implementation as discussed during landscape-level

planning. Finances could either come from public resources, such as local government financing (e.g., Local Development Funds or Constituency Development Funds), or directly from the private sector (e.g., the Northern Region Water Board). This will also include opportunities to leverage resources from other donors and to seek new sources of funding and financing, including through WRI's TerraMatch and Land Accelerator. To support learning, MCHF will establish a Restoration CoP within each landscape in Q2 and Q3 of FY2021. This is expected to comprise district staff and relevant academic, NGO, and private sector partners operational within the landscape. Members will share relevant experience and support cross-learning within the landscape.

Conduct site-based forest inventories and landscape-based deforestation estimations:

Lead/Partner: *Tetra Tech/WI*

Primary Responsible: *MCHF Forestry Specialist (Objective 2 Lead), Mr. Wezzie Chisenga/REDD+ and LEDS Specialist (Objective 4 Lead), Mr. Mike Chirwa*

Timeline: *October 2020–January 2021*

MCHF will support the GoM to conduct site-based forest inventories in each targeted forest reserve. These inventories will utilize the GoM-endorsed standard operating procedures (SOPs); in addition to providing baseline biomass (and carbon for the Dedza-Salima Escarpment and Thuma Forest Reserves) data for each of these forest reserves and providing critical data needed to inform subsequent development of FMPs, the inventory data will also be integrated into the GoM's NFI.

Similarly, MCHF will support the GoM to estimate deforestation within selected landscapes. This will build on the methodology developed through PERFORM and endorsed by the GoM in 2019. The resulting deforestation estimations will provide the baseline against which deforestation will be monitored over the LOA, in accordance with the approved AMELP.

Develop FMPs and agreements:

Lead: *Tetra Tech*

Primary Responsible: *MCHF Forestry Specialist (Objective 2 Lead), Mr. Wezzie Chisenga*

Timeline: *December 2020–March 2022*

Building on the process and products from the rapid forest assessment and the forest inventory and deforestation baselines, MCHF will work with the DoF and its selected partners to develop FMPs for selected forest reserves/plantations. The development of FMPs will entail:

- Reviewing, revising, and finalizing the FMP template for forest reserves and, as appropriate, developing an appropriate template for forest plantations;
- Engaging stakeholders to review and clarify the process for developing and finalizing FMPs;
- Drafting, reviewing, and revising FMPs, including the translation of FMPs into local languages, where necessary (e.g., in places where FCM is desired by the GoM); and
- Supporting the approval of FMPs by the DoF.

Where desired by the GoM, MCHF will support development and signing of agreements (FCM agreements, conservation concession, plantation agreements, etc.) to enable implementation of the FMPs once completed. As part of this process, MCHF will support negotiation/discussion between the DoF and other key stakeholders on the proposed agreements and, as part of this, will translate agreements into relevant local languages. Finalized agreements will be signed between the government and other parties (e.g., communities or private actors).

Develop case studies of successful landscape-level FLR and showcase these on information-sharing platforms, including 100 Landscapes:

Lead: *WRI*

Primary responsible: *WRI staff (Aaron Minnick, Will Anderson)*

Timeline: *December 2020–September 2021 (and repeating in FY2022)*

WRI will work with MCHF staff, GoM counterparts, and others to document successful landscape-level FLR efforts in at least one MCHF focal district. The team will collect photos and video of the effort to help document it, with a narrative that explains why, how, and to what end stakeholders are restoring land; who is leading/supporting these efforts; and what the plans are to scale up these efforts. The team will enter information onto the 100 Landscapes online platform. MCHF will communicate the case study through Malawian media and communication channels of the 29-country AFR100 partnership to: 1) raise awareness of better practices; 2) encourage adoption and replication of practices that are working; and 3) leverage complementary investment that can support broader implementation of the priorities defined in the restoration action plans. MCHF will leverage AFR100 information-sharing channels including the AFR100 Annual Partners Meeting, AFR100 website, and AFR100 newsletter.

5.2.2 RESULT 2.2: ENHANCED FOREST-FRIENDLY ENTERPRISES AND LIVELIHOODS IN TARGETED AREAS

Under IR 2.2, MCHF implements a market systems approach that strengthens promising FFEs and value chains in and around targeted forest areas and improves forest and landscape management. The team will prioritize and select FFEs considering key criteria related to their potential to generate positive benefits for forest and landscape management, competitiveness, opportunities for inclusivity (benefiting women and youth), and the business-enabling environment. Value chain analyses will inform targeted interventions and capacity building to improve access to finance, create market linkages, strengthen supply chains, support local entrepreneurs to create value addition, and connect with private sector investors. Through MCHF's partner mHub, the team will design and implement a Growth Accelerator program that identifies, incubates, and accelerates smaller-scale enterprises and entrepreneurs, targeting women and youth. MCHF will also build on and expand WRI's successful Land Accelerator program to identify and grow promising FLR enterprises and match them with prospective financiers. The team will use its GUC program to incentivize performance and crowd in additional financing. MCHF will implement all value chain activities in full accordance with the approved IEE, the MCHF EMMP, and USAID sector guidelines.

In FY2021, MCHF's main activities under this result will focus on:

- Assessing and selecting FFEs and value chains;

- Identifying early-stage forest-friendly entrepreneurs and selecting businesses for support through the mHub Growth Accelerator and the WRI Land Accelerator; and
- Building capacity of selected entrepreneurs.

Output:

- Landscape-specific value chain assessment reports developed.
- Early stage innovative FFEs/entrepreneurs identified.
- FFEs/entrepreneurs with improved capacity to manage and scale the business.
- Finance and investments for the FFEs leveraged.

Key Activities:

Analyze and select forest-friendly value chains in focal landscapes:

Lead/Partner: *Tetra Tech*

Primary Responsible: *MCHF DCOP, Mr. Blessings Mwale*

Timeline: *January 2021–March 2021*

Building on existing information, including the PERFORM *FLR Private Sector Investment Opportunity Report*, and reflecting on the results of recent value chain assessments, MCHF screened potential FFEs in FY2020 based on field visits and available literature. MCHF then developed a scope of work to conduct a focused value chain assessment to identify the most promising FFEs. The value chain assessment will begin in September 2020 and is expected to be completed in January 2021. This assessment will help to: identify key actors and their relationships to one another; define critical gaps (e.g., markets, demand, and access to finance); the potential risks and benefits for improved forest management; and a projection of the extent to which each value chain can create earning/employment opportunities for women, youth, etc.

Strengthen forest-friendly enterprises within selected value chains:

Lead/Partner: *mHub/Tetra Tech/WRI*

Primary Responsible: *MCHF DCOP, Mr. Blessings Mwale*

Timeline: *March–September 2021 (and continuing in subsequent years)*

Building on the recommendations from the forest-friendly value chain assessment, MCHF will assist selected innovative early-stage entrepreneurs in the FFE space with business skills and advisory support. This may include but will not be limited to supporting development of user-centered products, support for designing improved technologies, business planning and financial modelling, customer engagement, research and development, quality control, and operational systems that allow them to successfully scale. Capacity building for early-stage entrepreneurs will be centered on the mHub MCHF Growth Accelerator program (see Box 3), but MCHF will also support ad hoc requests for assistance from promising entrepreneurs.

Strengthen business skills and capacity of FLR enterprises:

Lead/Partner: *mHub/Tetra Tech/WRI*

Primary Responsible: *MCHF DCOP, Mr. Blessings Mwale*

Timeline: *April 2021–March 2022 (first cycle)*

More broadly than the selected forest-friendly value chains, MCHF will also support entrepreneurs in the FLR space who are operational within the MCHF landscapes. This may include the provision of technical and advisory support and/or business development services to selected enterprises. MCHF will deliver capacity building through the mHub MCHF Growth Accelerator Program, but the team will also respond to ad hoc requests for assistance from promising entrepreneurs, especially those with the potential to scale activities more broadly within a selected landscape, or elsewhere in Malawi.

Box 3. The MCHF mHub Growth Accelerator Process (combined for Obj. 1 and Obj. 2)

- Identify innovative, early stage AE/FE and forest friendly entrepreneurs.
- Develop criteria for selection of AE/FE and forest friendly entrepreneurs.
- Conduct a competitive selection process (e.g., call for applications, interviews, selection, and training of semi finalists; business pitch; and final selection process inclusive of due diligence and assessment of capacity needs).
- Provide selected entrepreneurs with hands on training (e.g., business skills and entrepreneurship, financial literacy, marketing skills, intellectual property, product innovation and customer engagement, financial modeling, and investor engagement), mentorship/leadership coaching and facilitation, and access to co financiers.
- Provide sector specific data to inform business planning.
- Develop proven business models.
- Link successful entrepreneurs with matching grants (where feasible), MFIs and FIs, and other sources of finance.
- Track performance (e.g., product sales).
- Monitor investment/finance leveraged.

The roll-out of the mHub MCHF Growth Accelerator program will entail:

- Conducting information dissemination sessions (combined with the AE and FE dissemination sessions) within the selected cities (Blantyre, Lilongwe, Mzuzu, and Zomba) and in the large towns located within MCHF landscapes (e.g., Dedza, Mzimba, Nkhata Bay, and Salima);
- Advertising calls for expressions of interest/proposals; and
- Reviewing/selecting applicants for support through the Growth Accelerator program.

In collaboration with mHub, WRI will adapt its Land Accelerator curriculum to develop a Land Incubator focused on "graduates" of the mHub MCHF Growth Accelerator program and other forest-friendly and FLR enterprises supported by MCHF. The team will develop the curriculum, speaker list, target communications channels, and mentor network between September and

December 2021. The Land Incubator is expected to be hosted in the second quarter of FY2022, in collaboration with mHub. Ideally, the team will select at least one Malawian enterprise from the Land Incubator to participate in WRI's pan-African Land Accelerator. Associated with the Land Incubator, WRI will support development of communications products to raise the profile of participating businesses.

Document and publicize forest-friendly and FLR business models and projects, and support efforts to secure finance through incubators/accelerators and the online TerraMatch platform:

Lead: *WRI/CEPA*

Primary responsible: *MCHF DCOP, Mr. Blessings Mwale (with support from WRI through Meseret Shiferaw and Aaron Minnick)*

Timeline: *April 2021–September 2021 (and again in FY2022)*

Working in close collaboration with partners, WRI will identify Malawian restoration projects that could benefit from crowdfunding and for-profit FFEs that could be attractive for private sector investors. The team will undertake this business and project scoping through several channels, including interviews, a call for applications to the Land Incubator and pan-African Land Accelerator, and a call for applications to submit projects on the TerraMatch platform. Financial "matchmaking" for projects will occur on a rolling basis through the online TerraMatch platform and at annual Land Accelerator events. The businesses and projects will be documented and profiled, including through a digital "LookBook" that is showcased in Malawian media and communication channels, AFR100 information-sharing channels, and the Land Accelerator website. Other platforms that will showcase projects and businesses could include the CEPA online library and possibly the annual Malawi Investment Forum hosted by the Malawi Trade and Investment Commission.

5.3 OBJECTIVE 3: REGULATORY AND ENFORCEMENT FRAMEWORK TO SUPPORT SUSTAINABLE WOOD FUEL PRODUCTION AND USE AND, MORE BROADLY, FOREST MANAGEMENT STRENGTHENED

An improved regulatory framework for wood fuels and strengthened law enforcement capacity to address forestry-related crime are essential to build a more sustainable forestry sector in Malawi—specifically, a more sustainable charcoal value chain. This, in turn, will support other MCHF objectives by providing incentives for investment in SFM, the adoption of improved charcoal production practices, the uptake of improved stoves, and the competitiveness of alternative fuels.

