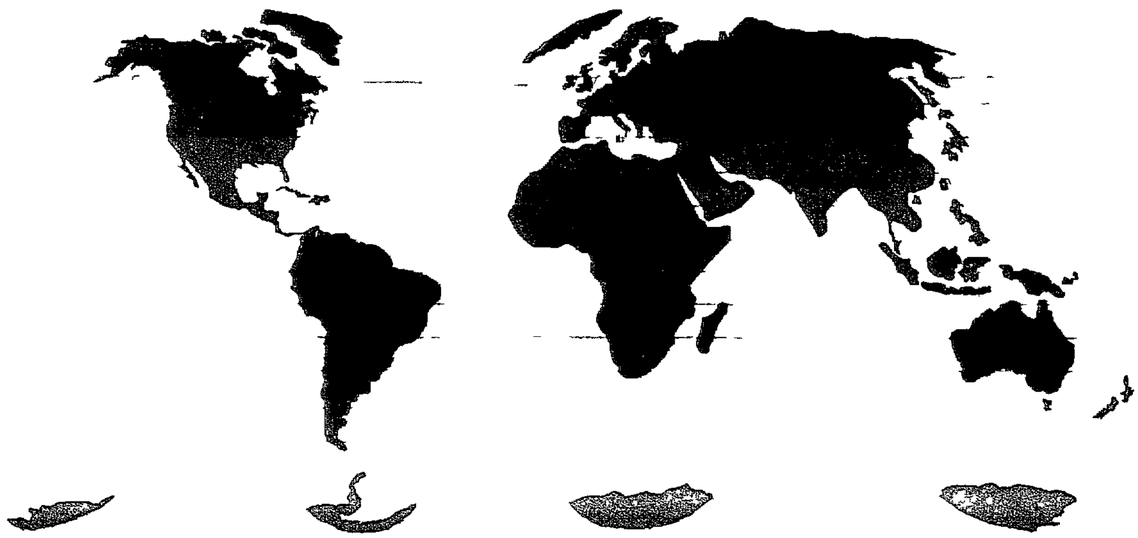
BARENTS
GROUP LLC



Egypt
Public Finance Administration Project
Final Report

December 1998

PD-ABR-048

BARENTS
GROUP • LLC

EGYPT PUBLIC FINANCE ADMINISTRATION PROJECT FINAL REPORT

A USAID-FUNDED PROJECT TO SUPPORT REFORM AND MODERNIZATION OF EGYPT'S TAX SYSTEM

CONTRACT NO 293-C-00-89-00096-00

PREPARED FOR

UNITED STATES AGENCY FOR INTERNATIONAL DEVELOPMENT
MISSION TO EGYPT
OFFICE OF ECONOMIC GROWTH
Project No 263-0182

PREPARED BY

BARENTS GROUP LLC
2001 M STREET, N W
WASHINGTON, DC 20036

December 1998

B

TABLE OF CONTENTS

E/

EXECUTIVE SUMMARY

INTRODUCTION

The Public Finance Administration Project (PFAP) began in October 1989 and extended over a nine-year period through November 1998 The project was designed to support reform and modernization of Egypt's tax system The project has, throughout its tenure, received favorable reviews from all who have been associated with it, either directly or indirectly Among the major accomplishments associated with the project

- Major income and sales tax reforms were proposed and implemented by the Government of Egypt (GoE),
- Improved administrative processes and procedures were put in place, operating from improved organization structures,
- Automation of the departments advanced considerably,
- High quality training was institutionalized, and
- Economic Research Departments were established and trained

Technical assistance related to income and sales taxation which is the subject of this final report, was provided by Barents Group LLC, a wholly-owned subsidiary of KPMG-US Technical assistance related to customs duties was provided separately by the US Customs Service and was limited to the first 30 months of the project The scope of the tax reform and modernization project was comprehensive and included policy reform administrative reform, computerization, and training

In the years immediately preceding implementation of the project, the Egyptian economy had performed relatively poorly Economic growth had fallen sharply to levels lower than population growth, inflation was relatively high and increasing, and the balance of payments deficit had increased to a very high level Egypt's debt to GDP ratio was one of the highest in the world and the consolidated budget deficit had reached 23 percent of GDP

The fiscal situation in Egypt was a contributor to the country's economic problems Tax revenues had fallen from almost 25 percent at the beginning of the decade to only about 13 percent of GDP by the late 1980's Many factors contributed to this decline there was excessive reliance on taxes directly linked to the external sector, the tax system was not as buoyant or elastic as it needed to be, the tax structure was unnecessarily complex, creating both economic distortions and high costs of administration and compliance, and tax evasion was a major problem Structural reforms of the tax system were clearly needed, but these reforms needed to be accompanied by improved administration

The PFAP was designed to provide technical and procurement support to the Ministry of Finance and its tax departments as it moved forward with a broad-based reform and modernization program The objectives of this program included improved revenue productivity, improved tax equity, a more neutral tax system that created fewer economic distortions, and improved administration of a more simplified system It was expected that these reforms would be coordinated with, and support other reforms that the Government of Egypt was pursuing at the same time, including privatization, financial sector reform, and trade reform

PROJECT ACTIVITIES AND ACCOMPLISHMENTS

The activities and accomplishments of the PFAP are summarized below under six separate headings, each of which is a separate chapter in this final report They are introduction of policy reforms, analyzing policy reforms, administrative reforms, computerizing the departments, training, and local public finance

INTRODUCTION OF POLICY REFORMS

The project team assisted the GoE in introducing structural reforms to the tax system throughout the course of the project The Egyptian tax system has, as a result, a much improved structure over that which prevailed at the outset of the project

- *General Sales Tax* In May 1991, the GoE introduced the General Sales Tax (GST) to replace the previously existing Consumption Tax The new GST was applied to imports and manufactured goods, with provision in the legislation for the tax to be expanded to the wholesale and retail level at a later time (an action for which extensive planning has since been made by the Sales Tax Department) The GST has proven to be highly revenue productive, initially doubling revenues previously generated by the Consumption Tax Moreover, in contrast to the Consumption Tax, the GST has proven to be a much more elastic revenue source The GST has multiple rates and either exempts basic necessities or taxes them at a preferential rate, making it a less regressive revenue source than its predecessor It is also a more neutral revenue source, both because it taxes a broader base of goods and because the cascading of indirect taxes is less under the GST
- *Global Income Tax* In December 1993, the GoE enacted the Global Income Tax to replace the then-existing schedular taxes applicable to different income sources and the overlapping General Income Tax A major resource to the Minister of Finance in developing this program was the project team's extensive report "A Comprehensive Tax Reform Program for Egypt," which served as a blueprint for the full scope of tax and administrative reforms that were needed in Egypt While the legislation did not go as far as had been hoped in addressing income tax issues, it did represent a major positive step forward in income taxation in Egypt Under the new law (i) all sources of income were consolidated under a single tax structure, (ii) family burden allowances were doubled, thereby eliminating tax for about 3 million low-income taxpayers, and (iii) administration was significantly eased through greater reliance on withholding and through removal of many former taxpayers from the tax rolls The major reform did not, however, address corporate taxation, nor did it significantly broaden the income tax base through elimination of deductions and credits that could usefully be eliminated

- *Other Income Tax Reforms* In addition to the two major reforms outlined above the GoE has continued to introduce structural reforms to improve sales and income taxation On three separate occasions in the 1992 to 1994 period, the GST base was expanded to include additional services In 1992, the stamp tax on capital of corporations registered on the stock exchange was repealed, and in 1995 a similar stamp tax on share holdings and share transactions was abolished In 1996 the ineffective inheritance tax was eliminated In 1997, depreciation classifications were significantly simplified, reducing the number of asset categories from 50 to 5 Also in 1997, the top marginal rates on self-employed businesses and professions were reduced from 48 percent to 40 percent and family burden allowances were further increased In 1998, to address a major problem with the tax treatment of interest income, the deduction allowable for interest expense was essentially limited to the extent to which the borrowing business has interest receipts in excess of interest income

While much structural reform has been accomplished by the GoE, with active support from the PFAP throughout this period, further reforms remain desirable These reforms include expansion of the GST to the wholesale and retail level, which has been anticipated for some time, corporate tax reform, which the GoE has indicated is a priority for future reform, and broadening of the tax base through elimination of credits and deductions that narrow the tax base and create distortions in economic decision making

ANALYZING POLICY REFORMS

The introduction of policy reforms in any country should be accompanied by sound empirical analyses of the effects of these reforms, because their impacts on individuals and businesses can be widespread Accordingly, under the PFAP scope of work, policy analysis was a priority area of work During the first two years of the PFAP, separate analytic models were developed to analyze the effects of sales and income tax reforms

- *The Indirect Tax Model* This model utilizes tax and economic data from a variety of sources, published and unpublished At the center of the model is a detailed input-output table of the Egyptian economy, which provides the basis for distinguishing between goods that are taxed at different rates and for measuring the amounts of credits that can be claimed for the purchase of inputs The model was completed in the spring of 1990 and then modified and updated over the years, it has been used extensively to analyze the revenue and distributional effects of alternative sales tax reforms

- *Income Tax Models* Several different "microsimulation" models were developed to analyze the effects of income tax reform, including models for corporate income, wages and salaries, and commercial and industrial profits taxes Under this modeling approach, the tax liability of each individual or business in the data base is calculated, effectively replicating the process that the taxpayer would following in first calculating taxable income and then calculating tax liability consistent with that income The database that was used in these models was developed using data collected by a team of twelve Tax Department officers over a period of eighteen months and extrapolated to 1992 by the Barents project team The models were used to analyze the revenue and distributional effects of the Global Income Tax, and of prior reform alternatives that were considered before and since enactment of this reform

The completed models were transferred to the newly established economic research units of the two departments These units were created by the departments during the course of the project and benefitted from extensive project training over a period of several years, thus institutionalizing the analytic capability that had been used for the analysis of policy reforms during the initial years of the project

ADMINISTRATIVE REFORMS

It is the effectiveness of administration that ultimately determines whether the tax system is successful in achieving its policy goals Registrant identification, assessment of tax, collection, and audit are all critical to success of any tax regime, and it is important that they be accomplished effectively and at relatively low cost to all concerned parties Accordingly extensive technical assistance in this area was provided to both the Sales Tax Department and the Tax Department during the course of this project The end result was the successful "overhaul" of the entire Sales Tax Department administrative structure and significant reforms to the structure of the Tax Department

The Sales Tax Department was shifting to an entirely new type of tax beginning in May 1991, one based on financial records rather than physical quantities It was, at the same time, shifting from a manual system to an automated system The project team provided extensive support, both before and after the implementation of the GST, to support the Department's efforts to introduce a new organizational structure and an entirely new system of tax administration During the course of the project, and under the strong leadership of Commissioner Mahmoud Ali, a new system of registration was introduced, new forms were designed, a new organizational structure was put in place, and new processes and procedures were developed and implemented to collect and audit taxes more effectively The Department today bears no resemblance to that which existed at the outset of the project

In the case of the much larger and older Tax Department, the project team served as an advisor to the Commissioner and prepared materials and supporting documents in support of the implementation of the Global Income Tax Assistance was provided in every area of tax administration, including organization, procedures, forms, taxpayer assistance, audits, and tax collection Once the Global Income Tax was implemented, the project team continued to provide input and support to the Commissioner in selected areas, most notably organizational reform and improved auditing and collection

COMPUTERIZING THE DEPARTMENTS

Extensive assistance was provided in support of automating both the Sales Tax Department and the Tax Department This assistance included (i) technical support from highly experienced information technology professionals, (ii) procurement of extensive computer hardware and software, and (iii) extensive training

In the case of the Sales Tax Department, the project team took the lead in developing a sophisticated General Sales Tax Computerization System (GSTACS) that supported the full range of tax administration functions including taxpayer registration, payment, and audit The system, which utilizes a unique taxpayer identification numbering system developed by the project team, was installed in each of the approximately 60 district offices in the Department, which were linked to a Central Processing Center in Cairo The development and implementation of this system represented a major challenge because, at the outset of the project, the Department had no extant computerization capability Accordingly, in addition to the major task of developing the GSTACS system, the effort required extensive training of both technology professionals in the Department and tax administration professionals accustomed to working in a non-automated environment The effort was highly successful, and the Department has demonstrated its ability to maintain and upgrade the GSTACS system independently

The Tax Department initiated computerization operations in 1980 and, in contrast to the Sales Tax Department, had a Central Department of ADP (automated data processing) at the time the PFAP was initiated For this reason, the project team played more of an advisory role in supporting the Tax Department's ADP unit, rather than the hands on role that it played with the Sales Tax Department Support was provided to the successful development a unique taxpayer identification system (the Tax Department and the Customs Department ultimately adopted the same numbering system being used by the Sales Tax Department, which represents a major advantage in information sharing and tax compliance), the creation of a master file of taxpayer records, a system of returns and payments processing, and a system for tracking the inventory of outstanding cases These efforts were all integrated within a long-term system plan that was developed by the Department with considerable input from the project team By the close of the project, the Department had tax processing systems operational in more than 215 district offices, all of which had been equipped with computer hardware and software procured by USAID funds under the PFAP

TRAINING

From the outset, training was appropriately identified as a separate and important project task This function took on many different facets procurement of modern training equipment to furnish new training facilities, extensive support to both departments in organizing the training function, course design and development, specialized classroom training by Resident and short-term expatriate advisors, language training and support, and very valuable overseas training In addition, extensive training was associated with the specialized efforts of the project team related to computerization of the departments and the creation of economic research units The training efforts were critical to institutionalizing the new processes and procedures, and the use of modern computer technology Much of the success of the project is linked to the priority given to training throughout its tenure

LOCAL PUBLIC FINANCE

For a period of 18 months, the PFAP performed a study of local government finance in Egypt, in response to indications from the Government that it might be receptive to local government financial reform The study reviewed the experiences of government decentralization in other countries, developed a detailed analysis of the current structure of local government finance in Egypt, and assessed the potential for property taxation as a dedicated revenue source for local governments in Egypt At the end of the 18-month effort, the project team concluded from its study that government decentralization was not an immediate priority of the GoE On the basis of this conclusion, USAID ended this component of the project's work

CONCLUDING PERSPECTIVES

As noted at the outset, the PFAP has been highly successful in supporting the reform and modernization of the Egyptian tax system This success, in turn has contributed significantly to improved fiscal performance in Egypt, with the budget deficit declining to only 1 percent of GDP at the close of the project This in turn contributed significantly to dramatic improvement in the Egyptian economy, including a drop in inflation from 15 percent in 1990/91 to only 4 percent in 1997/98, and strong economic growth, which has averaged over 4 5 percent per annum over the last five years

There are a number of factors that contributed to the project s success They included a comprehensive approach to tax reform that included both policy and administrative reform, strong project management and oversight from USAID's Project Officer, Ms Iman Aly El Shayeb who supported redirection of project activities at key times in the execution of the project, strong leadership from the GoE Ministers' of Finance and from the tax department Commissioners, particularly Commissioner Mahmoud Ali from the Sales Tax Department, access to some of the top tax policy and tax administration professionals in the world, many of whom contributed to this project over the full duration of the project, including some as resident advisors, and a strong, capable local project staff

INTRODUCTION

This report presents a comprehensive summary of the technical assistance provided to the Government of Egypt's Ministry of Finance by KPMG's Barents Group[1] under the Public Finance Administration Project This Project has been funded by the U S Agency for International Development under Contract No 263-00-89-00096-00

USAID designed the Public Finance Administration Project (PFAP) to support the reform and modernization of Egypt's tax system The project began in October 1989 and extended over a period of nine years, through November 1998 The project was intended to be comprehensive in a number of important ways

- First, it addressed the full range of direct and indirect taxes levied by the Government of Egypt and administered by the Ministry of Finance
- Second, it combined reform of the tax structure with reform of the system of tax administration, including introduction of computerized systems
- Finally, it recognized that fiscal policy and administration was but one of several areas in which major reforms were underway in Egypt, others included greater reliance on market prices for resource allocation, privatization, financial sector reform, and exchange rate reform The PFAP was intended to complement and reinforce these other reforms

The Project was, from its very earliest days, a team effort, with Barents Group working in partnership with the Ministry of Finance and USAID to achieve the objectives established for the Project The Project enjoyed the support of the highest officials within the Ministry of Finance, including the active involvement from the outset of Dr Mohamed El Razaz, who was then Minister of Finance, and worked closely with USAID officials, most notably Project Officer Ms Iman Aly El Shayeb, in the planning and implementation of the Project

The accomplishments achieved by the Project and detailed in this report reflect a long period of close and mutual cooperation between the Project Team, a dedicated group of Egyptian officials, and strong and continuing support from the Project Officer and others at USAID From the beginning, USAID recognized that if the Project was to succeed, the Ministry would need to feel comfortable that the Project team was not simply advocating a set of policy reforms recommended by the US Government, but that it was serving as advisors to the Ministry and helping to develop a set of policy reforms that best suited the Egyptian context

In the period from 1989 through 1995, tax reform initiatives were led directly by Minister Razaz, beginning in 1996, they were led directly by his successor, Minister Mohei El Din El Gharib The leadership from within both the Sales Tax Department and the Tax Department are to be particularly commended for their efforts in implementing policy and administrative reforms

[1] The contract was initially with KPMG Peat Marwick and the project was staffed and directed by KPMG's Policy Economics Group, a unit centered in Washington DC In November 1994 this group was established as a separate KPMG Company and renamed the Barents Group LLC In this report all references are to Barents Group

Commissioner Mohamed Mahmoud Ali, and his predecessor Mr Ahmed Abd El Radi Ismail, were instrumental in introducing a new General Sales Tax in Egypt and developing a modernized department to administer it Similarly, Commissioner Fakhri Saad El Din Awad, and his predecessors Mr Fathi Abd El Baki and Mr Usama Abd El Sadiq deserve credit for their leadership of reform and modernization of the Tax Department over the course of this project All gave unselfishly of their time and department resources in support of the Project

The Government of Egypt also provided extensive support to the Project through the provision of suitable working quarters, access to senior tax officials throughout the Project, and execution of an extensive data collection effort by teams of tax officers The Government also supported the collection of background information and data from agencies outside the Ministry of Finance, such as the Central Agency for Public Mobilization and Statistics (CAPMAS)

In support of this large and important project, Barents Group in turn was able to bring to this Project some of the leading and most experienced public finance economists, policy analysts, tax administrators, and information technology professionals in the world Some of these individuals served in a resident advisor capacity over the course of the project, while others served as short-term advisors These expatriate advisors were supported by an outstanding team of local Egyptian professionals and support staff A listing of Project Team participants, and their substantive areas of work on the Project, are presented in Appendix A of this report

This report is organized into an Executive Summary, nine separate chapters, and three appendices The content of these chapters and appendices is as outlined below

Chapters

I	Project Scope of Work
II	The Economic and Fiscal Setting
III	Introduction of Policy Reforms
IV	Analyzing Policy Reforms
V	Administrative Reforms
VI	Computerizing the Departments
VII	Training
VIII	Local Public Finance
IX	Concluding Perspectives on the Project

Addenda

A	Project Personnel
B	Key Government of Egypt Personnel
C	Listing of Project Papers

The report, by design, focuses primarily on the work of the short- and long-term Barents advisors over the 1989-1998 period In effect, it attempts to document fully the work that was accomplished with the funds provided by USAID to support tax reform and modernization in Egypt Notwithstanding this focus of the report, it is important to emphasize that the work performed by the Barents advisors is but the "apex of the pyramid" of the totality of work performed In virtually all areas of reform and modernization, the work of Egyptian policy officials and staff in the Ministry of Finance, the Tax Department, and the Sales Tax Department greatly exceeded that of the Barents advisors Accordingly, credit for successes in introducing reforms and modernization belong largely to them, even if they are not well documented in this report

I PROJECT SCOPE OF WORK

OVERVIEW

In order to assess what has been accomplished under the Public Finance Administration Project, it is important to understand the overall objectives established for the project These objectives were initially delineated in an internal USAID Project Paper in 1987, which was subsequently transformed into a Request for Proposals that was issued in the fall of 1988 This scope of work outlined in this RFP, broadly defined, was to support the Government of Egypt's efforts to reform and modernize its tax system

The RFP requested technical assistance in three specific areas (1) income tax reform and modernization, (2) consumption tax reform and modernization, and (3) special studies of property and inheritance taxes A fourth component of the project, modernization of customs administration, was not a part of the competitive tender, and was instead awarded to the U S Customs Service under a Participating Agency Services Agreement (PASA) The customs technical assistance was to begin at the same time as, and be coordinated with, the technical assistance to be provided by the private sector firm

In response to the RFP, Barents Group (then the Policy Economics Group of KMPG Peat Marwick), and other firms, submitted proposals to perform the requested scope of work Barents Group had the good fortune to be selected to perform the work, which was finalized by the signing of a contract in late summer of 1989 The scope of work outlined in the RFP, and in Barents Group's proposal was incorporated into the contract between USAID and Barents Group, which was amended from time to time to reflect the changing circumstances that emerged over the course of the project