Under Objective 3, MCHF strengthens the enabling environment for sustainable charcoal through three interrelated IRs: 1) strengthening the regulatory framework for charcoal; 2) improving capacity to enforce laws on forestry-related crime, including illegal charcoal; and 3) improving public awareness and advocacy on charcoal and forestry laws and regulations. LWT leads activities under Objective 3, leveraging and adapting their experiences building Malawian capacity for improved regulation and enforcement in the wildlife sector. This strategically leverages LWT's funding from USAID, the U.S. State Department's Bureau for International Narcotics and Law Enforcement Affairs, FCDO, and private sources—ensuring a consistent approach. The MCHF approach implements key actions and recommendations of the NCS for regulating charcoal production (NCS Pillar 5) and strengthening law enforcement (NCS Pillar 4).

5.3.1 RESULT 3.1: STRENGTHENED REGULATORY FRAMEWORK FOR CHARCOAL PRODUCTION AND USE AND, MORE BROADLY, FOREST MANAGEMENT

In FY2020, MCHF supported the passage of the Forestry Act Amendment Bill (developed through support from PERFORM). The amendment, which the Parliament of Malawi adopted in February and the president assented to in June 2020, increases transparency and accountability in the forestry sector, improves charcoal regulation, enhances opportunities for public-private partnerships, and enhances the powers of the DoF. Building directly on this positive development, in the last quarter of FY2020, MCHF initiated a legal review of the Forestry Act to support the DoF to identify and prioritize areas for development of subsidiary legislation (e.g., regulations and guidelines). In FY2021, MCHF will support the GoM to complete the legal review and, subsequently, to develop key regulations and guidelines that support implementation of the amended Forestry Act.

In FY2021, the main activities under this IR will focus on:

- Supporting development of key regulations and guidelines to facilitate implementation of the Forestry Act Amendment Bill; and
- Developing and disseminating information on the Forestry Act Amendment Bill and related legislation to raise public awareness.

Output:

- Legal review of the Forestry Act (and relevant legislation) completed and Gap Analysis Report developed.
- Priority areas for regulation identified.
- Sentencing guidelines developed and disseminated.
- Information of the amended Forestry Act, regulations, and guidelines disseminated broadly within MCHF landscapes to raise awareness of new legal framework.

Key Activities:

Complete legal review of the Forestry Act and relevant legislation:

Lead Partner: *LWT*

Primary Responsible: *MCHF Regulatory and Enforcement Specialist (Objective 3 Lead), Ms. Yolanda Ng'oma*

Timeline: *Ongoing–November 2020*

MCHF will complete the ongoing legal review in early October 2020. The resulting product, the Gap Analysis Report, will identify where ambiguities or conflicts might challenge implementation and enforcement, and will present recommendations to clarify and harmonize legal provisions and policy goals. Over the next two months, MCHF will support the DoF to engage with key stakeholders to review the results and prioritize areas for subsequent support. As part of this process, MCHF and the DoF will engage directly with the Inter-Agency Committee to Combat Wildlife Crime, the Malawi Parliamentary Conservation Caucus (MPCC), and others to solicit input.

Develop and facilitate approval of subsidiary regulations and guidelines:

Lead Partner: *LWT*

Primary Responsible: *MCHF Regulatory and Enforcement Specialist (Objective 3 Lead), Ms. Yolanda Ng'oma*

Timeline: *November 2020–FY2022*

Building on the activities above, MCHF will support development and approval of subsidiary regulations and guidelines that enhance enforcement in the forestry sector. This is expected to include support to the DoF to develop regulations on charcoal (including production, transport, and sale) and agreements (including plantation agreements, FCM agreements, and public-private partnership agreements) and support to the DoF and Ministry of Justice to develop sentencing guidelines derived from the amended Forestry Act.

Disseminate approved laws, regulations, and guidelines:

Lead Partner: *LWT/CEPA*

Primary Responsible: *MCHF Regulatory and Enforcement Specialist (Objective 3 Lead), Ms. Yolanda Ng'oma*

Timeline: *Ongoing–FY2023*

MCHF will support the DoF and Ministry of Justice to disseminate approved laws, regulations, and guidelines. The team will communicate changes to the laws and regulations broadly to ensure people are aware of the new legal framework, including allowed and prohibited activities, and the penalties associated with specific crimes. As part of this process, LWT and CEPA will support disseminations to specific target audiences. MCHF will support the DoF to establish pilots to operationalize regulations and guidelines within MCHF-targeted landscapes and will monitor their implementation.

5.3.2 RESULT 3.2: IMPROVED CAPACITY TO ENFORCE LAWS ON ILLEGAL CHARCOAL PRODUCTION AND ILLEGAL TRADE IN FOREST PRODUCTS

Since 2016, LWT has been developing the capacity and effectiveness of law enforcement in Malawi to address wildlife crime. This has included training and mentoring the Wildlife Crime Investigation Unit (CIU) of the Department of National Parks and Wildlife and the MPS CIU. Capacity development has focused on investigations and building cases based on admissible evidence. MCHF's approach to IR 3.2 draws on the experiences, lessons learned, and "infrastructure" of LWT's work with various government agencies building capacity for forestry-related crime investigations, strengthening justice by training prosecutors and magistrates in sentencing guidelines, and supporting prison monitoring.

In FY2021, the main activities under this IR will focus on:

- Providing training and capacity building to forest guards, CIU officers, and community enforcement networks;
- Supporting the DoF to improve forest crime investigation capacity;
- Disseminating forestry-related legislation and regulations to prosecutorial staff and training in-house prosecutors;

- Establishing court and prison monitoring systems; and
- Developing and implementing a forest crime disruption strategy.

Output:

- Baseline data on forestry crimes collected and collated, and baseline conviction rate established.
- Training curriculum developed and used to train identified forest guards, CIU officers, district forestry officers (DFOs), and VNRMCs.
- Established single points of contact within the CIU who work on forestry crime investigations.
- Select prosecutors trained in forestry legislation and legal tools (specifically, prosecutors in project landscapes).
- Court and prison monitoring program that includes ensuring convicts serve sentences established.

Key Activities:

Build capacity of forest guards, CIU officers, and community enforcement networks:

Lead Partner: *LWT*

Primary Responsible: *MCHF Regulatory and Enforcement Specialist (Objective 3 Lead), Ms. Yolanda Ng'oma*

Timeline: *Ongoing–FY2023*

MCHF will work through the DoF, MPS, and the respective District Councils to identify forest guards posted to selected forest reserves/plantations and establish community enforcement networks. MCHF will disseminate information on relevant laws, regulations, and guidelines to these targeted stakeholders and will train them on how to implement these within their operational mandates, building transparency and accountability between the DoF staff, VNRMC members, and the communities more broadly.

Strengthen capacity for forestry crime investigations:

Lead Partner: *LWT*

Primary Responsible: *MCHF Regulatory and Enforcement Specialist (Objective 3 Lead), Ms. Yolanda Ng'oma*

Timeline: *September 2020–FY2023*

MCHF will work with the DoF and MPS to identify Forest Crime Investigators within the MPS CIU to train and mentor in investigative skills, evidence collection and chain of custody, valuation of illegal forest produce, etc. To help standardize training, MCHF will support development of SOPs for investigators, which will address how investigators catalogue evidence, collect witness statements, write incident reports, and present cases, among other areas. This process will result in a small

number of highly trained investigators who will, in turn, liaise with community enforcement networks.

Strengthen capacity for prosecution of forestry crimes:

Lead Partner: *LWT*

Primary Responsible: *MCHF Regulatory and Enforcement Specialist (Objective 3 Lead), Ms. Yolanda Ng'oma*

Timeline: *August 2020–FY2023*

MCHF will implement this activity at two levels. First, the team will support the dissemination of forestry-related legislation and regulations to the MPS and Directorate of Public Prosecution (DPP) and will design and deliver training to ensure understanding of forest crimes, as defined in the amended Forestry Act and subsidiary legislation, and associated penalties. Second, MCHF will work with the DoF to identify departmental staff for training as in-house prosecutors, in an effort to ensure these skills and competencies reside within the DoF.

In addition, MCHF will support the GoM to carry out periodic (biannual) case review meetings with prosecutors (including prosecutors from the MPS, DPP, and DoF). At these meetings, prosecutors (and the judiciary) will review actual and hypothetical cases to determine whether court outcomes were correct and proportionate with the crimes committed.

Establish a court and prison monitoring program:

Lead Partner: *LWT*

Primary Responsible: *MCHF Regulatory and Enforcement Specialist (Objective 3 Lead), Ms. Yolanda Ng'oma*

Timeline: *Ongoing–FY2023*

MCHF will work with the DoF, MPS, and courts to complete the baseline assessment of forestry crimes from which the team will establish the baseline forestry crime conviction rate. Through this activity, MCHF will also support establishment of a system to monitor court cases and outcomes. This will be an essential building block to tracking the efficacy of forest crime prosecution and will help to ensure transparency in forest crime prosecution.

Over time, this program will help to collect information from convicted criminals on their sentencing and whether this is deterrent enough to prevent them/others from committing the same crime in the future. This information will help to inform future reviews of the regulatory framework and will help correlate crimes-punishments-disincentives.

Develop and implement a forest crime disruption strategy:

Lead Partner: *LWT*

Primary Responsible: *MCHF Regulatory and Enforcement Specialist (Objective 3 Lead), Ms. Yolanda Ng'oma*

Timeline: *April–September 2021(continued in subsequent FYs)*

Building on the results of the PEA (IR 1.3), MCHF will work closely with the DoF and MPS to develop a forest crime disruption strategy to focus activity investments in areas with the greatest potential to address the magnitude of charcoal-related and other forest crimes. The strategy will determine the best approaches to countering forestry crime, including the levels of criminality that law enforcement should target (acknowledging the various theories of reducing crime). The crime disruption strategy will also determine a wide range of disruption tools—including those outside of formal judicial processes such as media campaigns—and disruptive activities such as monitoring roadblocks.

5.3.3 RESULT 3.3: IMPROVED ADVOCACY AND PUBLIC AWARENESS ON FORESTRY LAWS AND REGULATIONS

IR 3.3 is directly linked to broader communications, awareness-raising, and advocacy interventions under Objectives 1 and 2 (and described in Section 6.1, Communications) and is designed to improve civil society engagement, advocacy, and government accountability. MCHF focuses on scaling up public awareness of key legislation, regulations, policies, strategies, FMPs, and co-management agreements that support the charcoal and forestry regulatory framework and law enforcement. These focus particularly on the regulations developed under IR 3.1 but also include key strategies and policies such as the NCS, Forestry Policy, and Energy Policy.

MCHF partners will work together to design and implement national and local information and awareness campaigns through print, radio, television, and electronic media. At both the national and the local levels MCHF will raise awareness of the linkages between illegal and unsustainable charcoal production, forest and land degradation, and food/livelihood security, hydropower production, electricity costs, climate resilience and other factors. LWT, CEPA and Tetra Tech will all play a role engaging the media and stimulate regular media coverage on the forestry and cooking energy sectors, including charcoal issues and, more broadly, forestry-related crime. This will be coupled with the design and implementation of focused advocacy campaigns that target key policy and decision makers. At the national level Ministers and Members of Parliament are the principal channels for advocacy; and at the local level the District Commissioners, Directors of Planning and Development and the Traditional Authorities will be the principle channels for advocacy.

In FY2021, the main focus areas are:

- Providing information and awareness materials to journalists (through AEJ and other sources) to support improved reporting on forestry-related topics;
- Developing focused advocacy and media training for public relations officers in the DoF, Ministry of Forestry and Natural Resources, Ministry of Energy, MPS, and the judiciary; and,
- Planning for a "forestry and energy symposium" for the first quarter of FY2022.