Work commenced under a 30-month contract beginning in October 1989 Under USAID's project design, this was Phase I of the project and was to focus primarily on developing a comprehensive tax reform program for the Government of Egypt (GoE) The intent under the project design was to fund a second phase, to support the implementation of the tax reform package and associated administrative reforms, if the GoE agreed to move forward with major policy reforms

In fact, policy reform moved forward on a faster schedule than originally envisioned in the project design because the GoE accelerated its plans to implement a broad-based sales tax To USAID's considerable credit, it responded to the changing reform schedule by modifying the scope of the project quickly, which allowed the project to support this major reform implementation effort

PROJECT SCOPE OF WORK

The two pnmary objectives of the Public Finance Administration Project, as outlined in USAID's project design and the subsequent Request for Proposals, were

- To support the Ministry of Finance (MoF) in its efforts to design, implement and administer a tax system that is revenue productive, equitable, and neutral in its effect on work and investment incentives, and
- To give technical assistance to the MoF so that, by the end of the project the Ministry and its departments would be equipped with the necessary tools, techniques and capabilities to continue the process of modernizing and adapting to change

In support of these general objectives, specific targets and objectives were established for the PFAP over the life of the project, including the following

- Enactment and implementation of a modern sales tax in place of the consumption tax,
- Enactment and implementation of a Global Income Tax to replace the schedular income taxes and general income tax,
- Computerization of the administration of the income and sales tax systems,
- Development of modern training facilities and improved programs for continued training of Ministry personnel,
- Reorganization of the tax departments within the Ministry,
- Implementation of improved administrative procedures and improved methods for assuring tax law compliance, and
- Establishment of trained economic research units in the tax departments and the MoF

PHASE I

The initial scope of work in Phase I of the project design was focused on two major areas of tax reform – income tax reform and consumption tax reform It also included two separate studies (one of inheritance taxes and the other of property taxes) and the development of a plan to modernize the Tax Department's training facilities The Phase I scope of work also included technical assistance related to customs administration reform and modernization, which is generally not covered in this final report since it was under the direction of the U S Customs Service

The anticipated scope of work for Phase I was modified in two important ways during the first year of the project First, funding was provided to support the implementation of a new sales tax, including the development and installation of a computerized sales tax processing system This change was in response to the accelerating pace of reform announced by the Government of Egypt (GoE) Second, a Local Government Fiscal Management Study was added to the scope of work to assess the types of reforms required to improve the provision and financing of services provided by local governments in Egypt This change too resulted from promising developments in the area of local government finance reform The five major components of the Phase I work, as amended, are outlined below

1 Phase I Project Component Administration and Policy Analysis

- Design a comprehensive series of tax policy and administration reform scenarios, supported by tax model simulations of their revenue and economic effects, prioritize plans of action, support the drafting of legislation, and assist in whatever ways possible in implementation of tax policy reforms
- Assist the GoE in implementing a public awareness campaign informing the public of changes in the tax laws
- Design and assist the GoE in implementing an integrated Management Information System in the Tax Department and Sales Tax Department
- Conduct special studies of the property and inheritance tax systems

2 Phase I Project Component Income Tax Administration

- Continue initiatives begun under the prior Tax Administration Project (TAP) conducted by the U S Internal Revenue Service under agreement with USAID in (a) reorganizing the Tax Department, (b) developing tax training capacity, (c) computerizing tax administration functions and (d) streamlining collection and audit functions
- Recommend and field test new initiatives to (a) achieve greater efficiency and equity in tax administration, (b) create a taxpayer identification system and tracking system, (c) improve examination and collections systems, (d) expand the automated data processing plan for income tax functions, (e) improve personnel development and training plans, and (f) reorganize the Tax Department

3 Phase I Project Component Consumption Tax

- Studv and recommend reforms to the Consumption Tax Department's[2] administrative systems and assist the Department in improving its efficiency in assessing and collecting taxes
- Prepare recommendations covering (a) creation of a taxpayer identification and tracking system, (b) procedures for streamlining the assessment and collection of taxes, (c) procedures for increasing the capability to record, store and retrieve information, and (d) expanded management and technical training
- Under amendment to the original scope of work, provide technical assistance for all elements of the GoE's initiative to introduce a broad-based sales tax in Egypt, including empirical analysis of revenue and economic effects, review of draft legislation and recommendations for change, training support, support in developing new registration procedures and tax forms and assisting in designing a new organizational structure and new procedures

[2] Prior to the introduction of the General Sales Tax in 1991 the Sales Tax Department was called the Consumption Tax Department

6

- Also under amendment to the original scope of work, take the lead responsibility for developing a computerized sales tax processing system This included procuring computer systems for the regional and central offices, developing software for the new processing system, and training Sales Tax Department staff on the use of the new computer systems

4 Phase I Project Component Training

- Submit a plan for modernizing the Tax Department's training facilities and execute the approved plan
- Assess the desirability for out-of-country training for Tax Department staff
- Develop recommendations for new training centers after modernization of existing centers has been completed

5 Phase I Project Component Local Government Tax and Fiscal Reform

Late in 1990, there were indications that the GoE might be willing to begin granting greater fiscal autonomy to local governments USAID had invested substantial sums of money previously in local government reform Because this opportunity looked very promising, USAID moved quickly to add a new task to the Public Finance Administration Project to assess the prospects for local government fiscal reform in Egypt The scope of work under this task was to review in detail the structure of the existing system of local government finance and the means by which that structure could be changed over time to

- Increase local government revenues,
- Improve the efficiency by which these revenues are collected,
- Develop a fiscal structure that allows the MoF to have a more uniform and more accurate accounting of local government fiscal activity, and
- Develop a fiscal structure that provides local governments with greater autonomy in the setting of their own priorities

PHASE II

At the conclusion of Phase I, USAID was clearly pleased with progress on the reform front by the GoE The General Sales Tax had been implemented, thereby putting the GoE tax reform program ahead of the schedule originally envisioned In addition, discussions regarding future income tax reforms were actively underway with the Minister and his designees, using the project team's report, "A Comprehensive Tax Reform Program for Egypt" as the basis for these discussions The GoE commitment to reform, which was by project design to be a critical factor in USAID's decision as to whether or not to extend the project to Phase II, was clearly evident As is customary with large USAID-funded projects, the PFAP was subjected to a critical performance review towards the end of Phase I This review, which was conducted by Dr Roy Grohs, a Senior Economist from USAID Washington, was very favorable to the overall performance of the GoE in moving policy reform forward, of Barents in its support of this effort, of its report on comprehensive tax reform, and of the USAID Project Officer for her oversight of the project Accordingly, the recommendation was made to extend the project to a second phase, as originally envisioned in the project design

The scope of work for Phase II reflected the experiences and outcomes of the Phase I effort and was divided into three major components (1) sales tax reform and modernization, (2) income tax reform and modernization, ideally patterned after the project team's recommendations, and (3) training The local government tax and fiscal reform component of Phase I was not extended by USAID because Phase I activities demonstrated that the GoE was not prepared to move forward at that time with initiatives to decentralize delivery of local government services, the key objective of this assistance Also, it should be noted, the decision was made by USAID not to extend the customs technical assistance into a second phase

1 Phase II Project Component Sales Tax Reform and Modernization

The tasks under this component were designed to support the new Sales Tax Department in its administration of the General Sales Tax (introduced in May 1991) and to help it prepare for expansion of the tax to the wholesale and retail level at some future time The major tasks identified for this Phase of the project were

- Provide day-to-day technical assistance to the Sales Tax Department on issues related to the efficient operation and administration of the General Sales Tax, as introduced in May 1991 This assistance was directed towards
  - The Department's enforcement and audit activities, and their effectiveness in promoting high voluntary compliance with the new General Sales Tax,
  - Written technical decisions and procedures established to administer the sales tax,
  - Adherence of district and regional office operations to written instructions and procedures,
  - The evolving organizational structure of the Department and its effectiveness in supporting efficient sales tax administration
  - The coordination of the Sales Tax Department and the Customs Department in collecting and administering the sales tax, and
  - The district and regional office support of and use of the computerized sales tax processing system that was being developed by the project team
- Provide technical support to the Department as it prepared for and implemented the planned expansion of the General Sales Tax to include additional services and to the wholesale and retail trade sectors This major effort was to include
  - Drafting legislation and related ministerial decrees,
  - Analyzing the revenue and economic effects of the reforms,
  - Designing new tax forms, instructions and procedures,
  - Preparing training materials for Department staff reflecting the implications of the policy reforms for internal management,

  - ◊ Preparing educational materials for new registrants and the general public, and
  - ◊ Assessing the implications of the reforms on the structure and staffing requirements of the Department's organization

- ♦ Provide technical support to the development of a comprehensive sales tax training program using modern training techniques and technology

- ♦ Provide regular written reports to the Department evaluating both progress made and obstacles identified in improving the effectiveness of Department operations

- ♦ Continue to take a lead role in enhancing and expanding the use of computer technology in support of administration of the General Sales Tax This assistance was to include

  - ◊ Supporting Department efforts to expand the General Sales Tax Administration Computer System (GSTACS) in many ways introducing the system into district offices in support of their operations, evaluating and developing a computerized system to allow central, regional and district offices to communicate electronically, procuring computer hardware and software for the system's expansion, and providing technical computer training to new Department users of the system
  - ◊ Assisting the Department in preparing additional management information reports that would maximize the usefulness of the computer system
  - ◊ Preparing comprehensive user documentation (in English and Arabic) and technical documentation (in English only) of GSTACS, which was in the process of being developed by the project team
  - ◊ Providing day-to-day technical support to the Department in maintaining the system and in responding to hardware and software problems that arise
  - ◊ Providing formal and on-the-job training so that the Department's ADP unit would be able to support the sales tax processing system independently

2 Phase II Project Component Income Tax Reform and Modernization

In contrast to sales tax reform, which was ahead of the schedule originally anticipated in the USAID project design, income tax reform was proceeding apace essentially as planned During Phase I, the project team had prepared a comprehensive tax reform plan for the GoE's consideration, and as Phase II began, that plan was under active review by and being discussed with the Minister of Finance With this as general background, the scope of work envisioned for Phase II in support of income tax reform and modernization was as follows

- ♦ Provide technical support to the Minister of Finance and the Tax Department in support of planning for and implementing reform of income and other taxes administered by the Tax Department This technical support was expected to be directed towards

  - ◊ Drafting of legislation and related ministerial decrees,
  - ◊ Analyzing the revenue and economic effects of tax reform (using the analytic models developed during Phase I),
  - ◊ Designing new tax forms, instructions, and procedures,

9

◊ Preparing educational materials for the public,

◊ Introducing new systems of withholding, and

◊ Revising the Department's organizational structure

♦ Provide technical support to improve the effectiveness of the Tax Department's ongoing tax administration operations (recognizing that the breadth and scope of tax reform could significantly affect these operations) This assistance was expected to include

◊ Providing technical support for the introduction of improved compliance techniques, and

◊ Providing technical support to the development of a modern comprehensive income tax training program

♦ Provide continuing technical support and oversight to the ADP (automated data processing) Sector of the Tax Department to support their efforts to expand the use of computer technology in the administration of income taxes In this effort, the project team was to

◊ Provide general support and assistance to developing a long-term systems design and plan and monitor the progress in implementing that plan,

◊ Assist the Department in implementing a unique taxpayer identification system for both business and individual taxpayers, and

◊ Support ongoing efforts to expand the automation of tax administration to the district offices, through support in application software development and through procurement and installation of computer hardware and software

3 Phase II Project Component Training

During Phase II, the project was to perform a broad range of training activities coordinated through a resident training advisor These activities included

♦ Technical support to the MoF to pursue organizational reforms and initiatives recommended by the project team or separately identified by the MoF, including creation of additional regional training centers

♦ Technical support to further modernize training facilities, including help to determine priority equipment and physical facility needs

♦ Development of a training curriculum and design of specific courses that would introduce improved collection and auditing activities in both the Tax Department and the Sales Tax Department, targeted toward the reformed tax environment to which Egypt was and is moving

♦ Training the newly formed economic research units in the Minister's office and the two tax departments

The work performed during 1992-1995 under Phase II was subjected to a critical review in 1995 by a two-person team under contract to USAID These reviewers – Dr William Fox and Mr James Owen – concluded that the project was making significant progress in advancing tax policy and administrative reforms Accordingly, they recommended that the work underway in

Phase II be extended USAID concurred with this recommendation and extended the project in several stages, to November 30, 1998

PROJECT STAFFING AND SUPPORT

As noted earlier, the Public Finance Administration Project was conducted very much as a partnership between the GoE's Ministry of Finance and its participating departments, USAID, and Barents Group The discussion below and the referenced appendices, outline the staffing structure and key individuals involved from each

BARENTS GROUP LLC

At the time of contract award in August 1989, the level of effort for Phase I of the project included five expatriate Resident advisors, approximately fifteen local staff, and extensive support from Barents' home office staff and short-term consultants With the modifications outlined above to support both implementation of the General Sales Tax and the Local Government Fiscal Management Study, two additional resident advisors and approximately five local staff were added The resident advisor staffing structure in Phase I was as follows

- Chief of Party (Economist),
- Income Tax Administrator,
- Income Tax Administrator,
- Sales Tax Administrator,
- ADP Advisor Systems,
- ADP Advisor Sales Tax [added in 1990], and
- Local Public Finance Economist [added in 1990]

In Phase II, the size of the project team increased to reflect the expanded scope of work that was envisioned to support the major modernization and reform efforts that were taking hold The number of resident advisors increased to ten to reflect the increased emphasis on supporting computerization of the Tax Department and the Sales Tax Department Because of the increased emphasis given to training, a training resident advisor position was also added Also, project management support was shifted from Washington to Cairo for the first two years of Phase II, and a resident position was added to provide this support The composition of the resident advisor staff at the outset of Phase II was as shown below

- Chief of Party,
- Project Manager,
- Income Tax Administrator,
- Sales Tax Administrator,
- Sales Tax Administrator,
- ADP Advisor Systems,
- ADP Advisor Sales Tax,
- ADP Advisor Income Tax,

\\

- ADP Advisor Telecommunications, and
- Training Advisor

The local staff at the outset of Phase II totalled more than twenty people and consisted of an office manager, an economist, an accountant, five computer programmers, four translators, secretaries, drivers, and office assistants In addition, the project continued to receive extensive support from Barents' home office professionals and from consultants during Phase II

Over the course of Phase II, as several different times, the overall expatriate staffing levels declined as more and more of the project responsibilities were shifted to the respective tax departments being supported by the project This shows that institutionalization of the GoE counterparts was advancing throughout the execution of project

Appendix A, at the end of this report, provides a complete listing of all project personnel who participated in the project, and their primary roles on the project

USAID

The project benefitted from having Ms Iman Aly El Shayeb as the Project Officer for virtually the full duration of project, with the exception of a brief period of time when she was on leave from USAID Ms El Shayeb had managed the prior USAID tax project with IRS, and she had close ties with the Ministers of Finance and the Commissioners of the Tax Departments Her prior project-related experience, her close ties to the GoE, and her extensive experience working with very sensitive tax policy issues, proved invaluable to the project team in gaining quick access to the top tax officials in the Egyptian Government The project also benefitted from support from higher levels in the USAID organization at times when such support was needed This included support from Ms El Shayeb's immediate supervisors (at various points, Mr Jerry Wood Dr Sam Skogstad, Dr Paul Deuster, Dr Paul Mulligan, and Mr Robert Wuertz) and active support from the Mission Directors and Deputy Mission Directors over the life of the project

The project also benefitted from the active support of a number of different contracting officers over the life of the project Their role was an unusually active one, since the project went through a number of modifications and extensions, and because there was extensive procurement activity throughout the project Mr Michael Nicholas, Ms Kim Kester Ms Beth Paige, Mr James Athanas, Ms Anne Terio and Ms Lisa Bilder all deserve special mention for their efforts on the project's behalf

GOVERNMENT OF EGYPT

The GoE participated actively in all aspects of the project and any successes attributed to the project should in large part be considered success of the GoE

At the highest level, the project team worked closely with the two Ministers of Finance who were in office during the nine years of project activity, His Excellency Dr Mohamed El Razaz and His Excellency Dr Mohie El Din El Gharib Both provided their own time and access to their staff in support of all aspects of the project Dr Razaz presided over the implementation of

12

the two major reforms that occurred during the project – the implementation of the General Sales Tax in 1991 and the Global Income Tax in 1993 (effective January 1, 1994) Indeed, he was fully involved at a detailed level in the full range of policy discussions associated with each of these major reforms Dr El Gharib, in turn has continued to move the tax reform agenda forward with a number of important reforms – including reform of the tax treatment of interest and further reductions in income tax rates – since 1996 These policy reforms are more fully discussed in the following chapter He also submitted legislation to the People's Assembly to extend the sales tax to the retail level and to replace the cumbersome System of Discounts and Additions with a modern estimated payments system

For the Sales Tax Department, the project team worked closely throughout the project with Commissioner Mahmoud Ali and during the first eighteen months of the project, with his predecessor, Mr Ahmed Abd El Radi Ismail Mr Mahmoud Ali's outstanding participation and exceptional support was and still is noteworthy, and the major advancement of his department during the course of the project is very much a reflection of his vision, energy and leadership Mr Mahmoud involved many of his senior Department staff in the project, many of whom are identified in various chapters of this report and in Appendix B at the end of this report

For the Tax Department, the project team worked closely with the three different Commissioners who served from 1989 to 1998 They were Mr Fathi Abd El Baki, Mr Usama Abd El Sadiq, and Mr Fakhri Saad El Din Awad All participated actively and supported the project and involved many of their senior staff, many of whom are also identified in Appendix B The current Commissioner, Mr Fakhri, deserves particular recognition for his efforts to move forward with project team recommendations during the portion of his tenure that overlapped with the project

13

II THE ECONOMIC AND FISCAL SETTING

INTRODUCTION

In Chapter I, the scope of work for the Public Finance Administration Project was outlined, so that the activities and accomplishments of the project can be understood and assessed relative to those that were planned This chapter continues to build the foundation on which the project was conducted by presenting a summary of the economic and fiscal setting that prevailed in Egypt at the time the project was initiated This description will help the reader to understand why USAID devoted substantial funding to a project of the size and scope of the PFAP at the time that it did and the reasons for giving great priority in Phase I to promoting major tax policy reforms The presentation also describes the project team's general perspective on tax reform after it had completed its initial diagnostic of the prevailing tax setting as it existed in 1989

THE ECONOMIC SETTING AT PROJECT INITIATION

The last half of the 1970s was a period of continued economic expansion in Egypt, with annual GDP growth in real terms averaging 9 percent per year in the 1974 to 1981 period After 1982, however, the marked decline in oil-related foreign exchange revenues had a depressing effect on the level and pace of economic activity Initially, this effect was partially offset by increased foreign borrowing, by 1986, however, the Egyptian economy was in severe difficulty

- Economic growth had fallen sharply to levels lower than population growth, inflation was relatively high and increasing, and the balance of payments deficit had increased to a very high level
- Egypt's debt to GDP ratio was one of the highest in the world and the consolidated budget deficit had reached 23 percent of GDP

It is also important to note that Egypt was one of the most controlled economies in the world The bulk of its industry was state-owned, the Government controlled the prices of many important products, and the financial sector was largely state-controlled as well as heavily regulated Indeed, Government intervention in many forms--taxes subsidies, incentives, and regulations--dominated the economic landscape in almost every sector

It is noteworthy that Egypt was also highly dependent upon revenues from external sources at the time the project began Oil revenues, revenues from the Suez Canal, tourism, workers' remittances from abroad (particularly Iraq and the other Gulf countries), and foreign aid were the main sources of foreign currency needed for purchasing imports of raw materials, food, and capital goods Unfortunately, these sources of funds are highly sensitive to changing regional and global circumstances

14

Beginning in 1987, the Government of Egypt began to adopt a series of major policy reforms in an effort to cope with these serious economic and structural problems These reforms included devaluing its currency, the Egyptian pound, to attempt to restore equilibrium in the foreign exchange market, moving to market-determined rates of interest, reducing impediments to exports and to private investment, and reducing the public sector deficit by restraining expenditures and expanding revenues The pace of progress was, however, necessarily gradual, in part because there was so much to do and in part because of social and political constraints that faced the Government Indeed, the social and political constraints on economic reform were particularly strong in Egypt for three reasons

- First a central tenet of Egyptian policy for almost 40 years has been the supply of basic goods and services at low prices and the economic protection of the poorer segments of Egyptian society This commitment has been considered a "social contract" between the Government and its people, and it can be breached only at great peril to social and political stability
- Second, the "social contract" was generally interpreted by the Egyptian population as imposing an obligation on the Government to retain all existing public sector workers until retirement and to provide employment for all university and college graduates
- Third, the Government had only recently been attempting to extend democracy in various ways while simultaneously coping with the deteriorating economic situation Rapid population growth and continuing regional and internal instability served to increase Egypt's economic difficulties at the same time it constrained the opportunities for introducing radical reforms It is always difficult to do more (politically) with less (economically), and the Government was thus compelled to navigate its fiscal course with great care

The circumstances outlined above had significant implications for the introduction of tax reforms

- An important objective of any reform clearly had to at least maintain and perhaps increase tax revenues in order to reduce the large public sector deficit At the same time, the reforms needed to lessen the vulnerability of the Government to exogenous factors
- Reforms needed to support and encourage the "liberalization" of the Egyptian economy Although state-owned enterprises were expected to continue to play a dominant role in many sectors of the economy for years to come, the tax system needed to support an environment in which the private sector was beginning to emerge
- In view of social and political constraints, reforms had to be distributionally acceptable Significant tax increases could not be imposed on those who were already struggling just to be able to obtain the basic necessities of life
- The ability to streamline and modernize tax administration and introduce significant economies was likely to be constrained to some significant degree by the Government's general employment policies

THE TAX POLICY SETTING AT PROJECT INITIATION

Virtually all taxes in Egypt – in 1989 and at the present – are central government levies and include taxes on corporate and individual income, international trade and domestic consumption, stamp duties, and a range of miscellaneous taxes Tax revenues in general accounted for more than half of all central government revenues in fiscal year 1988/89, the primary sources of non-tax revenues were the transfer of profits from the Egyptian General Petroleum Company, the Suez Canal Authority, and the Central Bank of Egypt The composition of tax revenues, for the period from 1981/82 to 1988/89, is shown in Exhibits II-1 (Revenues in Egyptian Pounds) and II-2 (Revenues as a percent of GDP and as a percent of Total Tax Revenues)

Exhibit II-1
Composition of Tax Revenues
(LE Millions)

Tax	1981/82	1982/83	1983/84	1984/85	1985/86	1986/87	1987/88	1988/89
Corporate Tax	717	1,332	1,053	1,248	1,420	1 343	1 554	1,866
Individual Income Taxes	1,581	555	561	713	932	947	1,165	1,474
Sub-Total	**2,298**	**1,887**	**1,614**	**1,961**	**2,352**	**2,290**	**2,719**	**3,340**
Consumption Tax	813	1,195	1,302	1,444	1,489	1 722	1,894	2,407
Customs Duties	1,575	1,664	1,920	1,907	1,808	1 929	2,378	2,848
Stamp Duties	239	254	308	344	383	430	495	721
Inheritance/Estate Tax etc	8	12	14	16	19	25	30	20
Other Tax Revenues	226	178	184	234	387	402	481	458
TOTAL	**5,157**	**5,190**	**5,342**	**5,906**	**6,438**	**6,798**	**7,996**	**9,793**
GDP	20,781	24,170	28,504	33,132	38,356	51 566	61,713	76,791
Tax Revenues as a percentage of GDP	24 8	21 5	18 7	17 8	16 8	13 2	13 0	12 8

Source Barents Group A Comprehensive Tax Program for Egypt' October 1991

Exhibit II-2
Composition of Tax Revenues
(Percent)

	Income Taxes	Consumption Taxes	Trade Taxes	Other	Total
A. As percent of GDP					
1981/82	11 1	3 9	7 6	2 3	24 8
1982/93	7 8	4 9	6 9	1 8	21 5
1983/94	5 7	4 6	6 7	1 8	18 7
1984/95	5 9	4 4	5 8	1 8	17 8
1985/86	6 1	3 9	4 7	2 1	16 8
1986/87	4 4	3 3	3 7	1 7	13 2
1987/88	4 4	3 1	3 9	1 6	13 0
1988/89	4 3	3 1	3 7	1 6	12 8
B. As percent of Total Tax Revenues					
1981/82	44 6	15 8	30 5	9 2	100 0
1982/83	36 4	23 0	32 1	8 6	100 0
1983/84	30 2	24 4	35 9	9 5	100 0
1984/85	33 2	24 4	32 3	10 1	100 0
1985/86	33 7	25 3	28 4	12 6	100 0
1986/87	34 0	23 7	29 7	12 6	100 0
1987/88	34 1	24 6	29 1	12 2	100 0
1988/89	37 2	25 9	22 9	14 0	100 0

Source Barents Group A Comprehensive Tax Reform Program for Egypt

The data show that the ratio of taxes to GDP fell dramatically from 1981/82 to the end of the decade, which explains to a significant extent why the Government's budget deficit reached such high proportions The sharp relative reduction in Government tax revenues – from 24 8 percent of GDP in 1980/81 to 12 8 percent in 1988/89 – resulted primarily from relative reductions in income taxes (from 11 1 percent of GDP to 4 3 percent of GDP) and customs duties (from 7 6 percent of GDP to 3 1 percent of GDP)

17

This unfavorable fiscal trend resulted from several characteristics of the Egyptian tax system both structural and administrative These characteristics included

- *Excessive reliance on taxes that were directly linked to the external sector* The project team estimated that at least half of central government tax revenues were directly dependent on the external sector in the late 1980s
  - ◊ *Vulnerability of the tax structure to inflation* Although the income tax was progressive overall, inflation had an adverse impact on collections because of the long lags between assessment and collection and the inadequate penalties that were applied to delayed payments At the same time, inflation adversely affected indirect tax revenues because of the specific nature of most consumption taxes
  - ◊ *Tax evasion* There was a strongly held view that there was a high degree of tax evasion, particularly from income taxes, that resulted in a significant erosion of the tax base

Prior to the initiation of the PFAP, there had been no major simplification or restructuring of direct or indirect taxes in Egypt for decades[3] The long-standing tax structure is briefly summarized in the discussion below

- *Taxation of Corporation Income* The taxation of corporate income included the income of government enterprises and branches of foreign corporations, as well as companies incorporated in Egypt The law was characterized by a wide range of conflicting provisions that distort economic activity
  - ◊ The standard tax rate was 40 percent, though a preferential rate of 32 percent applied to profits from exporting and industrial activities (and a 40 55 percent rate was applied in the case of oil exploration and production companies)
  - ◊ The tax base was significantly eroded by widespread use of tax holidays (periods of almost complete exemption from tax) and tax free zones (defined geographical areas and forms of economic activity in which tax was not chargeable) Companies were able to enjoy tax holidays of between five and twenty years and abuse of the system was said to be widespread The law on the subject was ill-defined, and in many cases it was not clear which type of company qualified for a tax holiday It was also possible to simply change the legal form of the company, while maintaining the ownership and economic substance, in order to qualify for a fresh holiday period once an existing one expired
  - ◊ The tax base for corporations was further eroded by the provision for investment allowances for the cost of new machinery and equipment (beyond normal depreciation allowances), and other tax preferences (such as a deduction for imputed rent of company-owned buildings occupied for business purposes)
  - ◊ Most forms of government, bank and corporate interest were hardly taxed at all Interest received by individuals was exempt while only 10 percent of interest received by corporations was taxed Interest expenses, nevertheless, were deductible This not only distorted capital flows but also promoted tax arbitrage, whereby corporate tax liabilities

[3] The last major piece of direct tax legislation had been the enactment of Law 157 of 1981 which to a very large extent merely recodified the previously-existing law

18

could be reduced by tax-driven borrowing The result was a significant revenue loss By way of trying to compensate for this anomaly companies listed on the Stock Exchange were allowed a tax exemption equal to the product of their "paid-in" equity capital and the interest rate set by the Central Bank This deduction for a fictional investment was widely regarded as only increasing the anomalous treatment of investment income and further eroding the tax base

- ◊ Treatment of depreciation was unnecessarily complicated Under Egyptian tax law there were seven rates of depreciation applied to approximately fifty categories of assets The asset classification was very specific and contained unnecessary, if not confusing, distinctions (e g , printing equipment, printing machines, and bars and steering wheels of printing machines were depreciated at different rates) The system lacked transparency because much depended on the outcome of negotiations with individual tax officials Taxpayers therefore lacked certainty as to the probable tax consequences of investment in new business equipment

- ◊ A further obstacle to investment in equity capital was presented by the various stamp duties charged in connection with shares A fixed duty was charged on issued capital at the time of incorporation or when the corporation increased its share capital, an annual duty was charged on shares, quotas and debentures issued by Egyptian companies, and a proportional duty was charged on the buying and selling of shares

- ◊ Conversely, the corporate income from which dividends were paid was taxed at the corporate level and again when paid as dividends to shareholders under the General Income Tax Dividend income was thus taxed twice This double taxation was becoming more significant as the GoE began trying to promote investment and the growth of efficient capital markets

- ◊ The allowances for bad debts were also unnecessarily constrained A tax deduction for a bad debt could only be obtained if the debt had been declared bad by a very prolonged judicial process Tax deductions in respect of reserves for probable bad debts could not exceed five percent of net income These restrictions were, of course, particularly onerous for financial concerns, especially banks

- ♦ *Taxation of Individual Income* The income tax on individuals was collected under four separate schedular taxes, together with a supplementary and overlapping General Income Tax It was generally considered to be unnecessarily complicated, difficult to administer, and susceptible to abuse In addition, each schedular tax had its own rules for computing taxable income, and within the schedules were various specific deductions and allowances, such as an allowance to professionals for "personal depreciation " These deductions often had little justification, rendered computation of taxable income highly complex, and generally eroded the individual income tax base The four schedular taxes were

  - ◊ A schedular tax on wages and salaries levied on income derived from employment This tax was levied at progressive rates ranging from 2 to 22 percent Several categories of allowances paid to employees were tax exempt and several deductions and exemptions were allowed, including a family burden exemption

19

◊ A schedular tax on mobile capital was applicable to certain interest income (most interest income was exempt from tax), foreign source dividends, and most payments to officers and directors, at a flat rate of 32 percent

◊ Two schedular taxes were levied on unincorporated business profits, one on commercial and industrial profits and one on professional profits Both taxes were progressive, with rate structures ranging from 18 to 40 percent on commercial and industrial profits and 20 to 30 percent on professional profits The rules for determining profit were similar to those for corporations, except that the professional tax allowed a deduction for professional depreciation equal to 10 percent of net income

In addition to the above-mentioned scheduler taxes, other characteristics of the taxation of individual income included the following

◊ The supplementary General Income Tax, which was applied in addition to the scheduler taxes, was applicable to individuals whose income exceeded LE 2,000 per year The tax base included income from every source subject to a schedular tax plus certain other income (e g , one-half of dividends paid by Egyptian registered companies, all dividends from unregistered companies, rental income from unfurnished housing, and income from agricultural property) The rates of tax were steeply progressive, with a maximum rate of 65 percent A deduction from taxable income was allowed for schedular taxes paid Although general income tax rates were high, revenue was low, reflecting a very low rate of compliance with the tax

◊ A family burden exemption was allowed--ranging from LE 720 to LE 960 depending upon the taxpayer's marital and family circumstances--for all of the schedular taxes except the mobile capital revenue tax This exemption could only be claimed once, however, even if the taxpayer had income from more than one revenue source

◊ Egypt had a system designed to ensure current payment of tax by both individuals and corporations known as "Discounts and Additions" Under this complicated system, designated firms withheld tax on transactions of purchase and sale with private (not public sector) firms Tax collected under this scheme was accounted for by the withholding agents on a quarterly basis and a detailed report of transactions – specific to each taxpayer who had transactions in the quarter--was submitted to the Tax Department The taxes paid under Discounts and Additions were to be deducted from the taxpayers final tax bill However, many taxpayers complained that, because of the excessive paperwork required by the system, they did not receive the deduction due for tax paid

◊ The penalty system applicable to acts of non-compliance was inadequate Penalties were applicable to failure to keep adequate business records, late filing of returns, non-filing of returns, under-reporting of income and fraud However in many cases the penalty was too low to act as an effective deterrent to non-compliance In addition many penalties were criminal" in nature, which meant that they were not imposed automatically by the tax authorities but had to be pursued through the courts Given that the legal process was long and costly, it had become common practice for the tax authorities to forego penalties

◊ Similarly, the interest provisions relating to late payment of tax also encouraged delay particularly in a period of high inflation On self-assessed tax, interest did not begin to accrue on unpaid tax until nine months after the due date for payment, for tax assessed by the Department, interest did not apply until January 1 following the date of the assessment Given that assessments might be five years in arrears, this had a significant adverse impact on revenue flows Moreover, a commercial rate of interest was not charged on overdue tax The incentive to taxpayers to raise spurious appeals and to delay finalizing tax due was thus considerable

- *Taxes on Consumption* The consumption tax in 1989 resembled more a collection of excises than a general sales tax In total, only 124 different items were subject to the consumption tax, and of these only half were domestically produced Furthermore, different rates and exemptions usually applied, depending upon whether the goods were imported or domestically produced Because the rates on imported goods subject to consumption tax were higher, the higher tax rates on imports effectively provided an additional element of protection to Egyptian businesses beyond that provided by customs duties The broad range of rates generally ranged from 5 to 50 percent From a fiscal policy perspective, many problems with the consumption tax were identified

◊ The base of the tax was too narrow At the time the project was initiated, two-thirds of total consumption tax revenue was derived from only two goods cigarettes and petroleum products Nine taxable items accounted for 83 percent of all collections

◊ The tax had an undesirable protectionist feature, thereby overlapping with the role of customs duties, since the tax on over half of the items was essentially restricted to imports

◊ The tax base included producer goods as well as consumer goods, (e g , sugar, used as an input to soft drinks) so that there was also cascading of the tax

- *Taxes on International Trade* Import duties were a principal source of Egypt's tax revenues producing an average of about 30 percent of revenues during the 1980s These high revenues have as their economic counterpart a high degree of protection There were 11 principal rates of duty, generally ranging from 5 to 100 percent In addition, there were four extremely high rates on alcoholic beverages

- *Stamp Duties* Egypt raised a relatively high proportion of tax revenues – averaging 7 percent during the 1980s – from stamp duties In addition to the traditional documentary stamps, these duties were levied on government and public sector payments, including wages, corporate shares, and debentures, utility services, and banking services Some were in effect supplementary license fees The rates of duty were mostly specific in nature, ad valorem rates applied to only a few items

- *Other Taxes* The Government levied a number of other taxes that raised relatively small amounts of revenues These other tax sources included

◊ A Social Solidarity Tax that applied to work permits for Egyptians working abroad, some private cars, and tickets for foreign travel purchased in Egypt

◊ A State Financial Resources Development Duty, which imposed a tax of 2 percent on individual and corporate incomes in excess of LE 18,000, and therefore overlapped an already complicated income tax system

21

◊ An Inheritance Tax, which was reformed just prior to initiation of the project that probably produced less revenue than it cost to administer it

◊ Property taxes, which were applicable to (i) urban, privately-owned commercial buildings and luxury housing, (ii) land used for agricultural purposes, and (iii) urban vacant land Property taxes were levied at uniform, centrally established rates and produced relatively small amounts of revenues Failure to carry out frequent and effective revaluations of property and to revise the rates chargeable in line with changing property values had led to significant erosion of property as a tax base

The objectives of a comprehensive tax reform program were relatively quickly determined by the project team to include the following

- *Improved revenue productivity* It was clear that a basic objective of tax reform in Egypt had to be to increase revenue yield to the central government and to raise the buoyancy and elasticity of the tax system as a whole The very low responsiveness of tax revenues to economic growth, which had been a major contributor to the fiscal problems that plagued Egypt during the 1980s, needed to be improved as part of a sustained and effective program of deficit reduction

- *Fairness* An objective of any tax reform should be to assure that the tax system is fair, imposing little or no tax on the poor, treating those with equal incomes equally, and imposing a higher share of the tax burden on those with higher incomes Fairness also requires that those who owe taxes in fact pay them

- *Neutrality* Any tax system should be designed to interfere as little as possible with the decisions of businesses and individuals in response to market opportunities In view of the large distortions in economic and financial decisions that resulted from the tax system in Egypt, this principle took on particular importance as the country began to increase its reliance on market mechanisms to allocate resources and to promote economic growth

- *Simplification* A key principle underlying the design of a reformed tax and administration structure is simplicity Simplification includes the design of as simple a tax structure as possible that is easily understood by both taxpayers and the tax administration, eliminating duplicative taxes and burdensome methods of collection, removing as many taxpayers from the tax rolls as possible, and minimizing the need for filing of tax returns

- *More effective and efficient administration* To a large degree the above objectives depended upon whether the tax would be effectively administered Revenue, fairness, neutrality, and simplification all require that taxes be assessed quickly and accurately and be paid promptly when due Modernization of tax administration and the introduction of computerization would be an essential element of a comprehensive tax reform program, particularly in the case of income taxes Modernization and reform could also ultimately reduce the relative costs of administering the tax system

The project strategy that emerged for achieving the objectives outlined above had several important elements

- *Introduction of a global income tax* First and foremost the introduction of a global income tax in place of the then existing schedular system of income taxes, was a priority in Egypt Under the proposed program of global income tax reform, all incomes would be taxed under a single schedule of tax rates that would be substantially lower than the existing law, many low income taxpayers would be removed from the tax rolls, corporate source income would be taxed only once, and tax incentives would be curtailed or eliminated, as they were generally ineffective and counter-productive

- *Introduction and expansion of the role of sales taxation* Introduction of a Value Added type tax would be a reform of paramount importance Expansion of the tax to a full VAT system would provide a broad based, neutral and buoyant source of revenues to underpin reform elsewhere in the system

- *Elimination of stamp duties and duplicative taxes* Income and sales tax reform would allow many inefficient and burdensome stamp duties to be eliminated As a result, the reformed tax system would facilitate tax compliance and improve tax administration with no loss of revenue

- *Reform of property and inheritance taxes* Property tax reform could be usefully linked to giving local governments in Egypt greater fiscal autonomy The inheritance tax suffered from major defects and was too insignificant to achieve any economic or social purpose

- *Administrative reforms,* Structural reform, to be fully successful, needed to be integrated with a broad range of administrative reforms and modernization efforts, including efforts to computerize tax administration in Egypt, improvement in the current tax payments system, reform of the penalty and appeals system, and organizational reform

THE TAX ADMINISTRATION SETTING AT PROJECT INITIATION

The large majority of the central government's tax revenues were collected by three departments in the Ministry of Finance the Tax Department, which collected all income taxes, stamp duties, the social solidarity tax, the inheritance tax, and a few miscellaneous taxes, the Consumption Tax Department, which collected the taxes on domestic consumption, and the Customs Department, which collected all customs duties and consumption taxes imposed on imports

The effectiveness of a country's tax administration affects all of the objectives of a modern tax system, including its ability to generate substantial revenues, its horizontal and vertical equity, its neutrality between different types of economic activity, and its costs of administration and compliance In virtually all of these respects, income tax administration in Egypt was viewed to be far short of acceptable performance

- *Compliance* The Tax Department was tied to a policy of auditing all taxpayers for every year, an enormously resource-intensive and costly effort Not only was this an unnecessary and poor use of resources, it undermined what voluntary compliance that did exist Only one in three taxpayers filed an income tax return and as many as ninety percent failed to pay the amount owed by the due date

- *Backlog of cases* Because the Department did not have the resources to perform the large volume of audits that resulted from the 100 percent audit policy audits were often cursory, assessments arbitrary, and an enormously large backlog of cases measured in the millions, had developed over time

- *Penalty and interest structure* Poor compliance was greatly reinforced by an inadequate penalty structure that effectively encouraged taxpayers to be delinquent in filing returns, declaring their incomes, and paying their tax liabilities At the same time, interest charges imposed on late payments were inadequate, giving taxpayers an incentive to use the Government as its lender of first choice

- *Payments system* There was no estimated payments system in effect, either for individuals or corporations Instead, Egypt had a cumbersome additions and discounts system, as noted earlier, that absorbed enormous amounts of Department (and taxpayer) resources and was only applicable to a limited class of transactions

- *Administrative procedures* Administrative procedures were almost entirely manual, cumbersome, and often duplicative within the Department Not surprisingly, the costs of collection appeared to be relatively high Moreover, a unique taxpayer identification numbering system did not exist, this represented a major barrier to successful computerization of income taxes

- *Organizational structure* Organizational responsibilities were matrixed in a confusing way between those which were geographically-based, whereby district offices handled case loads of taxpayers in their area, and those which were industry-based, whereby certain districts handled taxpayers in particular industries (e g , spinning and weaving)

The problems with income tax administration in Egypt, as noted above, were substantial and well ingrained within the tax system, broadly defined The problems with consumption tax administration, while similar in some ways, were less severe and quite different in others For example

- Descriptions of taxable commodities provided in the law were imprecise and problems of interpretation arose affecting both taxpayers and officials

- Every manufacturer or importer of taxable goods, irrespective of the size of his turnover, was defined as a "taxpayer" and required to register under the tax Although notification of registration was recorded manually, the manufacturer was not issued a registration number or other unique means of identification

- The rules with regard to when the tax was due allowed some manufacturers to escape accounting for tax on some goods sold and to avoid accounting for all invoices issued at time of sale