Output:

- Information and awareness products developed and disseminated at the national, landscape, and local levels.
- Targeted advocacy materials that inform key national and local level policy- and decision-makers developed and disseminated through various sources.
- Forest and energy symposium conceptualized, with buy-in from GoM, donor partners and other stakeholders.

Key Activities:

Raise awareness of changes to the Forestry Act and relevant regulations at the landscape level:

Lead Partner: LWT/*CEPA*

Primary Responsible: *MCHF Regulatory and Enforcement Specialist (Objective 3 Lead), Ms. Yolanda Ng'oma*

Timeline: *October 2020–September 2021*

In an effort to ensure that changes in legislation and regulations are known and understood in rural, charcoal production areas, MCHF will design and implement a focused awareness campaign to communicate these developments within targeted landscapes. This will serve to document changes in the legal and regulatory framework and will highlight changes in penalties, including fines and custodial sentences. MCHF awareness efforts in targeted landscapes and urban centers will focus on making the linkages between the role of trees and forests in food/livelihood security, water security, energy security, and in climate-resilient development more broadly.

Develop and implement targeted campaigns to advocate for needed changes in the forestry and energy sectors:

Lead Partner: *Tetra Tech/CEPA/LWT*

Primary Responsible: *MCHF CSMBC Specialist, Mr. Eliam Kamanga*

Timeline: *November 2020–September 2021*

In an effort to build high-level support for MCHF-related priorities, the team will develop and implement a series of advocacy campaigns that targets key decision- and policy-makers, including ministry leadership, parliamentarians, District Commissioners and Traditional Authorities to advocate for support for a range of topics. These will include improved regulation and enforcement of the amended Forestry Act, support for the development of Charcoal Regulations and associated guidelines, improvements to the business environment to foster private sector growth in the cleaner cooking sector (including support for more comprehensive tax relief and incentives for investment in the sector).

As part of this effort, in FY2021 MCHF will support GoM partners to organize two strategic consultations with key policy and decision-makers, including the Honorable Minister of Energy, the Honorable Minister of Forestry and Natural Resources, members of Parliament, and Chief Resident Magistrates. These consultations will be organized in consultation with the GoM and will coincide with the Parliament's schedule to more easily and economically reach the largest number of stakeholders. This "just-in-time" approach will also help to ensure that these focused advocacy efforts are delivered when these key stakeholders are debating and making important decisions (e.g., on budget allocations).

Promote fact-based reporting in the forestry sector:

Lead Partner: *LWT/Tetra Tech*

Primary Responsible: *MCHF CSMBC Specialist, Mr. Eliam Kamanga*

Timeline: *November 2020–May 2022*

In FY2021, MCHF will design an investigative journalism series with the AEJ. The goal of this series will be to promote fact-based reporting on the forestry sector, and more broadly to help cultivate a culture of investigative journalism in the forestry and related sectors. MCHF will work directly with AEJ to advertise this opportunity, jointly review applications and select the journalists who will conduct research and develop fact-based coverage on selected forest reserves and topical subjects of interest to MCHF (e.g., the Lilongwe charcoal market). Each selected journalist will be provided with a package of information specific to her/his topic. Each journalist will be responsible for reviewing the information provided, developing a research plan, and conducting field research. Each journalist will publish their "product" directly through their affiliated media house/s. MCHF will then work with the AEJ to develop a "forestry dossier", which will be disseminated in both hardcopy and electronically, and potentially used as an input into the high-level national advocacy, presented in the previous activity.

Raise awareness of key forestry-energy issues and dynamics within the Central Landscape:

Lead Partner: *Tetra Tech/Grantee*

Primary Responsible: *MCHF CSMBC Specialist, Mr. Eliam Kamanga*

Timeline: *January 2021–July 2022*

In FY2021, MCHF will design a focused Request for Applications to raise awareness of forestry-energy dynamics more broadly within the Central Landscape. This grant will support interactive engagement with a variety of stakeholders and will utilize a range of media. The team will design the RFA by the end of Q1, and it is expected that the grant agreement will be signed and the grant operational before the end of Q3. This approach may be scaled up to other areas of focus in other geographies (e.g., Northern Landscape, Southern Malawi) or specific topics (e.g., plantations) in FY2022.

5.4 OBJECTIVE 4: GOVERNMENT OF MALAWI'S IMPLEMENTATION CAPACITY OF LOW-EMISSIONS DEVELOPMENT IN REDD+ AND/OR OTHER LAND USE INCREASED

As referenced in Section 2.2 above, through PERFORM, USAID supported the GoM to achieve all major milestones of the 2015 NFMS Roadmap. Taken together, these efforts have allowed Malawi to move past the piloting phase of NFMS development. Through MCHF, USAID and FCDO are moving to implement and institutionalize key systems, tools, and technologies that will provide the requisite data and information base for improved management and monitoring of forest landscapes across multiple scales.

5.4.1 RESULT 4.1: IMPROVED GOM CAPACITY TO UTILIZE SYSTEMS, TOOLS, AND TECHNOLOGIES TO MANAGE AND MONITOR FOREST LANDSCAPES

The primary obstacles for the GoM to improve monitoring of forest landscapes are not technological but instead involve institutional arrangements and human resources. Under IR 4.1, MCHF builds GoM capacity to collect, manage, and utilize key data and information at multiple scales

(woodlot, government plantation, forest reserve, landscape, national) that will be incorporated into the data management system (DMS; see IR 4.2). The REDD+ monitoring, reporting, and verification (MRV) working group—which partner CEPA will continue to convene—includes GoM and local academic institutions and will serve as MCHF's main focus of institutional engagement. The team will also coordinate closely with other national-level actors including the Forestry Research Institute of Malawi, donors investing in LEDS (e.g., the UNDP, FAO, and World Bank), and private sector landholders with large forest holdings.

In FY2021, MCHF's main areas of focus for this result are:

- Harmonizing monitoring tools and approaches associated with the NFI, deforestation estimation, FLR monitoring, and the Department of Local Government's integrated monitoring system;
- Clarifying roles and coordinating monitoring efforts for the NFI, deforestation estimation, Malawi National FLR Monitoring Framework, and Department of Local Government integrated monitoring system;
- Supporting the GoM to conduct the forest inventories and the deforestation estimation for each MCHF landscape; and
- Building GoM capacity to track forest cover and land restoration by equipping the NMU with methodologies, reference guides, and training materials.

Output:

- Indicators from the Malawi National FLR Monitoring Framework integrated as appropriate into the Department of Local Government's integrated monitoring system and indicators/data from the NFI applied for tracking through Malawi National FLR Monitoring Framework.
- NFI fieldwork for additional NFI cluster plots completed and national carbon stock estimates updated, including additional sampling outside of forest reserves.
- A functional GoM NMU established and equipped with appropriate resources (hardware and software) and staff.
- Capacity building plan for NMU documented developed and being implemented.
- Guidance documents, SOPs, and workbooks/geographic information system (GIS) scripts required for NMU analysists to fully undertake at least three priority monitoring functions (NFI, deforestation estimation/monitoring, and at least one other to be determined through discussions with the DoF).

Key Activities:

Integrate and streamline monitoring approaches and tools for forest/FLR monitoring:

Lead/Partner: *WI/WRI*

Primary responsible: *MCHF REDD+ and LEDS Specialist (Objective 4 Lead), Mr. Mike Chirwa*

Timeline: *January–September 2021*

In 2019, the GoM completed its first NFI and first estimation of deforestation. In 2018, the GoM also developed a National FLR Monitoring Framework that includes recommendations for indicators for inclusion in the Department of Local Government's integrated monitoring system to track and report progress against FLR goals. The DoF is also piloting the use of Open Foris-Collect Earth to FLR interventions in Ntcheu (through the Global Environment Facility [GEF]-7 STAR Allocation-funded Activity), and the USGS has recently finalized development of a baseline map (2017) of tree density on agricultural land. While each of these tools and approaches has merit, there is a need to review, streamline, and integrate tools into a monitoring system for sustainability. In FY2020 MCHF and the DoF initiated the establishment of an NMU to consolidate forest/FLR monitoring. In FY2021 MCHF will continue to work with the DoF to make the unit fully functional. As part of this process, MCHF will support the GoM to integrate the NFI data, the deforestation estimation, and other aspects of FLR monitoring into the unified DMS.

Support GoM to carry out the NFI inside and outside MCHF sites:

Lead: *WI*

Primary Responsible: *MCHF REDD+ and LEDS Specialist (Objective 4 Lead), Mr. Mike Chirwa*

Timeline: *Ongoing–November 2021, July–September 2021*

In accordance with the FY2020 AWP, MCHF will support the GoM to continue the NFI in September and October 2020. This will focus on conducting forest inventories within the seven forest reserves where MCHF is working. This includes focused support to WAG in the Thuma Forest Reserve and the Dedza-Salima Escarpment Forest Reserve, where the group would like to design and develop a carbon project. Prior to commencing the field forest inventories in September, MCHF supported the DoF to review and revise its SOPs and develop an NFI sampling design that considers both national and local needs of forest assessment. In FY2021, MCHF will support the DoF to agree on initial areas to be inventoried outside the Activity's forest reserves and to complete the NFI in these selected areas. Additionally, MCHF will conduct studies to explore and prototype inventory designs in sparsely forested sites such as agricultural landscapes and riparian forests.

Build GoM capacity by equipping the NMU with methodologies, reference guides, and training materials:

Lead: *WI with WRI*

Primary Responsible: *MCHF REDD+ and LEDS Specialist (Objective 4 Lead), Mr. Mike Chirwa*

Timeline: *January–September 2021*

MCHF will work with the DoF to put in place a sustainability plan that will be agreed to by both parties. As part of this process, the main focus for MCHF will be:

- Evaluating capacity and technology needs based on initial assumptions about the DoF's role in NFMS and FLR functions;
- Working with the DoF to agree on a reasonable level of activity support versus self-financing over the LOA;
- Establishing the NMU, with appropriate facilities and technologies; and

- Formalizing engagement between the Objective 4 Lead and GoM NMU staff, including specified roles and responsibilities for completion of NFMS and FLR monitoring tasks.

To develop the national monitoring capacity building plan, MCHF will define capacity needs for NFMS and FLR monitoring, assess capacity, identify gaps, and develop an LOA strategy to address those gaps. Capacity building will thus be guided by NFMS technical specifications and FLR monitoring needs, and the capacity building strategy will focus on the following groups: data producers and analysts, information users, and system administrators/managers. Capacity building activities will primarily target current government employees, interns in the DoF, and university students enrolled in programs from which the DoF recruits. WRI will support capacity building efforts by sharing reference materials, instructional materials, and publications produced from FLR monitoring efforts and capacity building events (e.g., Collect Earth map-a-thons).

5.4.2 RESULT 4.2: INSTITUTIONALIZED DATA MANAGEMENT SYSTEM FOR FOREST LANDSCAPE MANAGEMENT AND MONITORING

The DMS for forest landscape management and monitoring must 1) facilitate the collection and use of data that is timely, complete, and devoid of errors; and 2) serve planning, monitoring, and management functions at the district and national scales. These functions are all best met through a shared data storage system, controlled entry points for various data categories, and automated report generating capabilities. MCHF supports the GoM to develop a system that seamlessly integrates the national and local scales and provides information that is readily accessible in the forms required by each user type. Components of this system, including the tools and technologies, will be simple and intuitive enough that they can be operated with minimal time requirements or need for specialized training and use flexible technologies already widely adopted in Malawi. For example, MCHF will use Microsoft Excel for archiving and analysis, WhatsApp groups and email templates for district and community reporting, and Google Earth/Collect Earth for targeted remote sensing. This will most likely utilize cloud-based architecture for data entry, archiving, and retrieval. Box 4 describes key steps for developing and institutionalizing the DMS.