The challenges to sales tax administration in Egypt were, in some respects greater than those for income tax administration, because the Consumption Tax Department would be asked to shift from effectively an excise-based system, where administration is focused on physical controls, to a value added system, where administration is linked to financial records Viewed from another perspective, however, this major change had the potential to serve as a catalyst for the kind of major administrative overhaul that was needed in the Egyptian tax bureaucracy

25

III INTRODUCTION OF POLICY REFORMS

OVERVIEW

As noted in Chapter I, the primary objective of the first phase of the Public Finance Administration Project was to be a catalyst to and supporter of tax reform Without question, this was a major challenge because, in most countries, major tax reforms occur only infrequently, a general rule to which Egypt had certainly been no exception in the past There was, nevertheless, reason to be optimistic

- Working with USAID, the Government of Egypt (GoE) had approved the project and made commitments to move the tax reform agenda forward (a condition for continuation of the project into a second phase)
- There was a growing recognition within the GoE, and most certainly by the Minister of Finance, that tax reform was badly needed to help address the many economic and fiscal woes the country faced
- The International Community – the IMF, the World Bank, and others – was applying increasing pressure to the GoE to introduce fiscal reforms, and these pressures could not be ignored

The general atmosphere of optimism was reinforced by the initial project effort, which was a diagnostic review of the Egyptian tax system, conducted in October 1989, by some of the leading public finance economists in the world The team included Drs Richard Bird (who served as the overall lead policy advisor during Phase I of the project), Harvey Galper (who led the income tax reform initiative), Darwin Johnson (who shortly thereafter assumed the role of resident Chief of Party of the project), Charles McLure, and Oliver Oldman This senior team, and the policy analysts who worked with them, all had extensive experience in the area of international tax reform and policy analysis The credibility of the team was enhanced at the outset by the fact that Drs Bird and Oldman had worked closely with His Excellency Dr Mohamed El Razaz in 1986-87 on a prior tax reform project in Egypt, before Dr Razaz had assumed the role of Minister of Finance The positive relationships that were established during this initial Mission represented a strong beginning on which to build

This initial diagnostic provided a broad general understanding of the Egyptian tax system and provided the foundation for establishing a research and analysis agenda for the project going forward A large number of specific analytic studies were initiated as a result of this initial diagnostic review, as outlined later in this report At the same time, the foundation was established for a major data collection effort which was undertaken jointly by the project team and a team of Tax Department professionals selected jointly by the Minister of Finance and the Commissioner of the Tax Department This data gathering effort was to later prove critical to the empirical analyses conducted by the project team in assessing the potential revenue and distributional effects of different tax reform alternatives (The project team's efforts to develop databases, build analytic models, and train Egyptian professionals on their use, is discussed more fully in the next chapter)

The general sense of optimism that was felt at the outset of the project by all who were participating in it – the Ministry of Finance, USAID and Barents—proved justified, based on the record of results that has emerged over the last nine years A new General Sales Tax was introduced in 1991 to replace the Consumption Tax, and the scope of this tax has periodically been expanded A Global Income Tax was introduced in 1994, consolidating the schedular taxes and general income tax, and further income tax reforms have been introduced in the period since Some stamp duties that interfered with market allocations were repealed And protectionist customs tariffs were dramatically reduced, with the top tariff halved, from 100 percent to 50 percent A summary of the major policy reforms that have been introduced during the 1990s is presented in Exhibit III-1, so that the reader can get a sense of both the breadth and the continuity of the policy reform process during this period

While much has been accomplished in the area of policy reform in the 1990s, without question, there is more that remains to be done, as is discussed further in the concluding chapter of this report It is very encouraging to see, however, that the GoE has continued to introduce further tax reforms, some of them very significant, after introduction of the General Sales Tax and the Global Income Tax As the GoE continues to advance a broad-based reform agenda that includes privatization, financial sector reform, and trade reform, it is important that the tax system reform process keep apace of these other initiatives

In the discussion that follows, the tax reforms that have been introduced in Egypt, and the project team role in supporting these reforms, is presented The sales tax reform is discussed first, since it became the initial focus of the project team and the first major tax reform introduced by the GoE This is followed by the discussion of income tax reform, which is subdivided between the discussion of the Global Income Tax and reforms introduced after this legislation Other tax reforms, including stamp duties, inheritance tax, property tax, and customs duties, are then discussed

SALES TAX REFORM

PREPARING FOR REFORM

The introduction of sales tax reform in Egypt reflected a lengthy process of planning and deliberation that dated back to 1978, when an IMF advisor prepared a draft sales tax law for consideration by the GoE This IMF effort did precipitate some movement forward when, in 1981, the GoE introduced some minor reforms to its existing Production Tax and began calling it a Consumption Tax In subsequent years there were periodic discussions within the Government regarding the implementation of a sales tax, and there were frequent references to the relative merits of a General Sales Tax in the press and at professional conferences But action by the GoE was not forthcoming

Exhibit III-1
SUMMARY OF POLICY REFORMS 1990-1998

I Sales Tax Reforms

May 1991	Major Reform Introduction of General Sales Tax (GST) to replace the previously existing Consumption Tax by Law 11
March 1992	By Presidential Decree, expansion of the tax base to include more services notably telecommunication services and contracting services and consolidation of rate schedule for Table 1 commodities
July 1993	By Presidential Decree, expansion of the tax base to include more services, including car rentals, quick mail services road tolls, and security clearance services At the same time, the 20 percent and 30 percent rates were consolidated into a single rate of 25 percent
February 1994	By Presidential Decree, expansion of the tax base to include more services, including services for the sale of realty and vehicles
February 1995	By Presidential Decree, five percentage point increase in tax rate on motor vehicles, thereby creating a 15 percent rate for lower-valued cars and 30 percent for luxury cars
September 1996	By Presidential Decree, an increase in the sales tax rate on luxury cars from 30 percent to 45 percent
January 1997	Law 2 enacted to replace Presidential decrees referenced above

II Income Tax Reforms

January 1994	Major Reform Introduction of the Global Income Tax by Law 187 to replace the previously existing schedular taxes and the General Income Tax
June 1995	Law 95 of 1995 exempted the profits of a finance lessor from tax for five years
June 1996	Law 90 of 1996 exempted the income of mutual funds from tax
May 1997	Law 8 of 1997 unified the laws relating to tax holidays and tightened the legislation applicable to the holiday regime
October 1997	By Department Decree, depreciation classifications were significantly simplified, reducing the number of asset categories from 50 to 5
December 1997	Law 162 of 1997 reduced the top marginal tax rates for self-employed businesses and professions and further increased the Family Burden Allowance
January 1998	Law 5 of 1998 introduced significant reforms to corporate taxation ◊ It restricted the deduction allowable for the cost of borrowing (interest paid) to the actual cost of borrowing This is a major step forward in the tax treatment of interest ◊ It increased the level of the bad debt reserve deduction available to banks

III Other Tax Reforms

June 1992	The Capital Market Law of 1992 repealed the stamp tax on capital of corporations registered on the stock exchange (It also introduced of a 2 percent tax on capital gains made from the sale of registered shares that was subsequently repealed in 1996)
February 1994	A Presidential Decree introduced a Harmonized Customs Tariff System, so that Egypt's tariff regime follows that of most other countries in the world
March 1995	Law 11 of 1995 abolished stamp duties on share holdings and share transactions of all companies
July 1996	Law 227 of 1996 abolished the Inheritance Tax

When the Public Finance Administration Project was in the process of being launched in August 1989, in discussions with Minister Razaz, he made clear the GoE's intentions to introduce a general sales tax in Egypt as soon as possible He further indicated that he would expect to rely heavily upon the PFAP for extensive support in moving this major initiative forward To his credit, he recognized the value that international advisors could add to this important initiative The Minister's announcement immediately shifted the planned focus of the project The original plan, consistent with the USAID project design, was to focus first on income tax reform and then on sales tax reform Based on the discussions with the Minister, the timing of the project focus was reversed, and USAID supported this shift quickly and enthusiastically by modifying the contract that was then in the process of being finalized with Barents Group, so that the sales tax initiative could be fully supported

Barents Group's efforts to support sales tax reform in Egypt were led by Dr Richard Bird, who had been involved in the introduction of indirect tax reforms in many countries around the world At the policy level, he was supported by work that was done by Drs John Due and Sijbren Cnossen, whose experience in the area of indirect tax reform were equally impressive In the area of tax administration, Barents provided several highly experienced VAT and sales tax administrators with extensive international experience including Mr James Setter (resident advisor), Mr Gordon Cox, Mr Derek Fellingham, Mr Arthur Morrow, Mr Ken Stacey, and Mr Ken Thwaite Finally, Barents Group provided a team of analysts and modeling professionals, led by Mr Fran Greaney, Ms Rita Melhem, Dr Steve Galginaitis, Dr Sergio Madrigal, and Dr Lorris Mizrahi to develop a comprehensive model for analyzing the economic and revenue effects of indirect tax reform This model was completed in the spring of 1990 and used extensively thereafter in analyzing the revenue, distributional, and economic effects of alternative indirect tax policies (This modelling effort is discussed in detail in the following chapter)

As noted earlier, an October 1989 mission to Egypt evaluated the overall policy landscape for all taxes in Egypt This was quickly followed by two separate detailed analyses of the organizational structures and administrative procedures within the Consumption Tax Department and the Customs Department (which would ultimately collect over half of all sales tax revenue) These studies resulted in separate project reports that were finalized in January 1990

- Mr Gordon W Cox and Arthur C Morrow, "Survey of Indirect Tax System," and
- Mr Kenneth Stacey, "Survey of Customs Administration in Egypt "

These initial efforts, together with the data collection and modelling work that was initiated at the same time, provided the foundation on which substantial further work was done Subsequent formal project team reports that contributed to the planning for future sales tax reforms, and extension of the sales tax to the wholesale and retail level included

- Dr John F Due, "The Role of Excises and Related Taxes in the Indirect Tax Structure of Egypt," July 1991,
- Dr Sijbren Cnossen, "Completing the Move to a Value-Added Tax in Egypt," March 1992,

- Dr Darwin Johnson, Mr James Setter and Mr Derek Fellingham, "Sales Tax Implementation An Internal Review," March 1992
- Drs Donald J S Brean and Dr Richard M Bird, "Taxation of Tourism in Egypt," April 1992, and
- Dr Jorge Martinez, "Trade and Tax Policy in Egypt," June 1992

From the outset, Minister Razaz, Commissioner Ahmed Abd el Radi, and his newly-appointed Deputy, Mr Mahmoud Ali, recognized the magnitude of the sales tax reform process that was being initiated They established an organizational structure and process to address all of the issues critical to assuring successful implementation of a new sales tax Under the day-to-day direction of Mr Mahmoud Ali, a dozen committees were established and staffed to focus solely on implementation of a new sales tax These committees, which were generally led by senior officials in the Consumption Tax Department, are shown in Exhibit III-2, together with the names of all committee participants

The project team worked closely with each of these committees Much of this support is discussed in Chapter IV, which discusses the modelling work performed, and in Chapter V, which describes the project role in supporting sales and income tax administrative reforms This chapter, consistent with its focus on policy reform, describes the project team's work in developing the structure, legislation, and supporting decrees of the new tax

PREPARING THE LEGISLATION

The drafting of legislation and Ministerial Decrees was an ongoing process over the period of nearly a year Minister Razaz took a major direct role in this effort, using draft legislation prepared by the IMF advisor in 1978, legislation from other countries, and extensive materials developed by the project team in support of the legislative drafting effort By the time it was finalized, the legislation had gone through seven major drafts

The overall recommendations of the project team regarding the structure of the tax were designed to outline what it believed to be the optimal sales tax for Egypt, recognizing that political and other factors were likely to result in at least some deviations from those recommendations The basic outline of the sales tax recommended by the project team can be summarized as follows

- Impose a single-rate tax, which would be the most neutral in terms of its economic effects, and the simplest to administer
- Make the tax broad-based, covering as many goods and services as possible
- Use the invoice-credit approach, which has proved the most successful around the world, for administering the tax
- Provide for zero-rating of exports, so that exports do not bear the tax, thereby allowing Egyptian exporters to compete fairly in the global marketplace

Exhibit III-2
SALES TAX IMPLEMENTATION COMMITTEES

Coordinations & Planning Committee
Salwa Abd el Raouf*
Hamdy El Marzouky
Abd el Wehab El Akby
Nabil Abdin
Samir Anwar
Abd el Hafiz Salamma
Mohamed Zahran
Ezzat Ibrahim
Abd el Nabi Mohamed

Registration & Survey Committee
Ramsis Gobran*
Nabil Abdin
Ahmed Abd el Wahab
Samia Abd el Aziz
Magda Khalil

Special Commodities Committee
Tallat Taher Hassan*
Mohamed Reyad El Massry
Hussien Hamed Abd el Ghany
Saleh Mohamed Khalil
Mohamed Abd el Azim Soliman

Training Committee
Ramadan Mostafa*
Ali Salem

Organization Committee
Laila Zaki Mohamed*
Fayza Fouad
Reda Saadan Ibrahim
Mohamed Ali Abd el Fatah
Adel Ibrahim Mohamed
Fawzy Abbas

Customs Coordination
Naguib Farag*
Ali Hafez

Economic Analysis
Sanaa Anwar*
Suzan Abd el Hak
Amal Nour El Din
Mona Soliman
Gamalat El Sayed Shaker
Ahmed Helaly
Hassan Youssef Ibrahim
Sohir Mohamed Amar
Magdi Shehata Hanna

Information Committee
Elham Mahmoud Azmy*
Wafaa Abd el Azim
Alaa El Din El Sayed
Reda Saadan
Lalia Abd el Hafez
Nagwa Ahmed Taher
Esmat Ali Hassan

Forms Committee
Mohamed Mahrous*
Ahmed El Safty
Farouk Ismail
Hakim Michail
Abd el Rahman Mohamed Abd el Rahman

Computer Committee
Yoursria Atia Hebesha*
Adel Mohamed El Hagrasy
Alaa Abd el Baath Risk
Mohamed Ismail Ibrahim
Rafaat Mohamed Khalifa

Law Committee
Mohamed Rabee Moursy*
Abd el Galil Radwan

Procedures Committee
Mohamed El Ghoniemy*

Finance & Administration
Mahmoud Geith*
Fikry Bolus
Ragaa Abd el Monsef

Translators
Salwa Abd el Raouf*
Hakim Michael
Nagwa Ahmed Taher
Vivian Ahmed Fouad
Hisham Ismail
El Sayed Mahmoud
Iman Mohammed Hassan

Publicity Committee
Salwa Abd el Raouf*
Hakim Michael

* Committee Leader

- Provide for full input tax crediting including capital goods, so that the sales tax does not cascade
- For purposes of administrative ease for the GoE and the business community, provide a threshold, measured in terms of turnover below which businesses of limited size do not have to register under the sales tax system

Over the year during which the legislation was being drafted, the project team met with Minister Razaz on a number of occasions to discuss different aspects of the proposed law and to present empirical analyses of different alternatives From these discussions the general framework of the General Sales Tax emerged Critical decisions made by the Minister during this period included the following

- The tax would be introduced in three stages, first on manufactured and imported goods, and then extended in separate stages to the wholesale and retail levels, respectively This approach had the advantage of capturing a high percentage of the total tax revenue that would be generated from a tax applied through to the retail level, while it reduced significantly the number of businesses to be administered under the new tax
- After reviewing international experience, and assessing the invoice-credit mechanism and an alternative "ring" system, the Minister selected the invoice-credit mechanism because of the administrative advantages it offered
- The tax would have more than one rate because, in order to meet the GoE's revenue requirements from the new tax, the single tax rate was judged by the Minister to be too high and potentially burdensome on low-income consumers
- Capital goods (and many other business inputs) would not be fully credited, for fear that businesses would abuse the full crediting provision, resulting in tax evasion and revenue loss to the GoE
- A turnover threshold was established at LE 54,000, below which manufacturers (other than those who produced Table 1 commodities as described on the following page) did not have to register for the sales tax This greatly reduced the number of businesses that had to be administered under the new tax without significantly eroding the tax base

After intensive discussion, analysis, and preparatory work, the General Sales Tax Law, Law No 11 of 1991, was signed by President Mubarak on April 28, 1991 and sent to the People's Assembly where it was enacted into law effective May 3, 1991

OVERVIEW OF THE GENERAL SALES TAX ENACTED IN MAY 1991

The new General Sales Tax (GST), while it did not adopt all of the features recommended by the project team, represented a reasonable compromise in virtually all respects, in view of the political and practical considerations that had to be faced It was, without question, a major step forward for the GoE in introducing a major fiscal reform that would help in a significant way to address some of the major economic and fiscal problems that the country faced

The new sales tax was implemented in three stages, as described above Accordingly, under the first stage all locally manufactured goods (with the exception of those produced by small business below the turnover threshold), all imported goods and selected services were subject to the tax Extensions to the wholesale and retail level are permitted without further legislation, by issuance of a Presidential Decree Nevertheless, as noted later in this chapter, the GoE is seeking to extend the tax to the wholesale and retail level through legislation rather than through the issuance of a Presidential Decree

- The legislation adopted the tried and tested invoice-credit mechanism that has been used successfully by many other countries Unlike under a full value-added tax, however, only sales taxes paid on inputs that are embodied in the final product (raw materials, parts, etc) are creditable against the sales tax liability of a registered person The taxes paid on capital goods, overhead expenses, Table 1 commodities, and services are not creditable In the case of capital goods, the Sales Tax Department established a provision whereby the tax on capital goods since it was not creditable, could be paid by installments over a ten-year period
- The legislation adopted had four positive rates The so-called standard rate was set at 10 percent, and applied to the majority of goods subject to tax There was a reduced rate of 5 percent for a limited number of selected goods and services, and higher rates of 20 and 30 percent on two separate categories of luxury goods Certain basic goods (mainly basic foods) were exempt from the GST
- Exports were zero rated, so that Egyptian exporters were not disadvantaged in competing in the global marketplace
- Table 1 of the law established separate rates on certain commodities, including alcoholic beverages, tobacco, petroleum products, sugar, soft drinks, tea, vegetable oil, and cement These taxes on "Table 1 Commodities" are a carry over of excises from the prior Consumption Tax law, and in most respects have properties similar to those of excises in terms of their application under the new law

The success of this tax reform initiative can be measured in part by assessing its effects in terms of revenue productivity, fairness, and neutrality relative to the tax that it replaced The discussion below discusses the GST from each of these perspectives

- *Revenue productivity* The large fiscal deficit that Egypt faced as it entered the 1990s required that revenue levels be maintained or increased The GoE could not put at risk its fiscal position as it moved forward with indirect tax reform, which almost certainly influenced their decision on certain tax structure issues, most notably the decision not to allow input tax credits on capital goods Based on the project team's indirect tax model, the new tax was estimated nearly double indirect tax revenues in the first full year of operation A review of actual sales tax collections, which shows that sales tax revenues increased from LE 3,373 million in 1990-91 to LE 6,324 million in 1991-92 suggests that this was an accurate assessment The analysis also suggested that the elasticity of the tax, that is, its responsiveness to changes in growth in nominal incomes, was also increased significantly In effect then, the new tax was expected to produce both a large initial increase in indirect tax revenues *and* an increase in the rate of growth of indirect tax revenues over time

- *Fairness* The design of the tax rate and tax base structure gave emphasis to distributing the sales tax burden in an equitable manner This was reflected in the structure that was ultimately enacted, which exempted basic necessities or taxed them at a preferential 5 percent rate, and which taxed luxury goods at two to three times the standard 10 percent rate Analyses using the indirect tax model demonstrated that the rate and tax base structure adopted by the GoE produced a distribution of the sales tax burden that was mildly progressive when measured relative to household consumption The distribution of the Consumption Tax, in contrast, was regressive when measured the same way This distributional analysis was a critical factor in the decision-making process, and one to which the Minister was highly sensitive throughout the legislative drafting process

- *Neutrality* There were several ways in which the new sales tax was more neutral in its economic impact on the economy First, the tax was broader-based, with most manufactured goods and all imports subject to tax Second, while cascading of taxes was not eliminated, analysis using the indirect tax model indicated that it was significantly reduced Finally, imported goods were taxed under the new law on a par with domestic goods, effectively eliminating the inherent protectionist features built into the prior Consumption Tax

The implementation of the GST also raised issues about its inflationary impact, since prices, inclusive of tax, were expected to be higher after enactment of the tax by 3 to 4 percent, based on estimates using the indirect tax model Barents developed for the GoE Based on the experiences of other countries that had introduced a broad-based sales tax, however, there was every reason to believe that this would be a one-time increase in the price level Indeed, longer-term, there was reason to expect that the rate of inflation would, if anything, be reduced because the GoE's fiscal position would be significantly improved This in fact appears to be exactly what happened, as evidenced by the fact that inflation has dropped significantly, after the initial one-time rise in 1991/92 since introduction of the tax

SALES TAX REFORMS AND CHANGES SINCE 1991

As noted in the introduction to this chapter, the General Sales Tax base has been expanded somewhat since enactment in May 1991 to include more services, and the rate structure has been modified

- *Expansion of the base* In March 1992, the sales tax base was expanded to include telecommunications services and "contracting of services to others " In July 1993, car rental services, quick mail services, road tolls, and security clearance services were added to the sales tax base In February 1994, the base was expanded further to include services for the sale of realty and vehicles

- *Modification of the rate structure* In March 1992, the rate schedule on Table 1 commodities was simplified and consolidated In July 1993, the two top rates on luxury goods of 20 and 30 percent were consolidated into a single rate of 25 percent In February 1995, the sales tax rate on all cars was increased by 5 percentage points, thereby creating a 15 percent rate category for lower-valued cars and a 30 percent rate category for luxury cars Finally, in September 1996, the sales tax rate on luxury imported cars was increased further, from 30 percent to 45 percent These changes leave the current system with five positive rates 5, 10, 15 25, and 45 percent

Perhaps more important than the sales tax reforms that have been introduced since 1991 is the fact that the Department has made extensive preparations for the extension of the GST to the wholesale and retail level As a result of extensive discussions with the project team, Minister Razaz made the decision, subject to later legislative ratification, to extend the sales tax to the wholesale and retail trade level in a single step, rather than two steps, as originally envisioned in the law This decision, which was recommended by the project team, was subsequently, endorsed by Minister El Gharib and appears to remain as the general plan for extending the sales tax under the current Government

It is the judgment of the project team that the Department will be prepared to administer the broader-based tax when it is introduced, because of the extensive preparations it has made, but that it would benefit from further technical assistance during the critical period of implementation It is also the judgment of the project team that the extension of the tax, properly structured and introduced, would represent another significant positive step forward in improving the GoE's fiscal system

FUTURE REFORMS

The single major reform that remains to be implemented, as referenced above, is the extension of the GST to the retail level This further reform, when it occurs, will represent another major step forward for Egypt in the major overhaul of its tax system that the GoE initiated beginning in 1991

At the close of the project, three interrelated pieces of legislation, which the Government intends to have enacted simultaneously, were pending before the People's Assembly

- One draft law would extend the GST to the wholesale and retail level
- A second draft law would provide for full crediting of capital goods It is the project team's understanding that this draft law would be interpreted in such a way that all input taxes would be creditable under the GST
- A third draft law would increase the registration threshold for businesses from LE 54,000 to LE 200,000 This law would constrain the increase in the number of businesses subject to the GST at the time of expansion, making the expansion much more manageable for the Department Firms that are currently registered, and that have sales of less than LE 200,000, would continue to be registered for some transition period This would avoid the Department having to address both significant numbers of registrations and de-registrations simultaneously

At the time that the extension of the GST is introduced, it would be desirable for the GoE to look at the existing structure of the GST to see what other structural changes in the GST might be introduced at the same time, in addition to those described above Issues that deserve consideration include

- Reducing the number of tax rates to simplify administration and provide a more neutral tax,

- Eliminating some or all of the "Special Agreements" that were entered into at the time the GST was introduced to facilitate certain industries' ability to comply with the tax,
- Modifying the list of items in "Table 1 Commodities' to treat those that are traditionally as excises (such as alcohol, tobacco, and gasoline) as such and moving all others under the standard GST provisions, and
- Moving to a bi-monthly filing period, instead of monthly, to simplify compliance and administration

INCOME TAX REFORM

PREPARING THE REFORM PROGRAM

Unlike the effort that accompanied the introduction of the Sales Tax, the process that was followed for developing a comprehensive income tax reform program followed the more lengthy and deliberate process that was envisioned when the project was designed and implemented Work began in October 1989 when the diagnostic review of the Egypt tax system occurred and continued on a steady basis through the summer of 1991, culminating in the presentation of a project team report entitled "A Comprehensive Tax Reform Program for Egypt " As outlined below, by this time the project team was heavily engaged in discussions with Minister Razaz on tax reform issues and options for Egypt

The policy reform effort was initiated under the general guidance of Dr Richard Bird, who took the lead role in establishing the research agenda for the project After completion of the original diagnostic review in October, a research agenda was prepared for analyzing all the major direct (and indirect) tax reform issues that were critical to developing a comprehensive reform program At the same time, the data needs for the policy reform were identified and an extensive data collection effort was mounted

The research agenda for the project was executed by a combination of Barents' International Advisory Board members (of which Dr Bird is a member), public finance specialists with expertise in particular areas of taxation, and Barents Group resident and home office professionals A substantial number of formal project reports were prepared as a result of this effort Those related to indirect taxation were referenced above, those related to direct taxation included the following

- Dr William Fox, "Estimating and Tracking Revenues in the Ministry of Finance," January 1990,
- Drs James Alm and Darwin Johnson, "Analysis of Taxes on Wages and Salaries in Egypt," January 1990,
- Dr Daniel Holland, "Property Taxation in Egypt ' May 1990,
- Dr Matthew Murray, "Taxation of the Hard to Tax Sector," September 1990,
- Dr George Zodrow, "Marginal Effective Tax Rates on Capital, November 1990,

36

- Dr Charles McLure, "Tax Policy in a World of State Ownership and Economic Distortions The Egyptian Case," June 1991,
- Dr Cedric Sanford, "The Taxation of Wealth in Egypt," June 1991,
- Dr George Zodrow, "Issues in the Taxation of Capital Income in Egypt " June 1991,
- Dr Guillermo Perry, "Petroleum and Public Finance in Egypt," August 1991,
- Dr Richard Adams, "The Taxation of Agriculture in Egypt," October 1991,
- Dr George Zodrow, ' Investment Incentives in Egypt," February 1992,
- Dr Donald J S Brean, "International Aspects of Taxation," April 1992,
- Mr W M P Weerasinghe, "The Mobile Capital Revenue Tax," April 1992, and
- Mr W M P Weerasinghe, "The Addition and Discount System," April 1992

These studies, together with a considerable body of information that was accumulated by the team of resident advisors and other short-term advisors and the quantitative analyses that resulted from the project team's data collection and modelling work, provided the foundation for developing the project team's major report "A Comprehensive Tax Reform Program for Egypt," which was completed and transmitted to Minister Razaz and USAID in October 1991 This report was presented in a red binder and become informally known and referred to as "The Redbook," accordingly, it is referred to as such below

"A COMPREHENSIVE TAX REFORM FOR EGYPT"

As this research agenda was completed, the development of the income tax reform program that emerged from this research was led by Dr Harvey Galper, with considerable input from Drs Richard Bird Jerry Brannon, and Darwin Johnson, among others All of the architects of the reform had extensive prior experience working on tax reform projects in other countries

The Redbook was designed as a series of individual papers on selected tax reform issues, the sum total of which covered the gamut of policy and administrative reforms that the project team considered of importance in designing a comprehensive tax reform program The preparation of the individual papers had to be integrated into a single whole, and there was necessarily some iteration as work in one area prompted rethinking of issues in other areas But the team of advisors working on the program had worked together closely before, so that this did not create a problem

Each individual paper in the Redbook was, by design, relatively brief, usually two to four pages single spaced, and included three sections (i) background, (ii) analysis, and (iii) recommendations The brevity of the papers was considered important because the objective was to engage the Minister and other GoE officials in a policy level review not to overload them with a multitude of large studies Stated only slightly differently, the objective of the project was meaningful reform not a description thereof Each paper was translated into Arabic to facilitate the GoE review of the project team's recommendations

37

This process of developing individual papers had a further significant benefit in that it allowed the project team to engage the Minister much earlier in the process, as groups of individual papers were prepared, rather than having to wait until the full program was completed and presented While this process had some drawbacks – the Minister did not have the benefit of seeing the whole program when he was first reacting to individual draft components of it – the end result was highly favorable The project team was able to get periodic input from the Minister earlier in the process than would otherwise be the case, and have the benefit of his views and thoughts about what would and would not be feasible in Egypt While this process added further substantive input to the development of the reform program, it is fair to say that it also got the Minister actively considering the issue of income tax reform sooner and may have accelerated the process by which reform was ultimately introduced

The Redbook totaled 252 pages and consisted of two major Parts Part I provided an overview of the Program that included four major sections

- *The Economic and Fiscal Setting* This section outlined, much as Chapter II of this final report does, the context in which the comprehensive review program was developed
- *A Summary of the Recommendations* This section outlined the objectives of the reform program, the general strategy for achieving the objectives, and a summary of the reform program
- *The Revenue and Distributional Effects of the Program* This section presented the revenue and distributional effects of the program, and the analytic basis that had been developed by the project team for developing these estimates
- *Organizing for Reform* Recognizing that the objective of the project was actual reform, rather than just a description thereof this section presented an agenda for action to implement comprehensive reform

Part II of the Redbook presented the detailed recommendations for reform in a series of papers, as described above, covering individual and corporate income taxes, sales and excise taxes, stamp duties, property taxes, the inheritance tax, and customs duties A significant section of this part of the report also addressed the legal framework (penalties, appeals, filing requirements, etc), the administrative infrastructure, and operations Appendix III-A at the end of this chapter presents the full outline of the Redbook, since it reflected such a major part of the early work of the project and was a catalyst to many of the policy reforms that followed

The Redbook charted a course for a complete overhaul of the Egyptian tax system, including individual income taxation, corporate taxation, further sales tax reforms beyond these introduced in 1991, stamp duties, property taxes and other miscellaneous taxes The policy recommendations contained therein included the introduction of a global income tax to replace the existing income tax system, significant reductions in tax rates accompanied by substantial broadening of the tax base, and substantial improvement of the legal framework, operations, and the administrative infrastructure The major individual and corporation income tax reform

38

recommendations that were recommended in the Redbook can be relatively briefly summarized as follows

- *The rate structure* The basic recommendation was to replace the complex, inequitable and overlapping set of income tax rates applicable to individuals and unincorporated businesses with a single schedule applicable to income from all sources The existing schedular taxes, the state resources development duty, and the proportional stamp tax on the wages and salaries of government and public sector employees, were proposed to be integrated into a single schedule of rates The general income tax would be abolished The higher marginal tax rates would be reduced considerably as would be the number of tax rate brackets An upper tax rate of 30 percent on incomes above LE 10,000 was proposed

  It was recommended that the rate of tax for corporations should be aligned with the upper rate for individual income tax and that the use of preferential rates for manufacturing and exporting industries be eliminated Dividend payments by corporations would be taxed only once, at the corporate entity level

- *Family burden exemption amounts* The family burden exemption, or the tax free level of income, is a key element of any individual income tax system It protects low-income families and removes from the tax rolls a large segment of the population that would otherwise clog the system of tax administration with little consequence to overall tax collections It was recommended that there be an increase in the exemption to a range between LE 3,000 (single person) to LE 4,000 (married man with children) The increase would be introduced immediately for wage earners and be phased in over time for the self-employed

- *Personal deductions* Amongst the aims of the global income tax was broadening of the tax base, simplification and elimination of tax breaks that favored particular classes of taxpayers It was thus recommended that a wide range of personal deductions be eliminated, with taxpayers being compensated through the increased family burden allowance and reduced tax rates Similarly, it was recommended that a number of deductions and exemptions applicable to the computation of taxable income from self-employment be abolished

- *Wage and salary tax exemptions* The tax base for wages and salaries under the schedular tax was eroded by about 50 percent through a broad range of exemptions and special provisions Production incentive pay, presidential bonuses, special allowances, social allowances based on family size, allowances for judges, university employees and certain other workers, and allowances for representation, travel clothing, housing and meals were not taxable It was recommended that the exemptions and allowances be withdrawn

- *Interest income* Most interest was exempt from tax, notably interest from banks and government bonds At the same time a deduction was given for interest paid by business enterprises This resulted in erosion of the tax base and distortions in market choice It was recommended that the asymmetry in the treatment of interest received and interest paid be removed, preferably by taxing interest received

- *Depreciation allowances* It was proposed that the existing system be replaced with a modern system involving fewer asset classes, accounting for asset groups rather than individual assets, and an open ended declining balance method of granting allowances The objective of these recommendations was to simplify the system of depreciation allowances make it more comprehensive, and increase taxpayer certainty as to allowances due

♦ *Tax holidays* Tax holidays were not an effective method of promoting investment and they resulted in a very substantial erosion of the tax base It was recommended that investment incentives be avoided to the fullest extent possible, and consistent with that view, it was recommended that no new tax holidays be granted and that existing tax holidays be phased out The substantial revenue savings from these base broadening measures could be returned more broadly to businesses through lower tax rates, which would have their own positive impact in promoting investments

♦ *Other special business preferences* It was recommended that deductions for a notional imputed rent on business premises and the deduction in respect of paid-in-share capital (described in Chapter II) be abolished

♦ *Taxation of financial institutions* The taxation of bank interest, as recommended, would have the effect of removing distortions in capital flows It was also recommended that financial institutions not be given tax holidays, and that banks be allowed more generous bad debt reserve deductions

♦ *Payment of tax liabilities* A number of recommendations were made with the aim of improving payment compliance and accelerating the collection of tax revenues These included

◊ Not requiring taxpayers whose only source of income was a wage or salary taxed at source to file a return,

◊ Replacing the system of Discounts and Additions by a system of estimated current tax payments,

◊ Charging interest on delayed tax payments from the original due date for payment, even if the tax was agreed or assessed later than the due date,

◊ Charging a commercial rate of interest on overdue tax,

◊ Applying an adequate penalty for late payment of tax, and

◊ Streamlining of the appeals system to prevent delays in settlement of liability

♦ *Penalties* A large number of detailed recommendations were made with the aim of making the penalty structure more effective in deterring non-compliance The major thrust of the recommendations was twofold that the penalty be adequate in size to have a deterrent effect and that most penalties should be automatically enforceable rather than needing to be pursued under criminal law

In addition to income tax reforms, the Redbook included recommendations to reform other taxes as well These other reforms included

♦ *Stamp duties* Stamp duties are considered by most public finance practitioners and tax administrators to be archaic and ill-suited to a modern system of taxation The stamp duties in Egypt were often only one of a number of taxes levied on the same transaction They tended to distort economic activity, especially when applied to shares and financial paper, and the

40

procedure of affixing a stamp on each check or business document represented a time consuming and costly nuisance to taxpavers They were thus inimical to the goal of promoting economic development and it was recommended that they be abolished

- *Inheritance taxes* The inheritance tax generated very little revenue and was too insignificant to achieve any economic or social purpose It was recommended that it be completely restructured
- *Property taxation* The property tax was judged to be an underutilized tax resource in Egypt that raises relatively little money It was recommended that the GoE should begin the process of shifting the property tax to being an autonomous revenue source of local governments, revalue property every three to five years, rather than every ten years as under current law, and that the base of property taxation be expanded by limiting exemptions that exist under current law
- *State Financial Resources Development Duty* This duty, consisting of sixteen separate and distinct duties, includes duties on income, sales, licenses and permits and stamp taxable activities One duty, on local purchase of tickets for travel abroad, is earmarked for the Ministry of Tourism for the development of tourist activities, the rest go to the public treasury The duties levied under this tax are duplicative of other taxes and fees, accordingly it was recommended that it be abolished
- *Social Solidarity Tax* This is a tax on work permits for Egyptians working abroad and working on foreign projects in Egypt and on certain entertainment consumption This tax is also duplicative of other taxes and fees, and it was recommended that it be abolished

THE POLICY REFORM PROCESS

In Egypt, as in many countries, the debate on sensitive policy issues is confined to the very top officials in the Government The sensitivity of the project team's work on tax reform is reflected in the fact that, initially, the distribution of the Redbook was limited to the Minister and through him, to a limited number of his most trusted associates Any discussions of policy reform based on the Redbook, took place at the Minister's office and in his presence All the project team recommendations, and the discussions thereof, were considered highly confidential At no time during this process did anyone from the project team discuss any of the Redbook issues or recommendations with anyone other than the Minister or his designees

A series of meetings were held with the Minister over a period of approximately three months, during which all of the recommendations in the Redbook were discussed During this important period, the project team worked with a high degree of independence in serving as the Minister's advisors on the highly sensitive issues that were being discussed There was participation and support, but not interference, from USAID The Minister was aware that the project team was acting as his personal advisors and that the advice he was receiving was impartial This was, we believe, an important contributor to the overall success of the policy reform effort

At the conclusion of the initial policy dialogue on the full set of project team recommendations, which occurred in December 1991 the Minister appointed a tax reform committee to review and discuss the recommendations The Minister himself was the chairman of the Committee, which was comprised primarily of the USAID Project Officer and senior officials from the Tax

41

Department and the Ministry of Finance (though there was periodic participation by senior officials from the Sales Tax Department)

From the overall list of Committee members a series of sub-committees was established to review subsets of the broad range of issues raised by the project team Because of concerns about the sensitivity of the issues being discussed it is worth noting that no sub-committee member had a copy of the Redbook or an understanding of the entire program As a result, each sub-committee was responding to individual recommendations without an understanding of how these individual recommendations fit within the overall program This shortcoming, together with the fact that many of the Committee members had "lived" with the existing provisions of the income tax for many years, reduced their receptivity to the recommendations that were made Even when there was less than full success in persuading sub-committees of the merit of the project team's position, the seeds of reform were planted, and senior tax officials began to gain an understanding of a perspective different from their own

The sub-committees, including the project team members associated with it, would periodically report back to the full committee, inclusive of the Minister, and further healthy debate would often ensue In some cases, the Minister would make his decisions clearly known to the participants, in other cases he would keep his own counsel, either because he considered the decisions sensitive, or he wanted to consider the issues further This process continued for virtually all of calendar year 1992 During 1993, the discussions were less frequent as the GoE developed its own internal tax reform plan In December 1993, the Global Income Tax was announced and put before the People's Assembly and passed, effective in January 1994

With enactment of the law, the role of the project team shifted, from acting as a catalyst to reform as a policy analysis resource to the Minister, to supporting the implementation of the new law The new law stipulated that the governing regulations were to be issued by the beginning of April 1994, giving the Tax Department a relatively short period of time to develop the administrative infrastructure for the new law In order to assist the Department in this important effort, the project team worked with advisory committees appointed by the Commissioner, comprised of Tax Department managers, to help develop the necessary supporting materials The nine committees that were established, in line with prior project team recommendations, were as follows collections, examinations, tax withholding, forms, procedures and manuals, organization, publicity, training, and computerization At least one member of the project team was assigned to work with each of these committees The panel of senior officials from the Tax Department with whom the project worked, and their areas of responsibility within the Tax Department, are shown in Exhibit III-3 The Commissioner himself sometimes participated In his absence, the discussions were led by Mr Samir Hussein

Throughout the early months of 1994, the project team worked with the advisory committees on a regular basis, sometimes meeting a particular committee on a daily basis, when that committee's work was reaching a critical stage Advice provided by the project team covered subjects such as

- The format of a new income tax return
- Simplification of forms and procedures in the Discounts and Additions system,

- Assistance to employers responsible for tax withholding from wages
- The interaction of new and remaining legislative provisions,

Exhibit III-3
TAX DEPARTMENT TAX REFORM COMMITTEE

Fathi Abd El Baki	Commissioner
Mohamed Nour El Din	Commissioner's office
Yehia Nour El Din	Stamp Research
Badr El Gazeri	Tax Region
Samir Hussein	ADP/Training
Abd El Fattah Dawidar	District Office
Hamdi Radwan	Wage Tax
Zeinab Abu El Wafa	Wage Tax Auditor
Mona Kasim	International Agreement
Mohammad Ismail	Corporate Office
Lutfi Abd El Wahab	ADP
Hasan Heikal	Corporate Office
Sawsan Abd El Galil	Representatives
Murad Mustofa	Representatives
Ragab Desouki	Investment Office
Mohammed Seif	Planning

- Application of the new tax rates, and
- Training in preparation for implementation

While the project team was able to actively participate in discussions on these and many other subjects, the actual drafting of the final forms, regulations and procedures was done in secrecy by officials from the Ministry of Finance and the Tax Department The project team was not able to review or comment on drafts of these materials (unlike with the development of the supporting materials for the GST) until they were finalized and made public

AN OVERVIEW OF THE GLOBAL INCOME TAX

The Global Income Tax, Law 187 of 1993, was at one and the same time a major step forward in the evolution of non-corporate income taxation in Egypt and a much smaller step forward than had been hoped for, at least by USAID and the project team, at the outset of the project Corporate taxation, was not addressed in the legislation, and there was very little broadening of the tax base The positive contributions of the legislation, which effectively outline the scope of the law, can be summarized under four headings the rate structure increases in the family burden allowance, ease of administration, and other changes

- *Simplified and less confiscatory rate structure* Under the previous law, as noted in Chapter II, separate rate structures applied to (i) wages and salaries, (ii) commercial and industrial profits, (iii) professional income, and (iv) mobile capital revenue All types of income were also subject to a separate general income tax There are several ways in which the tax structure was simplified as outlined below

◊ The overlapping general income tax, with its 22 different rates, was eliminated There is, therefore, only a single set of rates applicable to each income source