Box 4. Key Steps for Developing and Institutionalizing DMS

- Conduct a survey of GoM priorities for land monitoring, pooling lists of potential indicators and reporting requirements.
- Work with high level GoM, academic, and other representatives to reach consensus on objectives and outcomes of the monitoring/management system.
- Translate system requirements into data management activities and review roles.
- Assess gaps in capacity to execute elements of the system, building on existing REDD+ and GHG information system capabilities within the DoF and Environmental Affairs Department.
- Develop recommendations from gap assessment and pursue consensus on institutional home and supporting roles.
- Develop technical framework for system design, incorporating consensus on institutional roles and system objectives for supporting priority management activities.
- Provide recommendations on technologies to potential user groups and seek consensus on technology components.
- Develop individual components of the system initially as standalone modules focused on the scale and management objectives relevant to each user type; undertake modular design with the understanding that components will be integrated into a single system after the piloting stage.
- Identify case studies of system use with partners in the planning, implementation, and monitoring phases of activities at multiple scales including woodlot establishment, trees on farm, and watershed protection activities.
- Work with priority user groups to pilot the subsystems for data collection, management, and information retrieval.
- Conduct repeated capacity building efforts with a core cadre of national and district actors on data entry, interpretation, and dissemination.
- Review institutional context for formalizing and regularizing mandatory activities of the system through such mechanisms as inter agency memoranda of understanding, technical orders, and staff position descriptions.

The system will include national-scale spatial datasets, custom-tailored GIS tools operating on those data, and standardized outputs for communicating region-specific information to district actors. Data at the national scale will come from both nationally produced and international sources, including the NFI, plantation records, remote sensing-based MRV for REDD+, and bottom-up information generated from district-level activities.

At the district level, the system will track forestry activities in government plantations and coordinate and keep record of restoration and woodlot activities in customary lands. For planning, the system will provide access to up-to-date maps identifying potential for achieving maximum site-specific benefits from forestry activities in relation to multiple ecosystem services, including energy, food, biodiversity, and water. District actors also will benefit from simplified data entry workflows to track forestry investments.

In FY2021, the main focus areas will be on:

- Establishing consensus around national policy priorities for NFMS and FLR monitoring outputs;

- Defining monitoring needs and best approaches for priority core NFMS and FLR monitoring functions;

- Implementing the tools and technologies needed to carry out the initial priority NMU and FLR monitoring functions; and

- Finalizing the components needed to undertake at least three distinct NFMS functions.

Output:

- An established and functioning DMS institutionalized in the DoF to support forest management and monitoring (completion was delayed until FY2021 due to COVID-19).

Key Activities:

Institutionalize DMS for forest landscape management and monitoring:

Lead: *WI*

Primary Responsible: *MCHF REDD+ and LEDS Specialist (Objective 4 Lead), Mr. Mike Chirwa*

Timeline: *February–July 2021*

MCHF will build consensus around national policy priorities for NFMS and FLR.

To do this, the team will:

- Validate a desk review of all formally accepted national strategic documents pertaining to national forest management, including, but not limited to, the Forest Policy, FLR Strategy, NCS, and National Forest Monitoring System Roadmap;

- Archive and organize datasets within the NMU's systems;

- Convene high-level consultations with representatives from GoM Departments of Forestry, Surveys, Energy Affairs, and Disaster Management Affairs and the Ministry of Local Government and Rural Development to discuss a shared framework for forestry and landscape data needs;

- Based on the draft framework, map out specific data requirements (frequency, format, spatial referencing, etc.) and institutional roles and responsibilities; and

- Present proposed prioritization of NFMS and FLR functions to national government stakeholders for validation.

Additionally, as part of institutionalizing the DMS, MCHF will identify monitoring needs and best approaches for priority core NFMS and FLR functions. The team will convene expert practitioner working groups around the key themes of core functionality and will review case studies of NFMS from regional or relevant international context, and any evolving FLR case studies that become available.

Finalization of the initial priority functions of the NMU has been delayed due to COVID-19. In FY2021, MCHF will target a subset of possible monitoring priorities and work to build this capacity. MCHF considers a monitoring approach to be fully implemented when it meets the following criteria:

- Approach documented in SOP or guidebook;
- NMU trained on use: training materials developed, delivered, and users given hands-on experience;
- Approach implemented in at least one test case;
- Issues of data access requiring agreements with other institutions documented and resolved;
- Digital results of analysis/monitoring activity archived within the NMU and, where permissible, accessible to public; and
- Result disseminated in analysis report.

One of these discrete monitoring efforts will focus on an estimation of deforestation rates, using the GoM's approved approach to estimating deforestation, as detailed in the Malawi Forest Reference Emission Level (FREL 2019). This assessment will focus on the two target landscapes, with a higher density of point observations than were undertaken in the national effort to produce localized baselines and monitoring datasets of deforestation rates. The baseline rate of deforestation will be established by acquiring and analyzing imagery using visual interpretation of canopy cover from roughly 2009–2019/2010–2020 to record the fraction of the forested landscape with deforestation observed. MCHF will use the fraction to extrapolate to the wider landscape the total amount of deforestation incurred annually from 2009–2019/2010–2020. This estimate of historical deforestation over the previous ten years will serve as the baseline for assessing a reduction in deforestation by landscape.

MCHF will target reaching all of these milestones for at least three NMU functions by the end of FY2021. It is anticipated now that this will include updated NFI work, assessment of deforestation, and a focus on restoration planning. MCHF intends to develop many of these possible functions over the LOA but will focus on ensuring that at least three are fully established in FY2021.

5.4.3 RESULT 4.3: IMPROVED CAPACITY OF FORESTRY OFFICIALS AND COMMUNITIES TO MONITOR FOREST LANDS

Based on experience from PERFORM, the MCHF team realizes that extensive data collection gaps exist at the local level, especially for FLR activities. Under IR 4.3, MCHF will: 1) build the capacity of forestry officers within forest reserves and private plantation owners to provide tabular records on management activities; 2) develop standardized management tracking templates and SOPs that will feed into national reporting systems and the DMS; and 3) support communities to utilize monitoring tools for improved landscape management.

In FY2021, the main focus areas will be on:

- Assessing potential for sustainable energy production within project landscapes;
- Developing typology of forest management systems to organize MCHF support for management and monitoring;
- Developing a framework for data management needs and workflows for subnational managers;
- Clarifying the role of DFOs in forest monitoring on various forest management classes; and

- Building GoM capacity to track forest cover and land restoration by equipping subnational monitoring and evaluation (M&E) leads with methodologies, reference guides, and training materials about how to set baselines and monitor progress/impacts of FLR.

Output:

- Results of analysis, including repeatable methodology and archived datasets.
- Document outlining activity rationale for prioritizing specific forest management categories developed.
- Data management framework for forest managers in place.
- Strategy document outlining approach to achieve sustained engagement by DFOs in subnational forest monitoring developed.

Key Activities:

Identify data needs for each land use in MCHF landscapes (e.g., forest reserves, plantations, estates, customary lands):

Lead: *WI*

Primary Responsible: *MCHF REDD+ and LEDS Specialist (Objective 4 Lead), Mr. Mike Chirwa*

Timeline: *January–September 2021*

MCHF will assess potential for sustainable energy production within Activity landscapes. This will entail desk-based GIS analysis and use of forest management models, with consideration of land tenure and management constraints. Thus, MCHF will:

- Collect and compile spatial data on physical, ecological, human, and management characteristics in target landscapes;
- Assuming best management practices, use established forest productivity models for Malawi to estimate the possible contribution of various lands to increase sustainable wood biomass projection;
- Discount production models based on known management, tenure, and economic constraints; and
- For each landscape, rank various forest/land management models on their ability to increase sustainable supply both in aggregate across the landscape and on a per-hectare basis.

Additionally, MCHF will develop typology of forest management systems to organize activity support for management and monitoring. To accomplish this, the team will develop a prioritization framework that integrates local expert knowledge from the DoF and results from sustainable forest production, which will include validating results with the department. Thus, the process will entail the following:

- Developing a framework for prioritizing management models, based primarily on potential for sustainable energy production, but also including attractiveness to investment, non-monetary benefits, and natural capital.

- Conducting a rapid survey of management practices in target landscapes to establish main themes of forest management, such as indigenous forests on customary land (VFA, unmanaged forest), community woodlots, private plantations on concession, private estate plantations, co-management in forest reserves, direct management of forest reserves by the DoF, DoF-managed plantations, and farmer-managed natural regeneration.

- Simplifying the list by combining management types with similar actors, management objectives, scale, or support needs.

- Presenting the proposed simplified/prioritized list to the DoF at district and national levels for validation.

- Documenting simplified management types along characteristics of typical objectives, forest type, economic potential, and direct benefit to community.

Support village leaders and local institutions in monitoring tools and approaches:

Lead: *WI*

Primary Responsible: *MCHF REDD+ and LEDS Specialist (Objective 4 Lead), Mr. Mike Chirwa*

Timeline: *January 2021–September 2021(and in subsequent FYs)*

MCHF will develop a framework for data management needs and workflows for subnational managers (customary lands). To do this, the team will follow main data management groups identified in landscapes and convene expert practitioners relevant to each practice. The process will entail:

- Identifying NGO, government, and business experts who can advise on models;

- Through periodic engagements, developing a framework based on needs/constraints for each management type, specifically around issues of developing and acting on management information;

- Reviewing best practices and state of forestry technologies, as well as identifying approaches and tools that can meet minimum management needs for each forest type;

- Identifying constraints in capacity and incentives for various approaches;

- Proposing a model of data collection and analysis; and

- Documenting each proposed monitoring framework by management type and validating them with expert informants and potential users.

Build capacity of DFOs and managers of non-state (e.g., private, community) forests:

Lead: *WI*

Primary Responsible: *MCHF REDD+ and LEDS Specialist (Objective 4 Lead), Mr. Mike Chirwa*

Timeline: *January 2021–September 2021*

MCHF will work with the DoF to clarify the role of the DFOs in forest monitoring on various forest management classes. To do this, the team will propose roles for the DFO based on knowledge of forest manager needs, resource requirements, and existing capacity. MCHF will develop a process to define and formalize monitoring roles. This process will entail:

- For each forest management category, proposing a general role for DFOs such as direct monitoring, auditing, or extension on monitoring;
- Reviewing current job descriptions/office responsibilities of DFOs and frontline forestry officers;
- Working with the DoF to develop a process to formally integrate new or revised monitoring responsibilities into DFO job descriptions; and
- Working with the DoF to identify capacity needs, institutional incentives, and resources needed to ensure participation by the DFOs.

In coordination with WI, WRI will convene a workshop in FY2021, to strengthen capacity of district M&E officers and others responsible for subnational monitoring efforts and implementation of five-year District Development Plans to use agreed-upon tools and approaches to set vegetation baselines and monitor changes from FLR interventions. This workshop will improve the quality of FLR data collection and integrate more quantitative data into annual district-level planning, coordination, and District Development Plan implementation processes.