◊ Commercial and industrial profits, and professional income, which were previously taxed under separate rate structures, are taxed at the same rates, and without the supplementary General Income Tax

◊ The rate structure for the majority of wage earners is a flat rate tax of 20 percent, though wages and salaries over LE 50,000 are taxed at 32 percent Under prior law, the wage tax had 6 brackets

◊ Mobile capital revenue continues to be taxed at a flat 32 percent rate, but it is no longer subject to the general income tax

◊ Prior to the new law, employees who had a second job (mainly public sector employees) had paid tax at a reduced rate of 5 percent on their secondary income Under the Global Income Tax law, tax on a second income is now charged at the standard rate on wages and salaries of 20 percent

◊ Top marginal tax rates were greatly reduced from the confiscatory levels that prevailed when the schedular and general income tax rates were combined, as shown below

Top Marginal Rates[4]

	Prior Law	New Law
Commercial and industrial income	78%	48%
Professional income	74%	48%
Mobile capital income	75%	32%
Wages and salaries	71%	32%

♦ *Increased family burden allowances* The family burden allowances were doubled, from LE 720 to LE 1440 for a single taxpayer, from LE 840 to LE 1680 for married couples and heads of household, and from LE 960 to LE 1920 for married taxpayers with families These increases eliminate tax for many low-income taxpayers and families, and reduce disproportionately (in percentage terms) the tax owed by low- and middle-income families that are above this tax threshold

♦ *Ease of administration* The new rate structure simplified the burden of compliance of taxpayers and eased administration for the Tax Department in a number of ways

◊ *Reduced number of taxpayers* The increase in the family burden allowance eliminated an estimated 3 million low-income taxpayers from the tax rolls (project team model estimates), which greatly simplified administration of the income tax

[4] These top marginal tax rates combine the the schedular tax rate the General Income Tax and the Development Duty but adjust for the fact that the schedular tax and the Development Duty are deductible under the General Income Tax

44

◊ *Greater reliance on withholding* With the elimination of the General Income Tax, all income tax on wages is collected through withholding Previously General Income Tax had to be collected through returns

◊ *Consolidation* The consolidation of non-wage income onto a single return, filed in a single district office, reduced the ability of taxpayers to evade tax by hiding income, counting deductions twice etc

♦ *Other changes* There were three other changes that represented improvements in the income tax structure in Egypt

◊ *Taxation of dividends* Abolition of the General Income Tax had the result that dividend income is now taxed only once, at the corporate level, as recommended by the project team

◊ *Limited base broadening* The General Income Tax provided a deduction for interest on loans taken to purchase private property and consumer durables Abolition of the General Income Tax eliminated this deduction

◊ *Interest on unpaid tax liabilities* Interest due on unpaid tax was increased to the Central Bank base rate, a far more realistic interest charge than was previously the case

Notwithstanding the positive aspects of the Global Income Tax, as outlined below, there was a sense of "opportunity lost" in not accomplishing more with this important legislation An internal project team assessment at the time suggested at least three important areas where major recommendations in the Redbook were left unaddressed by the Global Income Tax

♦ *Coverage of the legislation* The Global Income Tax addressed only non-corporate income taxes Corporate income taxation, including the important issue of tax holidays, was left for another day (and, as outlined below, some actions have occurred subsequent to enactment of this law) Stamp duties were also not addressed

♦ *Base broadening* With very limited exceptions, there was no base broadening in the new law Interest income remained untaxed to the recipient and deductible to the lender Previously existing deductions and credits were retained Since tax rates were reduced and the family burden allowance was increased, the fact that the tax base was not broadened meant that income tax revenues were reduced significantly by the legislation (which was supported by project team empirical analyses at the time)

♦ *Simplification of administration* Recommendations to transition away from the cumbersome Discounts and Additions system to an estimated payments system were not taken Nor were recommendations to eliminate separate taxes that overlap with the income tax and are income taxes in all but name (stamp tax on wages of public sector employees and the 2 percent Development Duty on incomes over LE 18,000)

INCOME TAX REFORMS AFTER INTRODUCTION OF GLOBAL INCOME TAX

The GoE indicated publicly and privately its intention to continue with tax reforms after enactment of the Global Income Tax While extension of the GST to the wholesale and retail level was thought to be the top priority of the Government after enactment of the Global Income Tax, reform of corporate income taxes was also on the priority list of reforms to pursue Such reforms were relatively slow in coming, until 1997 when the pace of reform accelerated The only two policy reforms of note in 1995 and 1996 were

- *Finance leasing* Finance leasing is a major activity for many financial institutions It provides a means of funding new direct investment in the private sector that might not otherwise be available to smaller, or even large, concerns At the same time, it helps strengthen the financial sector and allows it to diversify into new branches of business Law 95 of 1995 exempted the profits of a financial lessor from tax for a period of five years, thus encouraging the development of this new industry

- *Mutual funds* Despite the abolition of the General Income Tax, dividend income passing through mutual funds continued to be taxed twice, first as the income of the corporation in which the fund invested and second as income of the fund that itself was treated as a corporation Law 90 of 1996 exempted the dividend income of mutual funds from tax, thereby eliminating this source of double taxation This had the effect of treating a fund as a transparent entity and the relevant dividend income as if it had passed directly from the corporation to the investor in the fund

During 1996, as an expression of its support for corporate tax reform (and possibly its assessment that the new Government, introduced at the beginning of the year, was supportive of such reform), USAID funded a separate Corporate Tax Project, which Barents Group also had the opportunity to lead The purpose of this project was to review the original Red Book recommendations on corporate taxation and update them in the light of the changing corporate investment climate in Egypt

The project team of the PFAP worked closely alongside the Corporate Tax Project in revising corporate tax recommendations and then took the lead in presenting them to the Minister of Finance and his designated senior officials As with the original recommendations, the project team met regularly with its GoE counterparts to discuss the proposals and to provide computer-modelled analyses and forecasts of the proposals' potential impact Supplementary briefing papers were prepared for each of the recommendations and forwarded to the GoE Although primarily directed towards corporate tax reform, the recommendations took into account the broader spectrum of direct and indirect taxation and presented a balanced program for both corporate tax reform and further income tax reforms These reform recommendations included

- *Tax rates* That a uniform business rate be adopted for incorporated and unincorporated businesses, preferably at a level between 30 percent and 35 percent A uniform rate would remove distortions in the choice of business form adopted As long as the corporate rate was lower than the top marginal rates for the self-employed, there was an inducement to incorporate purely for tax reasons Looked at another way, it was inequitable that one form of business should pay tax at lower rates than another form even if the two were in the same line of business and earned the same profits

- *Interest* A number of options were offered in respect of interest The preferred option was to tax all interest income If this was unacceptable to the GoE, it was recommended that deductions for the cost of borrowing should at least be curtailed The main proposal was to deny an interest deduction up to the level of any interest income This would prevent companies borrowing and then leaving the money on deposit in order to take advantage of the fact that interest income was not taxed but a deduction was given for an interest expense By leaving borrowed money on deposit, companies could engineer a tax deduction that could be offset against other income

- *Bad debt provisions* It was recommended that the deduction allowable for bad and doubtful debts to banks be made more generous
- *Depreciation allowances* It was recommended that the depreciation code be simplified by grouping assets into separate declining balance depreciation pools
- *Compliance* A number of recommendations were made for strengthening the penalties for non-compliance and for the introduction of a system of presumptive taxation
- *Tax payments* It was argued that a system of current payments, estimated on the basis of the tax paid for the preceding year, would be far more effective and easy to administer than the system of Discounts and Additions As corporations are required to register anyway under companies law, the system had no role in identifying corporations "unknown" to the Tax Department Corporations should therefore be taken out of the Discounts and Additions system and start making estimated payments immediately, with a phasing in of the new system for the self-employed

Although there was considerable overlap between the recommendations of the Corporate Tax Project and those of the Redbook, the Corporate Tax Project report had the beneficial effect of helping the GoE to re-focus its attention on direct tax reform Following extensive discussions between the Minister of Finance, the Tax Commissioner and the project team, a series of initiatives was undertaken by the GoE Measures introduced included

- *Discounts and Additions* The GoE recognized that this system was cumbersome and costly for both the Department and the taxpayers to work with Initially, efforts were taken to simplify the system A number of Departmental decrees were issued eliminating some categories of goods from the system and unifying many of the applicable tax rates In January 1997, draft legislation was prepared and transmitted to the People's Assembly to raise the transaction threshold at which the system applies from LE 10 to LE 200, but this legislation was not acted upon In 1998, a draft law was submitted to the People's Assembly to replace the Discounts and Additions system with an estimated payments system The fact that the GoE has come to accept this direction for future reform is itself progress, because there has been a strong sense of pride in the "home grown" Discounts and Additions system and it had previously been defended with considerable tenacity At the close of the project, this legislation has not been enacted, but both Minister Gharib and Commissioner Fahkri have indicated that it is high priority legislation
- *Tax holidays* Law 8 of 1997 codified and revised the various pieces of legislation relating to tax incentives The law covers free zones and also specifies 16 classes of activity that will qualify for tax holidays of between 5 and 20 years, the period dependent largely on the geographical region in which a qualifying entity is based It also provides that mergers, divisions or changes of legal structure will not result in any new tax exemptions It is probably too early to pass a definitive judgment on the effects of the new legislation, but if applied

correctly it may confer some advantages over the previous regime By specifying exactly which activities qualify for a holiday, it gives greater clarity and may restrict the numbers of taxpayers receiving a holiday Furthermore, by giving precise definitions of the holiday periods due and providing that simple changes in legal form will not qualify for fresh holidays, it may curtail abuse of the system by which the same entities enjoyed a succession of holidays under different guises

- *Depreciation allowances* The GoE has yet to adopt an open ended, declining balance system for granting depreciation allowances, but a Departmental Decree was issued in October 1997 that considerably simplifies the existing system Now, instead of utilizing about 50 categories of assets as a basis for determining allowances, only 5 classes are used This simplifies the system considerably and gives the taxpayer far greater certainty as to how a new investment in physical assets will be treated for tax purposes

- *Tax rates* Law 162 of 1997 introduced a significant reform of income tax rates Self-employed taxpayers (whether in commercial, industrial or professional business) are now taxed at 20 percent on taxable income up to LE 2,500, at 27 percent on income between LE 2,500 and LE 7 000, at 35 percent on income between LE 7,000 and LE 16 000, and at 40 percent on income above LE 16,000 This measure has several noteworthy effects

  ◊ First, it brings the top tax rate for self-employed taxpayers into line with the basic corporate tax rate, thereby increasing the fairness of the system and eliminating market distortions

  ◊ Second by reducing the top marginal rate it alleviates the tax burden on the self-employed and provides an incentive to smaller private firms

  ◊ Third, it more closely matches the upper marginal tax rate paid by the self-employed (40 percent) to that paid by higher wage and salary earners (32 percent) Although glaring disparities in the two sets of rates remain, this does constitute a further step towards an eventual unified income tax rate

- *Family burden allowances* Law 162 also increased further the rates of family burden allowance to LE 2,000 for a single person, ranging to LE 3,000 for a married person with children This increases the fairness of the tax and simplifies tax administration further by taking more low-income taxpayers out of the tax net

- *Interest* Law 5 of 1998 introduced a significant reform to the tax treatment of interest While most international advisors, including the project team, have recommended that interest income be taxed directly, this has not been judged politically viable in Egypt (e g , the People's Assembly rejected a proposal to levy a 5 percent withholding tax on interest during debate over the Global Income Tax) The alternative, which was adopted in Law 5 was to impose a limit on the deduction for interest expense This deduction of interest costs is essentially limited to the extent to which the borrowing business has interest receipts in excess of its exempt income This reform eliminates many of the problems associated with allowing tax exemption and deductibility of interest to exist side by side It is also likely to produce substantial income tax revenues for the GoE, probably well in excess of LE 1 billion per year, reflecting the fact that this has been a major gap in the Egyptian tax system

- *Bad debt reserves* Law 5 of 1998 also increased the amount of the deduction that banks can obtain in respect of bad debt reserves from 5 percent to 10 percent Although not as generous a deduction as many countries allow the measure does recognize the special nature of banks and goes some way to accommodating banks' needs

The acceleration of the pace of income tax reform in the last eighteen months, together with informal discussions with senior GoE officials, is encouraging and indicates that the pace of income tax reform will continue This view is reinforced by the fact that USAID and the GoE have apparently jointly agreed on a follow-on tax project that will continue to provide technical assistance and support to the GoE for the introduction of future reforms

FUTURE INCOME TAX REFORMS

While much has been accomplished in the 1994-98 period, further reforms to Egypt's income tax system remain desirable A brief summary of the areas in which further reforms could be (and in many cases are being) considered include the following

- *Corporate tax reform* This area has not been systematically addressed, though some of the recent reforms (interest, bad debts, depreciation) clearly affect corporate taxpayers The review of corporate tax reform should give particular attention to the tax holidays, special deductions and credits that erode the tax base, and the discounts and additions system for collecting taxes If these issues were successfully addressed, it is likely that the GoE could afford to reduce corporate tax rates from their existing levels
- *Global Income Tax reform* At the time that the global income tax was introduced, the primary focus was on integrating the different schedular income taxes, reducing marginal rates, and increasing the family burden exemption amount Most deductions and credits that existed under the prior taxes were retained, so that little base broadening occurred It would be desirable for the GoE to review all existing deductions and credits, to see how the tax base could be broadened, which in turn could provide opportunities for further reductions in tax rates and/or further increases in the family burden exemption amounts Over time, the GoE could also usefully move to uniform rates on all forms of income that are taxed under the Global Income Tax
- *Other taxes on income* Future income tax reforms could also usefully integrate those taxes that are currently income taxes in all but name into the income tax structure Such taxes include the stamp duty on government wages and salaries and the development duty

OTHER TAX REFORMS

Although sales and income taxes were the primary focus of the Public Finance Administration Project, since the tax reform program was to be comprehensive, it was important that other taxes, duties and fees be analyzed as well and included in the overall tax reform program Accordingly, as outlined in earlier in the report the project team assessed the inheritance tax, property taxes, customs duties (briefly), stamp duties the development duty, and the social solidarity tax The project team recommendations, and legislative actions to date, for these areas are summarized below

- *Inheritance tax* Although this tax had been reformed in July 1989 just prior to the initiation of the project, the tax was judged to suffer from several major defects revenue yield was low, collection costs were high, the exemption, valuation and payment methods created inequities and distortions, and evasion and avoidance were easy While the project team believed there was merit in retaining the inheritance tax within the overall tax structure, it was recommended that rates be increased and the base be broadened In fact, the GoE made the decision to abolish the tax in July 1996 Given the low priority attached to inheritance tax reform relative to other reforms, this was probably a prudent decision When the GoE completes its reform of income and sales taxes some time in future, the issue of inheritance taxation could be revisted

- *Property taxes* Two separate studies of property taxes were done by the project team, one as part of the overall assessment of the Egyptian tax system and a second as part of the Local Government Fiscal Management Study While there are good reasons for levying taxes on property, property taxation has never been an important source of revenue in Egypt Indeed, its revenue contribution has declined over time and it is unduly costly to administer relative to the revenue yield The project team noted that while reform would be desirable, especially as a means for developing a local government revenue source longer term (most property taxes currently go to the Central Government), such reform would only be justified if the GoE had a serious interest in improving property taxation and raising substantially more revenue from it In fact, no reforms have been forthcoming, and in 1993 the property tax on vacant land was repealed by a judicial ruling The property taxes on agricultural land and privately-owned commercial buildings and luxury housing remain in effect

- *Customs duties* It was important to understand these duties as part of the comprehensive reform because of the large amount of revenue they produce, the protection they provide to domestic industry, and their linkages to the sales tax However, since the U S Customs Service had responsibility for the customs component of the project, and because the World Bank and the IMF had studied these duties extensively, relatively few project resources were devoted to them The recommendations were, consistent with the recommendations of others, to continue to reduce tariffs over time, and to eliminate non-tariff trade barriers This has in fact happened, [as shown earlier in Exhibit III-1 Awaiting information]

- *Stamp duties* These duties, judged to be archiac by most public finance specialists, were introduced in Egypt in 1939 and have been expanded in scope and diversity over time The project team recommendations, as noted earlier, were to eliminate these duties, but this recommendation had to be tempered by the realization that the GoE raises substantial revenue from them While many duties remain in place, it has been encouraging to see that several important ones, particularly those associated with the smooth functioning of capital markets, were repealed in 1992 (repeal of the stamp tax on capital of registered corporations) and 1995 (repeal of stamp duties on share holdings and share transactions of all companies)

- *Social Solidarity Tax and State Financial Resources Development Duty* These taxes, introduced in 1978 and 1984, respectively, were proposed for repeal by the project team The former tax is a levy on Egyptians working abroad and the latter, as described before, is an array of taxes, including a tax that acts as a supplement to the income tax To date, there has been no change in the status of these taxes

APPENDIX III-A

Table of Contents from

A Comprehensive Tax Reform Program for Egypt

October 1991

APPENDIX III-A

A COMPREHENSIVE REFORM PROGRAM FOR EGYPT

Contents

52

R \EGYPT\FIN4I\FIN \ERSI \ fullEgypt4 doc

53

54

55

List of Tables, Examples, Figures, and Appendices

Tables

Examples

Figures

Appendices

IV ANALYZING POLICY REFORMS

BACKGROUND

The introduction of major tax reforms in any country should be accompanied by sound empirical analyses of the effects of those reforms, because their impacts on individuals and businesses can be widespread and the consequences to the national treasuries can be immense Such analyses can be complicated to perform because

- Data limitations always exist,
- Behavioral responses to tax changes can often be difficult to estimate, and
- The most rigorous analytic approaches are themselves complex to develop and execute

In Egypt, such analysis was especially critical because the Government faced very large budget deficits that needed to be reduced If reforms were to be introduced, the revenue consequences needed to be understood with a high degree of certainty, to assure that the reforms were contributing to the degree expected to an improvement of the Government of Egypt's (GoE) fiscal position Furthermore, if reforms were to be widely accepted, it was important that they be considered equitable, which meant that the distributional consequences of reforms needed to be understood when the policies were developed, and then be able to be credibly presented once the reforms were introduced

These requirements for introducing policy reforms were understood by those in USAID who designed the project Accordingly, resources were budgeted to develop a quantitative analytic capability that could be used in the initial stages of the project to analyze the revenue and distributional consequences of policy reforms The plan was to then transfer this capability to Economic Research Departments (ERDs) within the tax departments, which could work with the project team to analyze the revenue and distributional effects of actual reforms introduced by the GoE These ERDs would ultimately become the tax analysis units of the Ministry of Finance and the respective tax departments, and be sufficiently trained to perform such analyses independently by the time the project ended

Barents Group was well suited for this element of the project because it had staff who previously performed such analyses for the U S Department of the Treasury, State governments in the United States, and many foreign ministries of finance The quantitative analysis performed under this project was directed initially by Dr Thomas Vasquez, and later by Mr Howard Nester both of whom had served as Assistant Directors of the U S Treasury's Office of Tax Analysis They were supported by several highly-experienced Barents staff out of the Washington office, including Ms Rita Melhem, Dr Sergio Madrigal, Dr Lorris Mizrahi, Mr Fran Greaney and Dr Steve Galginaitis, all of whom had developed models and data bases for other countries and Dr Hafiz Shaltout, an Egyptian economist from Barents' project office The transfer of analytic models to the ERDs of the tax departments was later led by Mr Nester who had the lead responsibility for working with the ERDs, and Ms Rita Melhem, who was the DC-based Project

51

Manager and was heavily involved in the modeling and database development activities and training

The major obstacle to success in developing the necessary analytic models was data Only very limited data were available, and the data that were available within the GoE ministries and departments (including the Ministry of Finance) were not always easily accessed Data related to the public finances of Egypt, as in many countries at the stage that Egypt was at in 1989, are considered highly sensitive and held closely The sensitivity barriers were overcome once the project became established and the project team became trusted to handle confidential information appropriately However, creating new databases, particularly in the case of data related to income tax analysis, took considerable time and effort, as is discussed later in this chapter

In the next section, the efforts of the project team to develop and use models and databases to analyze alternative tax reform policies are discussed This is followed by a full discussion of the project team's work to help establish and train Economic Research Departments in the two tax departments and in the Ministry of Finance

DEVELOPMENT OF ANALYTICAL MODELS AND DATA BASES

For purposes of exposition, it is useful to distinguish between the modeling that was done for analysis of indirect tax issues from that which was done for income tax issues, since the modeling approaches differed significantly, as did the efforts to develop the analytical databases used in the models

INDIRECT TAX MODEL

The indirect tax model was the first major analytical model completed by the project team, and was developed on a priority basis to support the analysis of alternative sales tax structures that were under consideration by the GoE in 1990 and early 1991 The initial version of the model, building on proprietary modeling software that Barents brought to the project, was completed in the spring of 1990 The model was enhanced in the succeeding several months, as additional data became available to the project team The model was then updated again using 1993 data