5.5 OBJECTIVE 5: INTERVENTIONS LEVERAGED WITH OTHER USAID AND DEVELOPMENT PARTNER RESOURCES

Reflecting on the current development context, USAID/Malawi made strategic choices to develop and implement an integrated, gender-sensitive, five-year CDCS, the overarching goal of which is "a more self-reliant Malawi that is gender-equitable and democratically accountable." To help move Malawi toward greater ownership of its development challenges, USAID/Malawi has prioritized three Development Objectives (DOs):

- DO1: Public sector is more accountable and effective at national and decentralized levels
- DO2: Youth lead healthy, informed, and productive lives
- DO3: Private sector increases inclusive and sustainable wealth generation

The 2020–2025 CDCS defines ten strategic principles, grouped into three broad themes, that underpin the new CDCS. These themes are: 1) broader partnerships, to diversify the partner base and ways in which awards are made and managed; 2) bolder selectivity, to prioritize investments where there is greater commitment and ownership; and 3) better approaches, to bring innovative interventions to complex development problems. Through this approach, USAID/Malawi will focus energies on aligning itself with new local partners (including the private sector), invest where there is demonstrated commitment and political will for change, and use an integrated approach across sectors to untangle some of Malawi's most intractable development challenges.

MCHF embraces and works to operationalize USAID/Malawi's new CDCS. The team's approach, as outlined in previous sections, embraces broad partnerships; is selective in reviewing, prioritizing and investing in "best bet" activities; and supporting development of better approaches to address the complex development context in which MCHF operates at both the national and landscape levels.

This section describes how MCHF will work with and leverage the expertise and resources of other USAID activities, development partners, the GoM, and the private sector to expand the scale and enhance the sustainability of USAID and FCDO investments through MCHF.

5.5.1 RESULT 5.1: DISCRETE INTEGRATION OPPORTUNITIES SUCCESSFULLY IMPLEMENTED

Tetra Tech had the opportunity to support USAID/Malawi to test and implement a range of integrated, cross-sectoral activities under the Mission's previous CDCS (2013–2020). This approach has now been integrated into the CDCS 2020–2025 and strategically expanded to " … move investments away from single-sector solutions, designed to address specific deprivations, to problem-focused solutions with the greatest transformational potential for self-reliance." While the current CDCS was finalized and disseminated almost one year after the start of MCHF, and the intent of the Mission going forward is to "design projects with integrated DO-aligned approaches and apply evidence to inform cross-sectoral interventions," the team has invested time and effort to work with a range of partners to identify a number of initial integration opportunities. These are described below, and each embraces some principles of co-location, coordination, and/or collaboration.

In Q1 of FY2021, MCHF will engage with these and other partners to develop discrete integration activities that, in addition to a shared integration activity goal, will articulate the commitments of each partner, the benefits to each partner, and measures for monitoring and reporting. This initial list notwithstanding, MCHF will remain flexible and will work over the course of the fiscal year and the LOA to continue developing win-win integration activities.

Integration with USAID/Malawi Activities:

Integration with Feed the Future Agriculture Diversification (AgDiv) Activity: MCHF will integrate with Feed the Future AgDiv in the shared geographies of Dedza and Lilongwe. Integration may include (dependent upon successful negotiation with the carbon finance partner) using the same model and service delivery to scale up adoption of improved firewood cookstoves within Feed the Future AgDiv and MCHF field sites. This approach would twin the provision of improved firewood cookstoves with bamboo seedlings as an incentive, and a renewable source of fuel supply. In addition, MCHF will work with Feed the Future AgDiv, leveraging their experience and partnerships with the private sector (e.g., Illovo, Limbe Leaf, Pyxus, and PressCane) and outgrowers to explore opportunities to scale up commercial production of bamboo charcoal and alternative biomass energies.

Integration with USAID Restoring Fisheries for Sustainable Livelihoods in Lake Malawi (REFRESH) Activity: MCHF will integrate with REFRESH in the shared geographies of Dedza, Nkhata Bay, and Salima districts. Integration activities may include landscape restoration upstream from key fish biodiversity areas; support to FFEs/conservation enterprises; joint integration with the USAID Local Governance Accountability and Performance (LGAP) Activity to address deficiencies associated with district-level bylaws; and testing and promotion of fuel-efficient fish processing technologies. In addition, MCHF will engage REFRESH in relevant CoPs (e.g., FFEs).

Integration with LGAP: MCHF will integrate with LGAP in all MCHF districts to two ends. Through the forest and landscape restoration action planning process, MCHF will support focal districts to develop key data-driven planning and monitoring tools, which will be produced, printed, and available in each district. Second, MCHF will work with LGAP to address documented weaknesses in the

development of district bylaws. At present, the bylaws developed through LGAP include a maximum penalty of MWK 2,000 and do not support use of the GoM's Fines and Conversion Act. In addition to the resulting penalties being far below the penalties enabled by the Forestry Act, the promotion of "spot fines" has introduced a new opportunity for corruption and provides a disincentive to prevent forestry crimes from happening.

Integration with National Efforts:

Integration with MwAPATA: MCHF will integrate with MwAPATA to support targeted advocacy with high-level policy- and decision-makers. This will leverage the work of both MCHF and MwAPATA on the forestry-energy nexus.

Integration with the National Planning Commission (NPC): MCHF will integrate with the NPC to support the Ndizotheka Transformative Initiatives. Under the initiative, the NPC will document, through creatively produced mini-video documentaries, the transformative wealth creation enterprises run by individuals or groups and promote these through social and traditional media. Through engagement with NPC during the last quarter of FY2020, MCHF was asked to recommend enterprises in both the clean cooking and FFE sectors. The NPC will screen the enterprises MCHF recommended in early FY2021, prior to final selection.

Integration with Other Donors:

GEF-7 STAR Allocation (Ntcheu, Mangochi, and Balaka) Sustainable Landscapes Impact Program (DSL-IP): MCHF will integrate with DSL-IP, through the range of implementing partners led by the DoF, to support development of the Forest and Landscape Monitoring Unit within the department. This will include collaboration on approaches for data collection and monitoring.

German Government's International Climate Initiative (IKI) Regional FLR Project (Ntcheu) (Large-Scale FLR): MCHF will integrate with IKI, through the range of implementing partners led by the FAO, to support development of the DoF's Forest and Landscape Monitoring Unit. This will include collaboration on approaches for data collection and monitoring. In addition, integration with this activity, which targets the mopane forest ecosystem, may be a source of additional data for this stratum within Malawi's NFI.

UNDP ACRE Project: MCHF will integrate with the UNDP-funded ACRE Project that will establish an Employer Guaranteed Clean Cooking Fund. Funded at approximately $500,000 over three years, ACRE presents an opportunity to scale up adoption of cleaner cooking solutions across the four urban areas.

5.5.2 RESULT 5.2: MOBILIZED INVESTMENT FOR SUSTAINABLE LANDSCAPES

Mobilizing public and private finance and investment for sustainable landscapes is integral to MCHF's approach. The activity seeks out sustainable landscape financing and investment opportunities across the full spectrum of potential sources, including crowdfunding, NGOs, GoM, and international cooperation; climate finance, development finance, and private equity impact funds; and traditional investors. MCHF aligns these to support key GoM strategies, particularly the NFLRS and NCS, and key initiatives including the Bonn Challenge and AFR100, through WRI's leadership and engagement and the Land Accelerator program. The team seeks opportunities to access funding from the Green Climate Fund through accredited entities, such as the FAO.

MCHF will facilitate interest in sustainable landscape finance and investment through a range of tools including development and dissemination of market information packages, documenting lessons learned and good practices that stem from the activity and communicating these with AFR100 technical and financial partners. The team will achieve this through: 1) regular meetings (including the AFR100 annual partners meeting and the Global Landscapes Forum); 2) AFR100 communications channels (including a quarterly newsletter and social media); 3) communications with global media outlets (e.g., the BBC); and 4) online platforms such as 100 Landscapes and its online restoration marketplace, to showcase successful landscape restoration and FLR enterprises in Malawi and attract financing.

Output:

- Relevant market research and other communications and information-sharing channels most relevant for philanthropic funders, private financiers, and businesses in Malawi documented.

- Urban cooking energy and FFEs and restoration projects documented and publicized through the above channels.

Key Activities:

- In collaboration with CEPA and mHub, MCHF will identify and document relevant media and information-sharing channels for landscape success stories in Malawi.

- The Activity will publicize landscape stories, champions, efforts, results, forward-looking plans, and FFE profiles through these channels and to 29 African countries at the AFR100 Annual Partners Meeting (set for November 2020 in Mozambique).

- MCHF will share business profiles with MITC for possible inclusion in the annual Malawi Investment Forum.

- The team will produce and share a digital LookBook profiling Malawian businesses that participate in the Land Incubator and, if applicable, Land Accelerator with media and major communications outlets.

- MCHF will vet and post qualifying project entries on TerraMatch on a rolling basis.

6.0 CROSS-CUTTING AREAS AND COMPLIANCE

6.1 COMMUNICATIONS

Communications are central to successful implementation of MCHF across all five objectives. In the fourth quarter of FY2020 MCHF developed a Communications Strategy that defined four MCHF communication priorities: broad information and awareness; targeted advocacy; strategically designed SMBC communications; and Activity-level communications. Implementation of the Communications Strategy will begin in FY2021 and will continue through the LOA. Key elements of the Communications Strategy that MCHF will implement in FY2021 are summarized below:

1. **Information and Awareness Communications:** MCHF will develop and disseminate information to broadly communicate facts, data, and trends in a manner that raises public awareness and helps to make cause-and-effect connections. In FY2021 MCHF will design and implement information and awareness campaigns that highlight:

    - *In urban areas, the linkages between illegally produced charcoal and energy security.* This awareness campaign will also present relevant facts, figures, trends, and projections to the target audience in an effort to make the connection between illegal and unsustainable charcoal and downstream impacts, including on electricity generation and load shedding.

    - *In rural areas, the linkages between illegally produced charcoal, food security and livelihood security.* This awareness campaign will also present relevant facts, figures, trends, and projections to the target audience in an effort to make the connection between illegal and unsustainable charcoal and proximate impacts of agriculture and rural livelihoods.

2. **Advocacy Communications:** MCHF will target key individuals and groups with specific information. The team will design advocacy communications to educate and motivate action from specific individuals in a position to act, positively influencing a desired change. Advocacy will key decision- and policy-makers, including ministry leadership, parliamentarians, and traditional leaders to advocate for support for a range of topics. These will include improved regulation and enforcement of the amended Forestry Act, support for the development of Charcoal Regulations and associated guidelines, improvements to the business environment to foster private sector growth in the cleaner cooking sector (including support for more comprehensive tax relief and incentives for investment in the sector).

    As part of this effort, in FY2021 MCHF will support GoM partners to organize two strategic consultations with key policy and decision-makers, including the Honorable Minister of Energy, the Honorable Minister of Forestry and Natural Resources, members of Parliament, and chief resident magistrates. These consultations will be organized in consultation with the GoM and will coincide with the Parliament's schedule to more easily and economically reach the largest number of stakeholders. This "just-in-time" approach will also help to ensure that these focused advocacy efforts are delivered when these key stakeholders are debating and making important decisions (e.g., on budget allocations).

3. **SMBC Communications:** MCHF will implement SMBC communications in FY2021 to target specific population segments, groups, and individuals to change current cooking-related knowledge, attitudes, and behaviors. These communications campaigns will focus exclusively in the cities of Blantyre, Lilongwe, Mzuzu, and Zomba, and the team will implement discrete

campaigns to help build demand for sustainable charcoal/alternative biomass energy, improved charcoal/alternative biomass energy stoves, and LPG.

4. **Activity-Level Communications:** Clear and concise communications are important aspects of MCHF engagement with both GoM counterparts and donors. These communications will help to raise visibility, clearly articulate objectives, demonstrate results and impact, and raise awareness of specific issues. While many of these communications are "integrated" into regular activities and reporting, a number of activities described in this FY2021 AWP (e.g., the launch of the RBG Request for Applications) present unique opportunities to increase the profile of either/both donors. The team will discuss these opportunities with the MCHF USAID Contracting Officer's Representative and FCDO Project Manager, as part of the AWP review process, to identify key activities where greater profile is desired.

6.2 GRANTS MANAGEMENT

Tetra Tech received USAID approval for the MCHF Grants Manual on July 30, 2020. This detailed how Tetra Tech proposes to manage GUC in full compliance with ADS 303 and as a catalyst for innovative solutions to scale up urban adoption of FE technologies and AEs and to improve forest governance and management and scale up FFEs.

6.2.1 INTENDED USE OF GRANTS UNDER CONTRACT

Under MCHF, Tetra Tech is required to implement a GUC program that supports Activity objectives, leverages funding from non-U.S. Government (USG) resources, and builds the capacity of local partners.

Box 5. Illustrative Grantees

Private Sector: AE and FE technology related enterprises supported by MCHF performance based grants; AE , FE , and FFE related enterprises with matching/other grants supported by the mHub Growth Accelerator.

NGOs: Maeve, AEJ, Media Institute of Southern Africa, Practical Action, Self Help Africa.

Universities: Chancellor College, Malawi University of Science and Technology, Mzuzu University, University of Malawi.

MCHF will use GUC to support institutions that are well-placed to kickstart, accelerate, replicate, and scale creative solutions and best practices related to AE, FE technologies, FFE, and FLR. The team will award grants to a diverse array of local organizations, including NGOs, the private sector (large and small businesses and entrepreneurs), Malawian universities, and research institutions (Box 5), to develop and accelerate market-based solutions, leverage additional finance and investment, build technical and institutional capacity, and conduct and disseminate focused operational research. MCHF will use a flexible range of grant mechanisms that are responsive to the Activity's expected outcomes. Examples of illustrative grant activities that MCHF may fund include, but are not limited to, the following:

- Challenge grants to help develop commercially viable AE and FE technology solutions.
- PBGs to accelerate locally appropriate business models and delivery systems for AE and FE technology adoption, in which grant payments are based on the successful completion of pre-established milestones that incentivize scale. (The MCHF PBG vehicle builds on the design of the USAID SAEP Kickstarter program and may be issued as part of a more comprehensive assistance package that includes the provision of technical assistance, and linkages to FIs and/or MFIs.)

- Matching grants to organizations participating in the MCHF Growth Accelerator (business incubator). Through the subcontract with mHub, MCHF will provide technical assistance to early-stage entrepreneurs through mHub's incubator and Growth Accelerator. In addition to this technical assistance Tetra Tech expects to provide financial assistance to selected enterprises, in the form of small matching grants ($2,000–$10,000).

- Grants to local NGOs to encourage behavior change and improve awareness of AE, FE technology, forestry laws and regulations, etc.

- Grants to academic institutions to conduct research (related to PEAs, SMBC, forest governance assessments, etc.) and support the MCHF Learning Agenda.

- Micro-grants (up to $10,000) to local community-based organizations to establish or support green enterprise development, sustainable charcoal production, or forest land restoration activities.

6.2.2 GRANTS UNDER CONTRACT MANAGEMENT STRUCTURE AND APPROACH

Tetra Tech's home office contracts, grants, and procurement (CGP) team will support the field-based activity team led by the COP, who will provide the overall vision and management oversight of the GUC fund, spearhead alliances, and manage high-level relationships. The DCCS will work with the COP, DCOP, and technical leads to identify MCHF needs that the GUC fund can support and areas for which the MCHF team can provide technical capacity building for grantees. With oversight from the DCCS and support from the home office CGP team, the Grants and Subcontracts Manager will provide administrative, regulatory, and financial management of all grants and help ensure grantees have the needed systems and capacity in place.

Box 6. Kickstarter Program to Mobilize Investment

Tetra Tech proposes to adapt the "Kickstarter" model used by USAID SAEP to scale up adoption of FE cooking technology and AE solutions.

Results based financing would commence through competitively awarded fixed amount award grants (through MCHF's GUC program) with payments based on meeting sales target milestones for AE and improved cookstove technologies/products.

Access to working capital loans would take place through various financing partners, such as FDH Bank, Lion's Head, National Bank of Malawi, and Standard Bank.

Operational support would occur through technical assistance from the MCHF team focusing on specific parts of their value chain that require the most urgent assistance.

MCHF's GUC fund will follow a standardized grants cycle: 1) design; 2) competition; 3) pre-award; 4) implementation; and 5) close-out. Tetra Tech has customized its Grants Management Plan to incorporate MCHF requirements. The team will ensure that all grants are implemented in agreement with the MCHF contract terms and conditions and USAID's grants regulations, procedures, and policies (Automated Directives System [ADS] 303, Grants and Cooperative Agreements for Non-Governmental Organizations, applicable sections from the Office of Management and Budget's Uniform Guidance referencing the Code of Federal Regulations [CFR], 2 CFR 200 and 700, and Mandatory Standard Provisions, and Required as Applicable Standard Provisions for United States [US] and Non-US NGOs and Fixed Amount Awards).

Tetra Tech adheres to USAID's competition regulations, where applicable, and encourages competition in the award of grants to ensure transparency and identify and fund innovative activities that are consistent with, supportive of, and strategic to the accomplishment of the established MCHF objectives and within the contract's Performance Work Statement. Using Annual Program Statements and Requests for Applications, the team will competitively award grants whenever possible. Grants awarded on a limited or non-competitive basis will be documented with a justification to restrict eligibility in accordance with ADS 303.3.6.5. The GUC fund will use a variety of grant types (standard, simplified, fixed award amount, and in-kind) based on the dollar value of the grant, activity duration, nature of the activities, and capacity of the grantee. The team will coordinate with USAID to establish selection criteria, obtain approval for all awards, and balance geographic and community needs.

6.3 GENDER AND YOUTH INTEGRATION

Gender and youth integration are key dimensions of MCHF's work. Access, control, perception, and use of natural resources are fundamentally affected by gender. Gender can also be a critical factor in decision-making (including the willingness to adopt new technologies). MCHF will employ a variety of tactics to integrate gender and youth concerns and issues across MCHF objectives and activities. Through work plan development, the team has identified gender-/youth-specific opportunities, as well as activities that might be unintentionally gender exclusive, with the goal to mitigate access problems by women or youth. MCHF will revisit these through the Activity's CLA approach, as part of annual pause-and-reflect sessions, providing an opportunity to discuss actual participation and engagement from women and youth and consider redesign if participation is low.

In line with USAID's Gender Equality and Female Empowerment Policy, MCHF's AMELP includes a standard USAID gender indicator (GNDR 2, "Percent of female participants in USG-assisted programs designed to increase access to productive economic resources [assets, credit, income, or employment]") as well as sex-disaggregated indicators that will allow MCHF to conduct annual gender analyses to determine whether activity interventions have had differential impacts on women and men. In an effort to better track and report economic empowerment of youth, MCHF has added an indicator to track the number of youth-led enterprises supported with USG assistance. Data will be disaggregated and will allow results to feed directly into the Mission's CDCS Indicator 2.1-2 ("Number of youth-led microenterprises created with USG assistance").

The iterative process to develop and finalize the MCHF AMELP helped to identify a gap in the earlier draft MCHF indicator framework—the lack of any Activity indicators focused directly on "youth," a USAID/Malawi CDCS overarching theme, and mapped to DO2 ("Youth lead healthy, informed, and productive lives"). In response, MCHF worked with USAID to develop an additional project indicator ("Number of youth-led enterprises supported with USG assistance"), which is structured to feed directly into a USAID/Malawi indicator.

6.4 ENVIRONMENTAL COMPLIANCE

Tetra Tech and its partners recognize that environmental compliance is critical to the sustainability of MCHF interventions and results. To this end, and in full compliance with the prevailing USAID/Malawi Sustainable Economic Growth Office IEE (Implementation Start/End 2018-2026) and the terms and conditions of the MCHF contract, Tetra Tech has developed and submitted an EMMP that USAID approved on May 21, 2020. The EMMP screens activities against the governing IEE[3] and

[3] The IEE for the USAID/Malawi Sustainable Livelihoods Project, covering 2018–2026, expires on January 23, 2026.

is mapped to IEE intervention areas and sub-categories, applicable environmental threshold determinations, and conditions. MCHF will implement this FY2021 AWP in compliance with the approved EMMP.

7.0 APPENDICES

APPENDIX A: KEY PROGRAM INDICATORS AND TARGETS

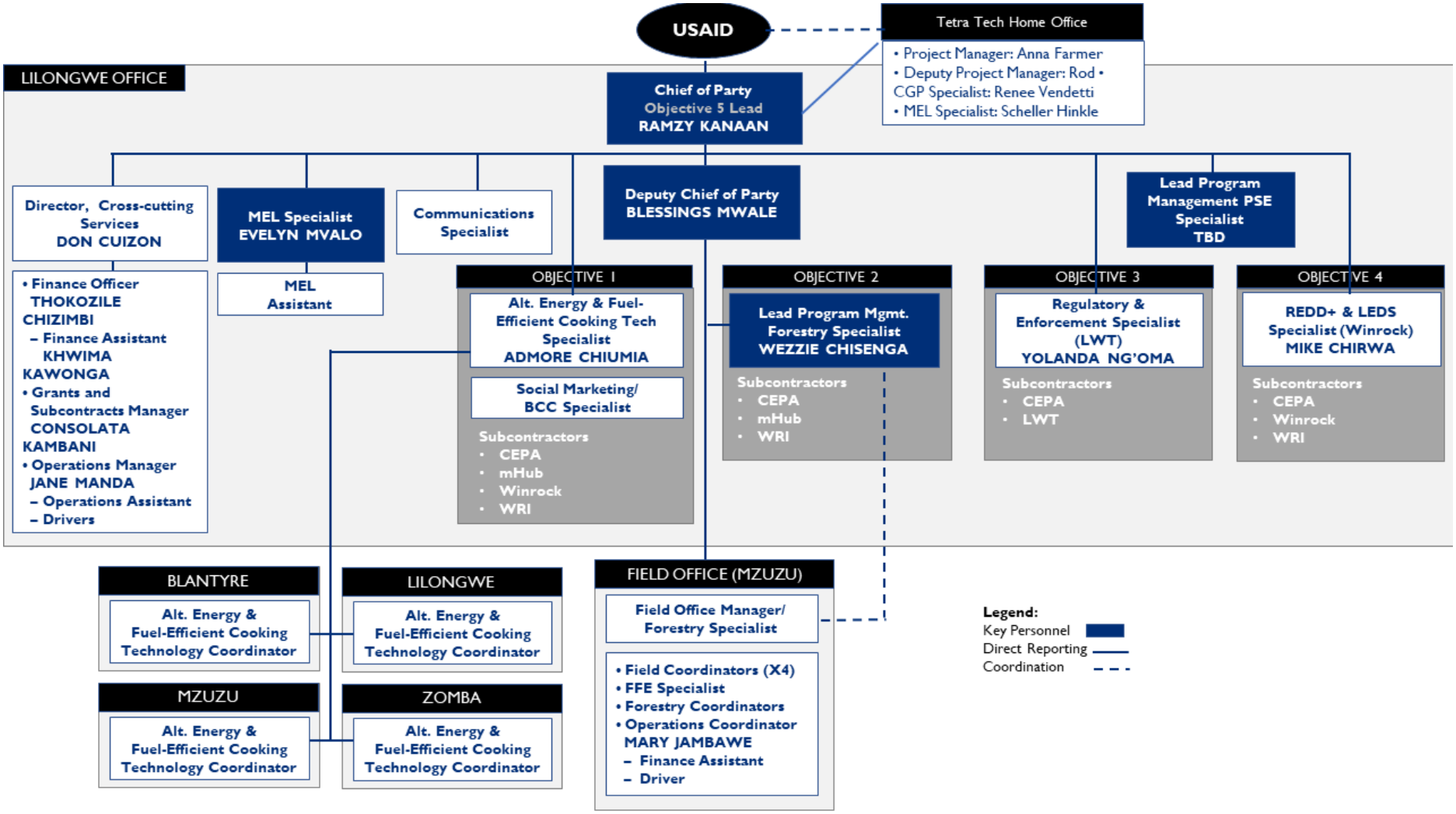
Project Indicator Number	Performance Indicator (Type of Indicator) Frequency (A=annual, Q quarter)	Disaggregates	Source/Data Collection Methodology	Baseline	FY20 Target	FY21 Target	FY22 Target	FY23 Target	FY24 Target	LOA Target
GOAL: Promote sustainable forest management of selected landscapes and promote sustainable energy options in Malawi										
1	Greenhouse gas (GHG) emissions, estimated in metric tons of CO_2 equivalent, reduced, sequestered, or avoided through sustainable landscapes activities supported by USG assistance *(EG 13-6, Impact)* **A**	Emissions and GHG removal-producing activity type	Calculations based on activity records using Inter-governmental Panel on Climate Change guidelines	0	0	93,201	180,572	284,937	384,086	942,796
2	Projected GHG emissions reduced or avoided from adopted laws, policies, regulations, or technologies related to sustainable landscapes as supported by USG assistance *(EG 13-7, Impact)* **A**	Years 1 to 5 Years 6 to 10 Years 7 to 15	AFOLU Carbon Calculator or WRI Policy Action Standard (TBD)	0	0	TBD	TBD	TBD	TBD	TBD
3 Tied to Fee	Number of hectares of forested land in targeted areas showing reduced deforestation based on the GoM deforestation estimation *(Impact)* **A (FY22-FY24)**	Landscape	GoM FREL methods applied by MCHF to targeted landscapes	TBD	-	-	58,000	83,000	124,000	265,000
OBJ 1: Alternative energy sources and efficient cooking technologies adopted to reduce unsustainable wood fuel demand										
4	Number of improved technology products that are commercially viable and provide an alternative to illegal charcoal promoted in Malawi as a result of MCHF assistance *(Output)* **A**	Technology type (fuel efficiency or alternative fuel) and milestone	MCHF checklist, firm data, documentation of products	0	0	2	3	3	2	10
IR 1.1: Enhanced consumer demand for alternative energy sources and efficient cooking technologies in priority urban and rural areas										
5	Percent of households in/around targeted forest reserves that have adopted efficient cooking technologies *(Outcome)* **Biennial**	Landscape	Survey every other year	TBD	0	-	25%	-	75%	75%