The model is constructed around detailed tax and economic data from a variety of sources, published and unpublished, integrated into a consistent and comprehensive database representative of the flow of goods and services throughout the economy At the center of the model is an input-output table of the Egyptian economy that was obtained from the Ministry of Planning for 1987/88 This detailed input-output table allows the model to disaggregate flows of goods and services (1) among industries, (2) between industries, final consumers, government, and foreigners (through foreign trade), and (3) between goods that are taxed at different rates under the General Sales Tax Law

The modeling structure also provides the basis for measuring the amounts of tax credits that can be claimed for the purchase of inputs, a critical feature of the model, since the sales tax that was ultimately adopted in Egypt allows for crediting of some inputs and not others The model structure allowed distinctions to be made between the credits that could be claimed for raw materials and intermediate goods, credits that could be also claimed on an installment basis for capital goods, and credits that could not be claimed under the General Sales Tax, but would be claimed if all inputs were creditable, as is allowed in broad-based sales taxes in many countries around the world

The international sector of the model incorporates data from a number of different sources, including the tariff structure, detailed import and export data from the United Nations (1987/88), and data on aggregate customs duties collections The domestic sector of the model also uses data from a broad range of sources, including national income accounts, annual industrial surveys, consumption tax collections by commodity, and information on price-controlled products The data collected for the model are sufficiently disaggregated to analyze both the current sales tax levied at the manufacturing level and the possible extension of the tax to wholesale and retail trade

The input-output table, and the wide range of data described above, were integrated within a modeling environment that uses the General Algebraic Modeling System (GAMS) This modeling environment allows for behavioral changes in response to changes in relative prices, subject to the constraint that the overall level of real economic activity is held constant Thus, to the extent that one set of goods is taxed at a different rate than another, as occurs under the General Sales Tax, the change in after-tax market prices results in changes in resource allocations in the economy and these changes are captured by the model

Because the data that were collected for the model were from a variety of different sources, it was important that the model be calibrated to ensure that it could replicate the reported tax revenue for all the indirect taxes This was done by economic sector, for the year 1987/88, to assure that the model was calibrated to hit estimated consumption taxes (and import duties) accurately for that year Once this calibration was completed, the model was extrapolated forward to 1992/93, consistent with projections of economic activity for that period [5]

The standard output from the model presents an analysis of two alternative policies, one labeled as 'Plan X' and one as "Plan Y " Typically, Plan X represents current law and Plan Y represents a proposed change to that law, however, the model can analyze two alternative policies just as easily The standard model output includes the revenue impact of the proposed change, disaggregated between imports and domestic production, the distribution of the indirect tax burden across household consumption desciles, the percent increase in prices that results from the entire indirect tax system, and a measure of the degree of cascading of indirect taxes

The model was used extensively in 1990/91 to analyze the revenue and distributional consequences of alternative sales tax structures The results from these model simulations served as an important input to the development of the General Sales Tax The model has been used subsequently by the project team and the Department's ERD to analyze the effects of further reforms, such as extending the sales tax to the retail level In addition, the model can be used for specialized analyses desired by the user Because of the detailed data base of international trade data, for

[5] A fuller description of the methodology employed for developing the indirect tax model database is presented in the indirect tax model user manual and technical documentation that were transmitted to the Sales Tax Department ERD

51

example, the model can be and has been used to analyze effective rates of protection that result from the Egyptian tariff structure[6]

DIRECT TAX MODELS

In the case of the indirect tax model, as outlined above, the real challenge was to access available data and organize it into an integrated database that was representative of the Egyptian economy In the case of the direct tax models, the challenge was much greater, because there were no readily available data that could be used to analyze alternative income tax reform scenarios

The conventional approach for analyzing the revenue and distributional effects of income tax reform is "microsimulation modeling" Under this approach, income tax modeling software calculates the tax liability of each individual or business in the database, effectively replicating the process that the taxpayer would follow in first calculating taxable income and then calculating tax liability consistent with that income Each individual or business record in the database is drawn from the universe of taxpayers, resulting in a sample that is statistically weighted to represent the full taxpayer population of individuals and businesses After calculating income for each record in the file, the tax model software aggregates the results over all individuals or businesses in the database to measure the revenue and distributional effects of two alternative policies[7]

Barents Group already had proprietary microsimulation modeling software that it brought to the project, so the only obstacle to deploying the above-described approach was data The Tax Department did not have a database of taxpayer information of any form, in part because they did not have computer capabilities to support collection and storage of such information, so the only way in which this proven approach to income tax analysis could be used was to set out to actually collect a sample of individual and business taxpayer information The Minister of Finance supported this initiative, and as a result a team of twelve Tax Department officers was recruited and dedicated to this effort Mr Hamdi Abd el Aziz, a former Commissioner of the Tax Department who served as an income tax advisor on the project team, provided oversight of the data collection team The project team itself, did not have direct access to confidential tax information Moreover, some of the information originally requested ultimately was not collected, either because it was not available or because of time constraints associated with the data collection effort

Because the GoE had a schedular tax system, with different structures applying to each of several different sources of income, the data collection effort had to mirror this structure to the extent possible, so that each existing tax could be analyzed under current law At the same time, the approach to be followed had to allow for aggregation of the different sources of individual income, both to analyze the existing general income tax and to analyze the global income tax alternatives that were to be considered Accordingly, a plan was established for collecting data for corporations commercial and industrial profits (unincorporated businesses), and wage earners Interest income was handled separately, as outlined later in this discussion, because most

---

6 This analysis is referenced in Dr Jorge Martinez' Project Paper, "Trade and Tax Policy in Egypt," June 1992

7 This approach is discussed more fully in Dr Harvey Galper and Ms Rita Melhem s Project Paper "Analytic Tax Models for Egypt June 1992

interest income was not taxed in Egypt and the Tax Department therefore had little data to access Similarly, upon the advice of the Department, due to the insufficient number of returns from this category of taxpayers, no effort was made to collect a micro database of non-commercial professionals, this income source was also estimated separately, as outlined below

The project team staff in Washington and in Cairo, with active support and input from senior officials in the Tax Department, developed separate data collection forms for corporations, commercial and industrial profits, and wages and salaries The tax year 1985 was selected as the base year for businesses (and 1987 as base year for wages and salaries), since this was judged by the Department to be the most recent year at that time for which the majority of taxpayers would have settled their tax liabilities In all cases, data were collected on gross and taxable income, and efforts were made to collect data on all the major exemptions, deductions, and credits available to taxpayers as well The data collection effort was active for a period of approximately 24-months, during which time data were collected from more than 700 corporations, almost 16,000 commercial and industrial taxpayers, and almost 21,000 wage earners

After the data were collected and had been reviewed, they were keypunched into computer-readable format by the Tax Department's ADP sector and then turned over to the project team [8] The project team then went through an intensive set of procedures to process the data for use in the models The steps in the process included the following

- *Data verification* The data were run through a "tax calculator" to test for internal consistency of the data This process identified both keypunch errors and errors on tax returns Errors were corrected where possible, though in some cases, returns were removed from the sample
- *Filling in data gaps* In many cases, the data collected were incomplete, either because they were not available on the return, or because the sampling process did not include all information on the return (see, for example, the description below for how "short forms" were used for collecting much of the data for corporations and commercial and industrial taxpayers) To fill in missing data, a statistical technique called "hotdecking" was used to develop estimates of the missing data
- *Weighting each record* Each return in the sample is representative of a number of other taxpayers A statistical process was followed for estimating these weights for each of the returns in the three respective databases The models multiply these weights times the data for each record, and then sum the weighted results, to estimate the aggregate results for the entire corporate, commercial and industrial, and wage earner populations
- *Calibration* When the above processes were completed, model simulations were run to test how closely the model predicted actual tax liabilities for each of the three taxes Calibrations were made to taxpayer weights, to the extent necessary, to tie to actual results for the base year (1985 for all but the wage tax, as noted above)

[8] Only the keypunched data and not actual tax returns were supplied to the project team These keypunched data did not include any taxpayer identification information in order to protect the confidentiality of taxpayer information

61

- *Extrapolation to 1992* Once a representative database existed for a base year, the data were extrapolated to 1992, consistent with available information on the economy and on tax collections

A more detailed discussion of the approach that was followed in developing the analytic databases was presented in the Technical Manuals to the models that were delivered to the Tax Department's ERD

In the discussion that follows, each of the microsimulation income tax models that was developed by the project team is described together with some of the specific issues that were addressed in developing the respective databases This is followed by a discussion of other somewhat less sophisticated, models that were developed by the project to support the efforts to analyze comprehensive income tax reform in Egypt

- *Corporate Income Tax Model* The corporate income tax model was designed to analyze two separate taxes on corporate income the corporate income tax and the development duty Barents' microsimulation modeling software was modified as necessary to replicate the tax structure that existed in Egypt, so that it would effectively replicate the tax calculations as they would be done by each corporation represented in the database in determining its tax liability

  To collect the data for corporations to be used in the model, two separate transcription forms were used For about one third of the returns, a short form that included 17 different items such as assets, income, deductions and tax liability was used For the remaining two-thirds of the returns, a long form of about 100 items was used This longer form included the same 17 items on the short form, but with much more detail on assets, income, deductions, etc Both forms identified important characteristics of the corporation, including whether it was a public or private corporation and the industry in which it operated, so that the model results could be tabulated and displayed by these characteristics [9] Prior to inclusion in the database, the data for each sample corporation was checked to assure that the gross income, taxable income, and tax liability data were internally consistent When inconsistencies were identified, they were reviewed and resolved, often a time-consuming process for the data collection team

  The sample of corporate taxpayer data was re-weighted to a universe of corporations by applying statistical weights to each of the records in the sample The weights were based on Tax Department estimates of the total number of corporate taxpayers, the total amount of corporate income taxes collected by the Department during the last ten years, and a census of manufacturing and other economic data In creating the taxpayer universe, the three largest public sector corporations (Egyptian General Petroleum Corporation, the Central Bank, and the Suez Canal Authority) were identified separately based on publicly available information on these corporations, this separate handling of these extremely large corporations (effectively giving them a statistical weight of one) improved the accuracy of the weighting process

[9] The model presents results disaggregated by nine different industry classifications and eight different size classifications (where size is measured by the firm s assets)

- *Commercial and Industrial Profits Tax Model* This model was designed to estimate three taxes due on commercial and industrial profits the schedular tax on these profits, the general income tax, and the development duty As with corporations data were collected on short forms for many of the returns that were sampled and on long forms for others In contrast to the data collection effort for corporations, the vast majority of the returns sampled used the short form, with less than five percent using the long form This differing emphasis reflects the fact that the universe of commercial and industrial profits taxpayers is much larger than the corporate universe and includes many relatively small businesses The data for commercial and industrial profits taxpayers were of somewhat lower quality, and were often less complete, than the data for corporations, and the processing of the data was more time consuming Accordingly, this particular data collection and processing effort extended over a greater time period than for the other two comparable efforts

  The tax model software and this database was initially used to calculate the tax liability of commercial and industrial taxpayers under the schedular tax, the general income tax, and the development duty It was then used to calculate the impact of shifting from a schedular to a global income tax with new rates, tax bases and family exemption levels The microsimulation process that is used is the same as that described above for corporations

- *Wage and Salary Tax Model* This model was designed to analyze four different GoE taxes levied on wage income (i) the schedular income tax on wages and salaries, (ii) the proportional stamp tax on wages, which is levied on government and public sector employees, (iii) the general income tax, and (iv) the development duty

  The tax model software analyzes the tax liability of each individual wage earner consistent with the microsimulation approach outlined earlier For each wage earner represented in the database tax liability is calculated, adding together all sources of taxable wage and salary income allowing legally-provided deductions and exemptions, and applying marginal tax rates specified under the law Each wage earner in the file has a statistical "weight" that identifies the number of wage earners in Egypt represented by that individual The "weighted" sample, when summed, represents the entire universe of wage earners in Egypt The wage tax database incorporates detailed wage earner data collected by the Tax Department officers, aggregate employment data, and tax collection data These data were collected using different forms designed by the project team

- *Non-Commercial Professional Profits Tax* The approach for simulating the impact of tax reform on professionals was very similar to that outlined above for the commercial and industrial profits tax Since taxpayer data on non-commercial professional profits were not collected, because the Department believed there were limited numbers of returns and the data on the returns that did exist were of low quality, a representative data base was created from the limited amount of information that was available, primarily data on tax collections and numbers of taxpayers In the absence of other information, the distribution of taxable income of professional profits taxpayers was assumed to be identical to that of commercial and industrial profits taxpayers This assumption, together with the known number of taxpayers, was found to produce results consistent with the amount of revenue collected from the scheduler tax on professionals Utilizing this database, the tax model software calculated the tax liability under the schedular tax, the general income tax, and the development duty, it also calculated tax liability under global income tax reform alternatives

In addition to the models described in the preceding section, a series of other more aggregated and condensed analytic models were developed for use in addressing specific issues for which either the databases in the larger models were not adequate or the models themselves were not designed to address Some of the more important of these models are described below

- *Taxation of Interest Model* This model was developed to estimate the effects on both tax liability and collections of taxing interest income through withholding at source These estimates were developed by type of interest recipient, under alternative assumptions regarding tax rates, future interest rates, and the growth of asset holdings The model was designed to calculate interest paid by banks and other payers, utilizing data from the Central Bank of Egypt and from analyses of the Egyptian financial sector supplied by USAID Based on this information, estimates were made of interest received by households and by types of business firms by (i) type of asset and (ii) maturity This level of detail was needed to project how taxable income would change as interest rates changed over the forecast period and to estimate the revenue implications of exempting holders of longer-term securities when taxation of interest was initially enacted [10]
- *Tax Payments Model (conversion of tax accruals to cash receipts)* The microsimulation models described earlier provide analyses on the basis of taxpayer *liabilities*, based on the information collected on taxpayer returns However, the GoE budget, in common with the practice of most governments, registers taxes as budgetary receipts only when they are actually paid into the appropriate depository agency and credited to the account of the Ministry of Finance For a variety of reasons, payments generally lag well behind the accrual of the liability Reasons for the lags include the payment rules themselves, the administrative procedures for recording taxes received, and the ability of the taxpayer to make payments The tax payments model is designed to translate the calendar year liability estimates produced by the tax models into fiscal year collections Model inputs include parameters for the various mechanisms for making payments to the Tax Department such as withholding by month, withholding by quarter, payment with final returns, discounts and additions, etc The model produces estimates for proposals that change calendar year tax liability and for proposals that change how tax payment requirements are met (such as greater use of withholding at source or introduction of an estimated payments system)
- *Penalty Reform and Tax Backlog Models* These models were developed to estimate the impact on income tax collections of a proposal to apply a uniform and more onerous system of delay fines and penalties to taxpayers who fail to comply with filing or payment rules The penalty reform model is designed to take into account the impact on collections (i) under various assumptions as to changes in taxpayer compliance as a consequence of the proposed rules and (ii) as a result of the increased fines and penalties that would be imposed on non-compliant taxpayers under the proposed new rules The tax backlog model was developed to estimate the impact of a proposal to reduce the backlog of unsettled tax cases by the forgiveness of part or all of pre-1993 unpaid income tax liabilities for low-income taxpayers

[10] It was assumed that elimination of tax exemption of interest would result in a rise in interest rates on securities that were previously tax-exempt such as government securities Holders of bonds and other such securities would suffer a capital loss on their bond holdings if they did not receive some form of 'grandfathering" at the time taxation of interest was introduced

60

- *Tax Holiday Model* The tax holiday model is designed to produce year-by-year revenue estimates of changes in tax holiday laws, including the impact of the recently enacted Investment Guarantees and Incentives Law (No 8/1997) Since the revenue impact of changes in investment incentives for companies formed in a given year (a vintage) extend many years into the future and ultimately reverse in part (as some become profitable and lose their exempt status), revenue projections must reflect this cumulative phasing in of each vintage of investments and their long-run impacts The model uses as its basic input the baseline revenue estimate produced by the corporate tax model, combines this with other information (such as growth rates induced business formations, expirations, profitability, and average length of tax holiday) to derive a stream of annual revenue estimates over the next 20 years for each investment vintage, and cumulates these streams over each of the intervening years to produce year-by-year net revenue estimates

- *Government Employee Tax Burden Model* Since the GoE is the largest employer in Egypt, there was a considerable interest in the impact of broad-based tax reform proposals on employees in the Government sector The project team was given representative examples of the incomes of government employees at each level (Grades VI to I, General Manager, Undersecretary and First Undersecretary) and used these to estimate changes in tax liability under various assumptions as to allowable deductions, exemptions, and tax rates The model is designed to take into account (i) allowances such as the family burden allowance, annual allowances, special bonuses, Presidential bonuses, social allowances, and production incentives, (ii) deductions and exclusions such as the cost of earning income, employee contributions to pensions and savings plans, and representational allowances, and (iii) taxes such as stamp taxes, wage taxes and development duties The database included high-end and low-end wage income for each grade Exemptions, bonuses and other adjustments were estimated based on statutory rules Assumptions (e g , the family burden allowance) could be modified to show the impact of proposals on representative families

Over the course of the project the project team and counterparts in the Ministry's analytic units used these models and data bases to provide economic and statistical support for numerous proposals for fundamental tax reform and for modifications to existing laws The various types of analyses included

- Projections of monthly and fiscal year change in tax payments, by type of tax, as a result of enacted and/or proposed changes in tax law and tax administration practices
- Individual taxpayer distributional tables showing winners and losers, numbers of taxpayers affected, and average and total tax changes across income classes as a result of changes in tax laws
- Corporate distributional tables showing changes in tax liability by industry
- Changes in overall and relative prices for various commodities under indirect tax proposals
- Changes in reported income and deduction items affected by tax proposals

Most notably, the project team used these models to estimate the revenue and distributional effects of the comprehensive tax reform program it presented to the GoE in 1991 These estimates included both impacts of the entire program and effects of each of the major base-

65

broadening proposals that was recommended In late 1993, the models were used to estimate the effects of the Global Income Tax, for which a confidential report was prepared for the Minister and a separate analysis was prepared for USAID And in subsequent years, the models were used periodically to analyze specific proposals that were of concern at that time

INSTITUTIONALIZING ANALYTIC CAPABILITY

BACKGROUND

The development of the analytic models and databases was a critical component of the project, and one that was essential to estimating with a reasonable degree of accuracy the impacts of proposed and actual reforms Equally important, however, was the objective of institutionalizing within the Ministry and its tax departments the capability of performing such analyses independently in the future, once the project has ended

This objective was established for the project from the outset, in the USAID Project Paper that served as the foundation for establishing the project This paper envisioned the creation of an Administration and Policy Analysis Unit in the Financial Research, Statistics and Administrative Development Office of the Ministry of Finance The unit was to be staffed by U S and Egyptian tax analysts and public finance management specialists who would participate in developing the tax reform agenda It was expected that the Ministry of Finance, in response to its own needs and commitment to the project goals, would take the necessary steps to create the new unit and open opportunities for Ministry of Finance staff to be trained by project experts and participate in policy debates In support of this anticipated initiative, Dr William Fox prepared a descriptive analysis of the process and methods by which revenues were projected and monitored in early 1990 [11]

However, because the policy development and review process was conducted at only the highest levels within the Ministry of Finance and the tax departments, this Project Paper vision did not materialize in Phase I of the project The policy analysis unit was not created in the Ministry of Finance There was no core staff of Egyptian tax and public finance analysts with whom the project team could work As a result, virtually all project-related modeling and policy analysis was undertaken by project team staff and consultants, working only in coordination with the Minister and top level officials in the departments

Recognizing that this project objective was not moving forward, the project team's 1991 report "A Comprehensive Tax Reform for Egypt" formally recommended that Economic Research Departments (ERDs) be established in the tax departments and in the Minister's office in the Ministry of Finance This recommendation was supplemented by many informal discussions with the Commissioners, in which this initiative was actively promoted [12] Prior to 1992, project

---

[11] See 'Estimating & Tracking Revenues in the Ministry of Finance, William Fox, January 1990, Internal Working Paper #1990-3

[12] In April 1991, in response to discussions with the Commissioner the project team developed a report on the role and qualifications of the staff of an ERD in the Tax Department

team efforts toward institutionalizing policy analysis had been essentially limited to soliciting support from the Minister and department leadership for the establishment and staffing of ERDs

Beginning in 1992, when the modeling and database development work had been largely completed, and as the project moved to the second phase, a more concentrated and active focus was made to promote the establishment and training of ERDs in the two tax departments and the Ministry of Finance This was reflected in an amendment to the Project Paper in 1992 to call for establishing research units in the Sales Tax Department, in the Tax Department, and in a central level research unit (generally understood to be located in the Office of the Minister)

As was the case with other project activities, this initiative moved forward at a different pace and schedule in each department Accordingly, in the discussion that follows, the project team's efforts to institutionalize policy analysis is discussed separately for the Sales Tax Department, the Tax Department, and the Ministry of Finance