Project Indicator Number	Performance Indicator (Type of Indicator) Frequency (A=annual, Q quarter)	Disaggregates	Source/Data Collection Methodology	Baseline	FY20 Target	FY21 Target	FY22 Target	FY23 Target	FY24 Target	LOA Target
6 Tied to Fee	Percent of households in urban areas that have adopted alternative cooking energy sources and/or efficient cooking technologies *(Outcome)* **A** **Biennial**	Urban area	Survey every other year plus estimates in gap years based on stove sales	TBD	0	-	8%	-	30%	30%
7	Percent of sampled target audience reporting exposure to messages on alternative energy sources and fuel-efficient technologies on radio, TV, electronic platforms, or in print (Outcome) **Biennial**	Urban/Rural	Survey every other year	TBD	0	-	25%	-	75%	75%
IR 1.2: Improved supply of alternative energy and efficient cooking technologies and products										
8	Number of firms receiving USG-funded technical assistance for improving business performance *(EG 5.2-1, Output)* **A**	Formal/informal; new/continuing	Activity records	0	0	12	18	20	5	55
9	Increase in annual sales of firms doing business in alternative energy options and efficient cooking technologies *(Outcome)* **A**	Geography	Secondary data from distributors and firms	0	$0K	$40K	$410K	$450K	$600K	$1.5M
IR 1.3: Improved production and market penetration of sustainable charcoal										
10	Number of tons of sustainable charcoal or alternative biomass energy produced *(Outcome)* **A**	Production source	Partner records	0	0	0	0	4,000	7,000	11,000
OBJ 2: Local delivery of forestry services and sustainable use of forestry resources in targeted areas improved										
IR 2.1: Improved forest governance systems in targeted areas										
11	Number of hectares of degraded landscapes under improved natural resources management as a result of USG assistance *(Outcome)* **A**	Landscape	Activity records, grantee reports, site visits, FLR plans	0	0	0	3,500	5,000	7,500	16,000
IR 2.2: Enhanced natural resource-based enterprises and livelihoods in targeted areas										
12	Number of forest-friendly enterprises with documented increases in sales *(Outcome)* **A**	Formal/informal	Activity, subcontractor, grantee records,	0	0	0	4	10	6	20

Project Indicator Number	Performance Indicator (Type of Indicator) Frequency (A=annual, Q quarter)	Disaggregates	Source/Data Collection Methodology	Baseline	FY20 Target	FY21 Target	FY22 Target	FY23 Target	FY24 Target	LOA Target
		Men/women/ youth	qualitative narrative covering enterprise, connection to benefit							
13	Number of people receiving livelihood co-benefits (monetary or nonmonetary) associated with implementation of USG sustainable landscape activities *(EG 13-5, Outcome)* **A**	Sex	Activity records, Consumer Market Research and Surveys	0	0	5,000	15,000	20,000	30,000	70,000
OBJ 3: Regulatory and enforcement framework to support sustainable wood fuel production and use strengthened										
IR 3.1: Strengthened regulatory framework on charcoal production and use										
14	Number of laws, policies, regulations, or standards addressing sustainable landscapes formally proposed, adopted, or implemented as supported by USG assistance *(EG 13-3, Output or Outcome)* **Q**	National/ subnational Proposed/ implemented/ adopted	Copy of document, rationale narrative	TBD	4	11	14	11	10	50
IR 3.2: Improved capacity to enforce laws on illegal charcoal production and illegal trade in forest products										
15 Tied to Fee	Percent change in annual conviction rate for illegal charcoal and other forestry crime activities *(Outcome)* **A**	Charcoal/other Custodial sentence/fine	Court records	TBD	0%	5%	15%	30%	50%	50%
IR 3.3: Improved advocacy and public awareness on forestry issues										
16	Number of organizations that have advanced their advocacy capacity **A**	Level/milestone	Advocacy Assessment	TBD	0	0	2	4	4	10
OBJ 4: Government of Malawi's implementation capacity of low emissions development in REDD+ and/or other land use increased										
IR 4.1: Improved GoM capacity to utilize systems, tools, and technologies to manage and monitor forest landscapes										
17	Number of institutions with improved capacities to address sustainable landscapes issues as supported by USG assistance *(EG 13-2, Output)* **Q**	National/ subnational/other	Activity records	0	0	7	13	20	10	50

Project Indicator Number	Performance Indicator (Type of Indicator) Frequency (A=annual, Q quarter)	Disaggregates	Source/Data Collection Methodology	Baseline	FY20 Target	FY21 Target	FY22 Target	FY23 Target	FY24 Target	LOA Target
IR 4.2: Institutionalized data management system for forest landscape management and monitoring										
18	Number of discrete approaches developed and implemented for forest landscape management and monitoring *(Outcome)* **Q**	Approach and milestone	Activity records, participant list, DoF notes	0	0	1	1	1	1	4
IR 4.3: Improved capacity of forestry officials and communities to manage forest lands										
19	Number of people trained in sustainable landscapes supported by USG assistance *(EG 13-1, Output)* **Q**	Sex	Training records (curriculum, attendance records)	0	0	700	1,550	1,750	1,000	5,000
OBJ 5: Interventions leveraged with other USAID and development partners resources										
IR 5.1: Discrete integration opportunities successfully implemented with USAID and other development partners activities										
20	Number of discrete integration opportunities successfully implemented with USAID and other development partner activities *(Output)* **Q**	Public/private	Activity and partner records	0	3	8	9	8	2	30
IR 5.2: Mobilized investment for sustainable landscapes										
21	Amount of investment mobilized (in USD) for sustainable landscapes as supported by USG assistance *(EG 13-4, Outcome)* **Q**	Public/private; domestic/ international	Financial documentation and rationale report	0	0	$150K	$2.2M	$4M	$3.65M	$10M
Crosscutting										
22	Percent of female participants in USG-assisted programs designed to increase access to productive economic resources (assets, credit, income, or employment) *(GNDR-2, Output)* **A**	Numerator, dominator	Activity records	N/A	N/A	50%	50%	50%	50%	50%
23	Number of youth-led enterprises supported with USG assistance *(USAID/Malawi CDCS, Outcome)*	Size (e.g., micro, small, medium…), stage (e.g., creation, ongoing, etc.), and age band	Activity records	N/A	0	3	5	4	3	15

APPENDIX B: ORGANIZATIONAL CHART



APPENDIX C: SUB-PARTNERS

Partner	Local/ International	Cumulative Cost/FY20 Funding Level	Geographic Area	Activity Related Role
Centre for Environmental Policy and Advocacy	Local	$72,798	In all MCHF sites	Communications and advocacy
Lilongwe Wildlife Trust	Local	$273,129	In all MCHF sites	Primarily responsible for Objective 3
mHub	Local	$55,846	In all MCHF sites	Supporting PSE for Objectives 1 and 2
Kadale Consultants	Local	$71,329	In all MCHF sites	Conducting urban cooking energy CMR and baseline survey under Objective 1
Winrock International	International	$365,970	In all MCHF sites	Primarily responsible for Objective 4 and supporting Objective 1
World Resources Institute	International	$148,565	In all MCHF sites	Targeted short-term assistance to support implementation and scaling of restoration activities

APPENDIX D: ESTIMATED BUDGET BY OBJECTIVE FOR FY2021

Objective	Description	FY2021 Budget
1	Alternative energy sources and efficient cooking technologies adopted to reduce unsustainable wood fuel demand	$891,192
2	Local delivery of forestry services and sustainable use of forestry resources in targeted areas improved	$1,005,759
3	Regulatory, and enforcement framework to support sustainable wood fuel production and use strengthened	$460,445
4	Government of Malawi's implementation capacity of low emissions development in REDD+ and/or other Land Use increased	$397,491
5	Interventions leveraged with other USAID and development partners resources.	$235,985
	TOTAL	$2,990,872

APPENDIX E: GEOGRAPHIC COVERAGE

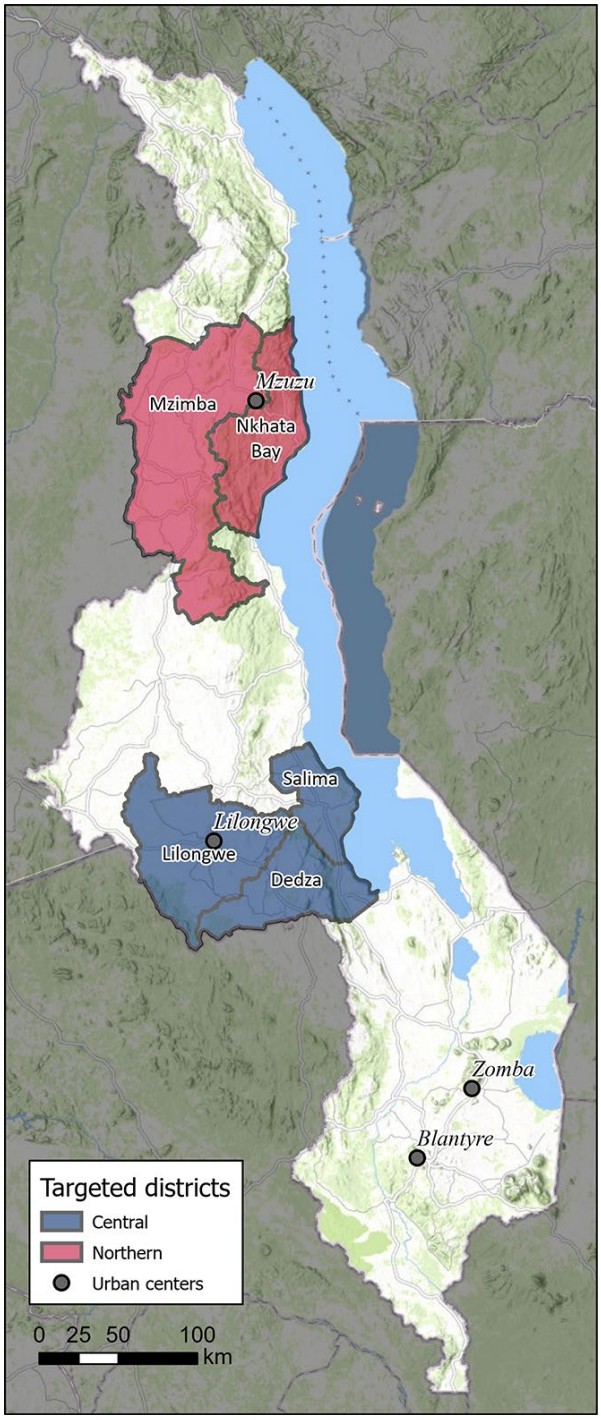


FIGURE 4. NATIONAL MAP

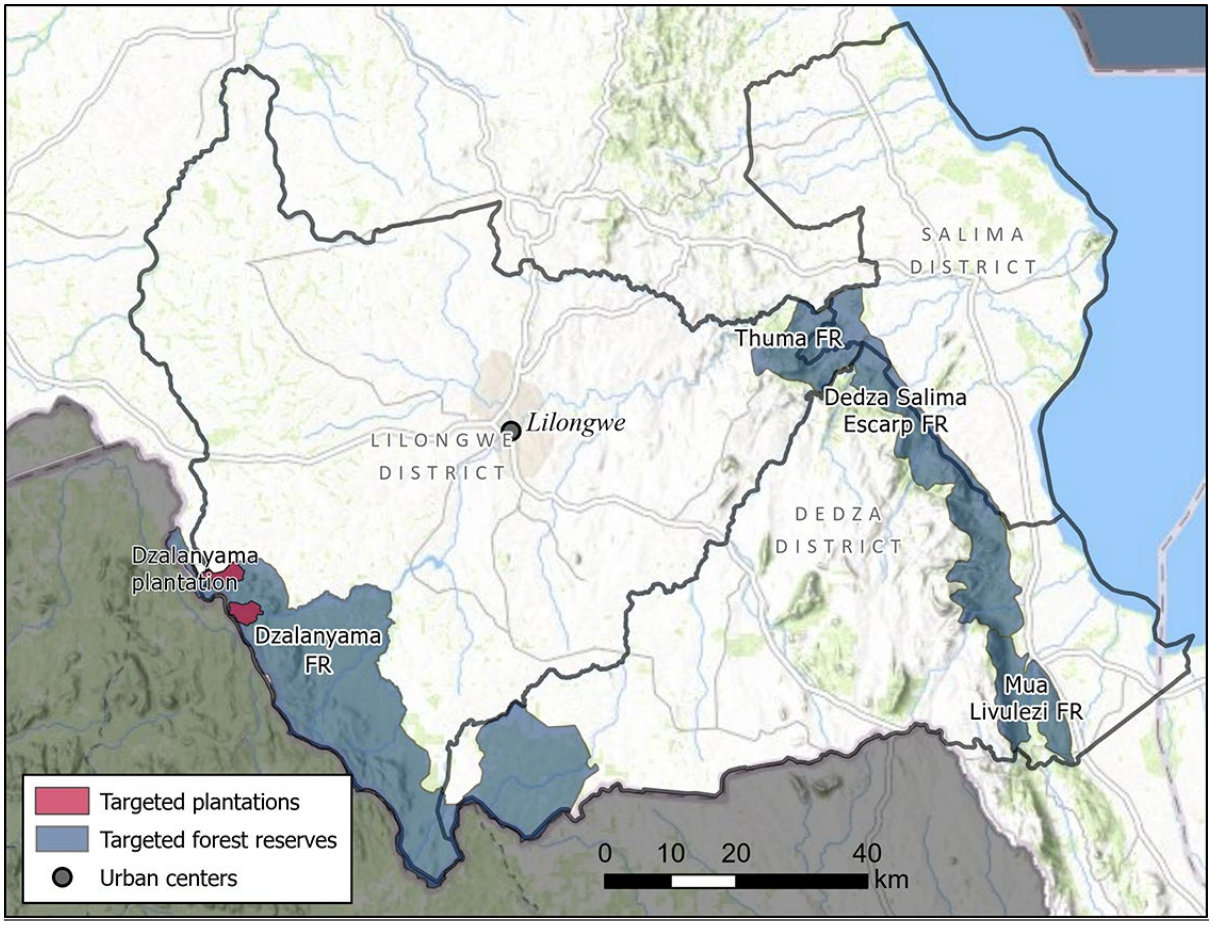


FIGURE 5. CENTRAL LANDSCAPE

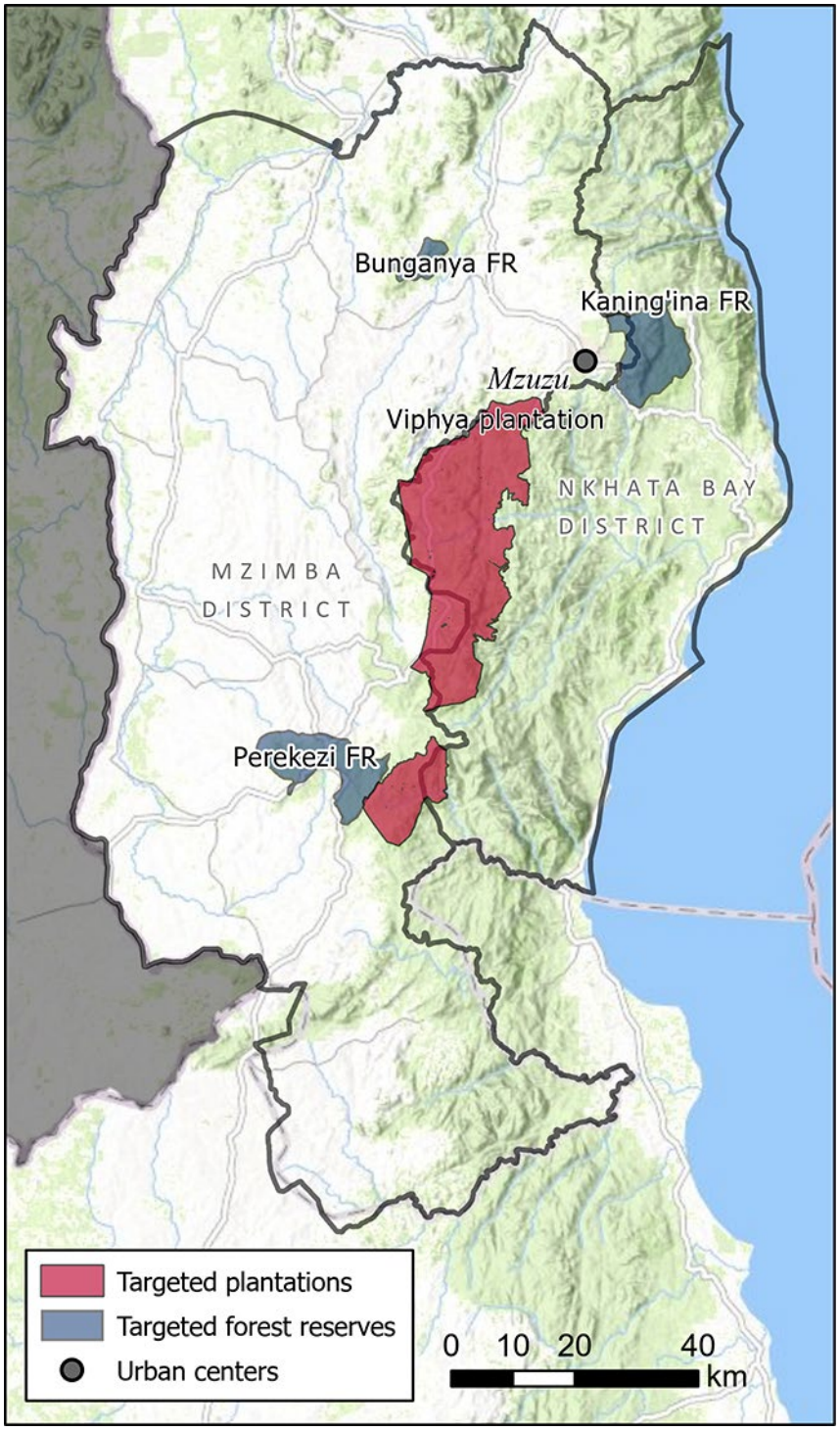


FIGURE 6. NORTHERN LANDSCAPE

APPENDIX F: INTERNATIONAL TRAVEL

Name/Title	Role	Organization	Month	FY2021 Quarter
Ramzy Kanaan and family	COP and dependents return	Tetra Tech	October 2020	1
John Fay	STTA – PBG/PSE	Tetra Tech	October 2020	1
Don Cuizon	DCCS mobilization	Tetra Tech	December 2020	1
Kevin Brown	STTA – Obj 4	Winrock	January 2021	2
Tim Holland	STTA – Obj. 2	Tetra Tech	January 2021	2
Ashley Sniatecki	Grants Management	Tetra Tech	February 2021	2
Rachel Alvarez-Reyes	STTA – Charcoal PEA	Tetra Tech	February 2021	2
Scott Taylor	STTA – Charcoal PEA	Tetra Tech	February 2021	2
Blanca Bernal	STTA – Obj 4	Winrock	March 2021	2
Meseret Shilferaw	STTA – Obj. 2	WRI	March 2021	2
Rebecca Butterfield	STTA – CLA	Tetra Tech	March 2021	2
Rachel Alvarez-Reyes	STTA – Charcoal PEA	Tetra Tech	April 2021	3
Bikash Pandey	STTA – Obj. 2	Winrock	June 2021	3
Kevin Brown	STTA – Obj. 4	Winrock	June 2021	3
Blanca Bernal	STTA – Obj. 4	Winrock	June 2021	3
Bikash Pandey	STTA – Obj. 2	Winrock	June 2021	3
Ramzy Kanaan and family	Home leave	Tetra Tech	June–July 2021	3/4
Aaron Minnick	STTA – Obj. 2	WRI	July 2021	4
Tim Holland	STTA – Obj. 2; FY 2022 annual work planning	Tetra Tech	August 2021	4
Kevin Brown	STTA – Obj. 4; FY 2022 annual work planning	Winrock	August 2021	4
Meseret Shilferaw	STTA – Obj. 2; FY 2022 annual work planning	WRI	August 2021	4
Rebecca Butterfield	STTA – MEL; FY2022 annual work planning	Tetra Tech	August 2021	4
Ashley Sniatecki	STTA – Grants	Tetra Tech	September 2021	4

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