SALES TAX DEPARTMENT

The initial success in establishing and training of an Economic Research Department (ERD) was in the Sales Tax Department because of the enthusiastic adoption of the concept by the then-Deputy Commissioner of the Sales Tax Department, Mr Mahmoud Ali The Department had no comparable unit of any kind, so the new unit was entirely a start-up operation

In early 1992, the Sales Tax Department recruited staff for the new ERD, looking both internally and externally The project team supported this effort by drafting descriptions of the kinds of academic training, experience, and skills that would be needed within the new ERD, in addition to descriptions of the roles and duties of the new ERD The recruiting was completed and by June 1992, the Department's new ERD was established, and a leader appointed

Because the unit was new, and because no comparable organizations existed elsewhere within the Ministry from which to recruit, the staff that was recruited was generally young, inexperienced, and new to the analytic concepts that are used by a research unit Some of the staff had background in the Sales Tax Department (though primarily in the prior Consumption Tax, since the General Sales Tax had only been introduced a year earlier), while others had prior academic training in economics, quantitative analysis, and in the use of computers In general, however, the staff for this new start-up unit was made up of relatively inexperienced professionals who needed substantial training before they would be able to perform the kinds of analyses that the project team had performed in support of tax reform in the prior two years

Training Program

The training program that was developed for the Sales Tax Department's ERD was tailored to meet the needs of a staff that had been recruited with varying backgrounds, which required starting at a more general and basic level and moving towards more specific and advanced training over time The training that was provided generally fell into one of four categories (1) introductory training on the General Sales Tax (GST) and the role of the ERD in analyzing it, (2) training in the areas of economics, statistics, econometrics and public finance, (3) training on

67

the Indirect Tax Model (ITM), and (4) training on the use of computers Each of these training components is briefly summarized below

1 Introductory Training on the General Sales Tax (GST) and the Role of the ERD

Initial training sessions held in July 1992 were provided by the project Chief of Party and were designed to give the staff of the newly formed unit an understanding of their role in developing and analyzing indirect taxes for the Sales Tax Commissioner and other senior officials Project resident advisors, as well as senior Department staff, gave initial lectures on the General Sales Tax that had been adopted in 1991 and how it differed from the Consumption Tax that had previously been in place If the ERD was to be able to analyze sales tax issues, it had to have an in-depth understanding of the tax it was analyzing Another focus of the initial training was on the practical application of principles and estimating techniques to provide the Commissioner of the Sales Tax Department and others with materials that they needed as quickly as possible

However, since this was a newly formed unit within the Sales Tax Department, the lectures were also designed to give overall direction to a unit composed of individuals with little familiarity with each other or with the anticipated scope of work for the newly formed unit The project team's initial lectures combined such topics as the role and responsibilities of the ERD, how to think about revenue estimating in general, and effective presentation of results to senior officials Technical issues such as the fundamentals of indirect taxes in Egypt, specialized issues in projecting sales tax revenues, and estimating the impact of changes in the sales tax law were also discussed

2 Training in the Areas of Economics, Statistics, Econometrics and Public Finance

In 1992, a formal training program for the ERD was designed and initiated under the direction of Dr Hafez Shaltout, an Egyptian economist on the project team The program was designed to strengthen the knowledge of the staff in the areas of (i) economics, and public finance, and (ii) statistics and econometrics The extensive training in public finance included topics such as supply and demand elasticities, tax burdens, the elasticity of tax collections, requirements for a good tax structure, horizontal and vertical tax equity, and the use of partial and general equilibrium models Econometrics lectures covered the basics of the multi-variable regression analysis, functional forms of regression models, T and F distributions, hypothesis testing, ANOVA in matrix notation, the correlation matrix, and other basics designed to create the skill levels required to perform the kinds of analysis required by the Commissioner and other senior officials in the Sales Tax Department

Subsequent lectures by the project team covered such specialized topics as constructing index numbers, the economics of import tariffs and effective rates of protection, management by objective, operations research, and broader issues of applicability to the work of the ERD Furthermore, the team supervised a training program on financial policies and procedures, which focused on such topics as basic governmental functions, principles of state budgets, income taxes, government accounting, and financial regulations and control

Specific training on selected topics identified by the ERD and the project team was also provided, which included report writing for senior officials, the basics of using the Lotus regression package, accounting for input crediting in revenue estimates, issues in converting estimates of annual changes in liability to changes in fiscal year collections, and the use and interpretation of statistical information produced by the ADP Department The project also provided approximately 50 different books and reports related to public finance, econometrics, sales taxation, and computer applications as an initial investment in a technical library for the ERD Since some of these publications were in English, several members of the ERD received English language training (discussed more fully in Chapter VII)

In response to a perceived need for managers and other top leaders in the Sales Tax Department to have a better understanding of tools and analyses prepared in the Department, and to encourage dialogue between the managers and the staff of the ERD, the project team and members of the ERD presented a series of lectures to the Commissioner and other senior department officials on "Economic Models and Econometric Techniques Used in the Sales Tax Department" in November 1993 Also, at the Commissioner's request, the staff of the ERD and the project team met jointly with an IMF delegation headed by Dr Vito Tanzi to review the ERDs training and work Preparatory to this meeting, Dr Shaltout produced a report for the Commissioner detailing the series of lectures given to the staff in economics of taxation, econometrics, modeling, revenue estimating, and other related topics [13] During the meeting, Dr Tanzi presented certificates to the ERD staff who had successfully completed the training program

3 Training on the Indirect Tax Model (ITM)

There were a number of reasons for the Indirect Tax Model (ITM) to be featured as an integral part of the training for the Sales Tax Department ERD (1) it is a valuable tool for policy analysis and revenue estimating, (2) it embodies fundamental macro and micro economic principles that must be understood in order to successfully use the model, and (3) it requires facility with the use of computers These were all facets of the training program that was established for the ERD

The training provided on the ITM had three components the first was to train selected ERD staff on how to use the model, the second was the more complicated and challenging task of training ERD staff on how to update and modify the model to reflect new economic conditions, different elasticities, changes in the sales tax structure, etc , and the third was how to interpret and use the model outputs The transfer of the indirect modeling technology, and particularly the second stage of this transfer as outlined above, was in fact challenging, because the model uses relatively complex economic concepts, mathematical equations, and computer software

A preliminary version of the ITM, a User's Manual, and a draft technical manual were initially delivered to the ERD in 1992, and Barents staff briefed several newly-appointed analysts on using the model to do revenue forecasting and policy analysis The intent was for the staff of the new unit to work independently with the model and provide input on possible modifications A revised version was subsequently delivered to the ERD In the interim, the staff received training on a wide range of policy and revenue estimating issues During this time, the staff was operating from temporary quarters and experiencing difficulty in maintaining its computers

[13] See "Sales Tax Department, A Report on Training and the Economic Research Department," January 26 1993

In 1993 the ERD was relocated to permanent headquarters in Nasr City and its computers were made operational The ITM was reinstalled on a project-procured "486" micro-computer, one of several procured for the ERDs over the life of the project As part of the transition and reinstallation of the model in the new location, the project team provided additional training on the ITM soon after the relocation At that time, 13 members of the ERD attended the training (of which only two had received preliminary training the previous year) The training was intensive, consisting of nine sessions of three to four hours each The trainees worked on 14 simulations, both individually and in-groups One consequence of this extended hands-on experience was that the staff had questions and requests for modifications to the model These were sent to the model developers in the project team's Washington office

Over the next two months, the staff ran simulations on the model in preparation for more intensive training, which began when a modified version of the ITM was delivered and installed by the project team in April 1993 This round of training effort on the model included miscellaneous exercises designed to apply the model to the analysis of various revenue and policy issues

In 1994, the project team obtained a new 1992 input-output table for Egypt, the UN 1991/1992 Import/Export data tape, up-to-date tax receipt data, and other new economic aggregates The project team also received requests from the ERD for certain additional enhancements to the ITM This led the Team to revise and retarget the model to incorporate the new data and to modify its outputs The revised/updated model was completed and installed in April 1994, complete with advanced training on the ERDs computers by members of the project team

After they had used the ITM for several months, the ERD requested further changes to the model These changes were undertaken and a revised version was sent to Cairo and installed on the ERD computers in August 1994 Additional training by project team members quickly followed This training included reviewing technical aspects of the ITM and introducing the ERD to the General Algebraic Modeling System (GAMS), the language used to construct the ITM

In January 1996, the ERD asked that the project team schedule additional training for the staff The project team responded by providing refresher training on extrapolating the model, analyzing proposed sales tax options, preparing reports and organizing the necessary economic databases and additional training on GAMS

4 Training in the Use of Computers

To support the ERD's use of the computers and the different software packages that were provided, substantial computer-related training was given, such as lectures on time series analysis and the use of the computer, including the use of the econometric time series processor MicroTSP software package

In March 1994, an initial report on the ERD's computerization needs was prepared That same month, based on its diagnostic of the ERD's operations and on needs identified by the ERD staff, the project team provided on-the-job-training for the ERD on database design and computer-aided analytic techniques, including the use of Quatropro, training on software packages,

70

including Statistical Package for Social Sciences (SPSS) for Windows review of management information reports and recommendations for alternative formats and content and a six-day advanced course in MS Windows and MS Excel 97

Diagnostics

The project team initiated an in-depth review of the operations and outputs of the ERD to assess quality and timeliness of material prepared for department leadership Analyses and estimates prepared by the ERD were critiqued in detail for technical content and clarity of exposition The management and operations of the ERD, its tools, inputs from other agencies and the flow of information to and from the ERD were all reviewed The results of these reviews were discussed with the staff, documented in several memoranda, and were the subject of an extended discussion with the Commissioner at the end of the mission

After reviewing the ERD's operations and several of its reports, the project team concluded that the ERD was operating much as expected given the relative newness of the staff and the demands made on it within the Sales Tax Department The problems that were identified were judged to be resolvable through further (but limited) training, changes in certain procedures, additional computers and software, and continued experience in responding to requests and analyzing tax data The project team's recommendations, most of which were later adopted in one form or another, included the following

- Need for an experienced manager who could understand and lead ERD work,
- Need for additional hardware and software, and proper maintenance of equipment by ERD staff,
- Need for a system of documentation for all ERD files (both hard and soft copies) and centralization of information for ready access by management,
- Need for a refresher course to new staff members,
- Need for a plan to computerize all operations, including the preparation of reports,
- Need to increase the use of the MIS reports produced by the ADP Department,
- Need to develop a program for sampling annual sales tax returns and obtaining needed statistical information, and
- Need for the Department to consider using internal resources (outside the ERD) to develop additional data for ERD use

The project team also used the review as an opportunity to assess what further support might be provided in order to assure that the institutionalization of policy reform was well established Areas that were identified for longer-term support and assistance included continued training on computer basics, some advanced training on computer software usage and database development, workshops on report writing, intra-Department meetings to help ERD staff understand reports from the General Sales Tax Administration Computer System (GSTACS) and the kinds of data tabulations that could be developed from it for analytic use, further training on the Indirect Tax Model, and continued review of analytic methods employed by the ERD

Current Status

The diagnostics, training, and ITM installation missions proved to be watershed events for the ERD component of the project Although training and technical assistance continued throughout the project's existence, by 1995 the Sales Tax Department's ERD was established and the PFAP resources focused on providing assistance on specialized topics jointly identified by the ERD and the project team Subsequent project missions reviewed ERD operations and addressed issues raised by Senior Officials and Commissioner Mahmoud Ali Most of these revolved around continued training and computer needs

By the end of the project, and after a prolonged period of training and learning on the job, the ERD has proved to be capable of providing senior Sales Tax Department Officials with analyses grounded in the fundamentals of tax policy principles, utilizing the techniques of economic and econometric analysis, and reflecting the practical experiences of senior staff knowledgeable in implementing a modern sales tax

TAX DEPARTMENT

In the Tax Department, the creation of the ERD moved forward at a slower pace than the Sales Tax Department for two somewhat related reasons First, the Tax Department already had an established Research Office, which by its name suggested that it might be comparable to what the project team envisioned as a functioning ERD for the Department However, this office provided primarily legal research and opinions on tax issues that arise between the Tax Department and the taxpaying public it had little, if any, economic or quantitative capabilities and provided no analyses of the kind envisioned by the project team of an ERD Second, there was no one in the Tax Department who championed the ERD initiative Former Commissioner Fathi Abd El Baki argued initially that he already had a research office, and only slowly accepted the project team's position that the proposed ERD was different from the existing research office

In March 1991, the project sent the first of several memoranda to the Commissioner urging that an ERD be created in the Tax Department For the reasons noted above, there was no action taken on the issue for nearly two years Finally, in February 1993, the Tax Department expressed interest in establishing an ERD along the lines of those proposed by the project team and in April the project team was asked for a memorandum on how an ERD might operate in the Tax Department That month, the project team sent the Commissioner a comprehensive plan on establishing an ERD in the Tax Department, complete with personnel requirements and suggested training In an effort to stimulate interest in the potential for such a unit, a member of the project team brought the corporate tax model to Cairo, ready to demonstrate to the Office of the Minister and to the staff of the Commissioner and encourage ERD development Although the proposed demonstrations did not take place, it became clear that despite the project's earlier efforts, senior staff in the Commissioner s office viewed setting up an ERD and installing project models on computers as basically an IT effort and not as a process of developing skilled individuals for whom the models were but one of several useful tools

Nonetheless, the project team made a concerted effort in the ERD initiative, especially since the Global Income Tax had just been enacted which provided a renewed opportunity to identify the benefits of an ERD for the Tax Department In January 1994 the project team again forwarded to the Tax Department a detailed memorandum describing the potential responsibilities, work products and staffing requirements of an ERD[14] This memorandum was followed by meetings with Tax Department officials and, ultimately, by the formation of an ERD in July 1994 [15] At the request of the Tax Department, the project team interviewed 11 nominees and found them to be suitable candidates for the ERD, they were then assigned to this new organizational unit

Training Program

Once the new ERD was created in the Tax Department, the project team attempted to actively and aggressively provide technical assistance and support so that this unit could move to the same level of expertise that had been achieved in the Sales Tax Department This assistance and support ultimately consisted of providing general analytic training to the unit, purchasing computers and software for the ERD, installing the project-developed direct tax models in the ERD, training the staff on their use, and providing technical support and assistance as needed

Training, a key element in establishing an ERD, was provided in a fashion similar to that provided to the Sales Tax Department's ERD However, due to the more numerous taxes covered by the Tax Department, and the nature of the taxes themselves, the content of the training program was somewhat broader To this end, in August/September 1994, the project team designed and submitted to the Commissioner a comprehensive training program for the new staff, which was also to be attended by appointees to the ERD newly established in the Minister's office (discussed later in this chapter) A copy of the training program submitted to the Tax Department detailing its components, the time allocated to each component, and the agency/individual with primary responsibility for the training is attached (See Appendix IV-A) The principles guiding the training plan were the following

- Training would take place for approximately four hours per day to allow the staff to attend to their other assignments
- Training in statistical skills could be limited, since the staff already had the necessary basic skills
- Training on computer basics would be necessary
- The program should make extensive use of in-country expertise
- The modeling component should have two stages delivery of models and introductory training followed by more extensive training after the staff had hands-on experience with the models
- The program and schedule should be revisited following a diagnostic mission approximately six months after training begins

[14] This report was expanded and updated in November 1996 for the new Minister of Finance and the new Commissioner of the Tax Department

[15] The Tax Department s ERD is formally called the Economic and Tax Analysis Department (ETAD) but for ease of exposition, it is referred to in this report as the Tax Department s ERD

73

This training was also designed to give overall direction to a unit composed of individuals with little familiarity with each other or with what might be expected of them As before, the project team's initial lectures combined such topics as the role and responsibilities of the unit, how to think about revenue estimating, and effective presentation of results to senior officials, along with such technical issues as receipts forecasting and monitoring, principles of tax analysis, and the relationship of economic aggregates to tax bases The program was intended not only to cover all aspects of forecasting and analyzing direct taxes in Egypt, but also to introduce the staff to departmental operations in other parts of the Government as a way of strengthening the unit

Concern over the diverse backgrounds of those ultimately selected for the unit, their lack of experience in forecasting revenues or analyzing tax policy, and the fact that most were required to continue work in their prior offices for an indefinite time, led the project team to emphasize training as the means to tie the group together and to push for a fixed work site for the unit The latter was particularly necessary in view of the project's commitment to delivering the models it had developed to the ERD so that it would have tools immediately available for use in responding to requests Ultimately the ERD was housed in permanent offices close to the Commissioner's office and that were specially prepared to accommodate computer requirements

The training program was initiated October 1994 with the introductory training described in the next section

1 Introductory Training on Direct Taxes and the Role of the ERD

As in the case of the Sales Tax Department ERD, the first step with this newly formed unit was to understand its role and purpose in serving the Tax Department's needs The lectures were therefore designed to give overall direction to a unit composed of individuals with little familiarity with each other or with the anticipated scope of work for the newly formed department The sessions covered both general topics related to the issue of revenue estimating and topics where very specific approaches and techniques were presented [16] The following areas, among others, were covered in the training

- General Topics Related to Tax Analysis
  - Principles of tax analysis
  - The relationship of economic aggregates to tax bases
  - Potential data sources and uses developing contacts in other agencies
  - Tools and principles of tax analysis (i e , Lorenz curves, equity, tax incidence, efficiency)
  - Presentation of results
- General Topics Related to Revenue Estimating
  - Receipts forecasting and monitoring
  - Forecasting techniques and evaluating estimates
  - Making revenue estimates for changes in law

[16] The training mission also reviewed the status of the ERD and made several operational recommendations including formally organizing the staff into operating units, assigning specific responsibilities to different individuals, and appointing leaders

- ◊ Types of revenue estimates (i e cash collections, liability, long run)
- ◊ Examples of revenue estimates

- ♦ More Specific Topics Related to Revenue Estimating
  - ◊ Forecasting baseline (current law) receipts (and the "horseshoe" curve)
  - ◊ The relationship between liability and cash collections
  - ◊ Deriving business GDP from business financial records
  - ◊ Developing monthly cash receipt estimates
  - ◊ Analyzing actual collections
  - ◊ Developing revenue estimating models (with take home example)
  - ◊ Effective dates, excise tax offsets, behavioral responses, and other specialized topics relating to revenue estimates
  - ◊ Possible ways to assess the revenue effects of changes in tax administration

The bulk of the training plan developed by the project team was deliberately designed to take advantage of local resources and to expose the trainees to different agencies in the Government Once the introductory training was completed, training in the specifics of Egyptian tax laws and regulations began In the period from November 1994 through January 1995, the Tax Training Institute provided training on the law and operation of direct taxes in Egypt and on accounting principles (important for understanding the calculation of various tax bases)

2 Economics, Statistics, Econometrics, and Public Finance

The training in this area was patterned to a significant degree after that described earlier for the Sales Tax Department's ERD In addition, to the training in public finance and econometrics the project team's training covered also such specialized economic topics as

- ♦ Macroeconomics and policy analysis,
- ♦ Aggregate demand sectors,
- ♦ National income accounting,
- ♦ Money and capital markets,
- ♦ Stabilization policies,
- ♦ Introduction to international economics, and
- ♦ Inflation, unemployment and aggregate supply and demand

In addition, the project team worked with the ERD to establish macroeconomic databases and held training sessions on data research using domestic and foreign sources and methods used to establish databases This training was done through a combination of on-the-job training, workshops and lectures and was generally provided to staff from both the Tax Department and the Ministers' office) [17]

[17] This represented a deliberate effort to build support across agencies to the two new ERD staffs even though the staff in the Minister's office would have a broader focus

75

In January 1996, attendance at the weekly training sessions was interrupted, apparently due to the change in Commissioner The project team consulted with the Department as to its future intentions and anticipated that the sessions would quickly resume However, things took a little longer than expected and in the interim three computers procured by the project arrived and were installed in the ERDs offices The project team then started working with the ERD again by familiarizing the staff with using computer software in their revenue and analytic work, providing guidance on analyzing additions and discounts, and meeting with Commissioner Usama to familiarize him with the role of the ERD and the assistance provided by the project to the unit The Team provided further assistance to the ERD in analyzing Discounts and Additions using the newly installed models (see *Direct Tax Models* below)

In July 1996, Commissioner Usama retired from the Tax Department and was replaced by Mr Fakhry Saad El-Din Awad The Team continued working with the ERD on issues involving the tax models and other technical issues Soon after that, the Team conducted a review of the ERD's progress to date, provided additional training on revenue estimating as needed, reviewed development needs, and set up a proposed workplan to meet these needs The Team also met with Commissioner Fakhry to discuss the role of the ERD and what it might offer the Commissioner The Commissioner expressed a strong interest in the work of the ERD, the need for good data, and the need for good analyses in modern decision making

3 Direct Tax Models

The analytic models used to quantify the revenue and distributional impacts of current and proposed changes in tax law were a vital component of the project team's contribution to the debate over tax reform in Egypt Although they were developed before ERDs were established, it was always the intent of the project team to transfer this modeling technology to the ERDs of the respective departments and the MoF The direct tax models, like the Indirect Tax Model in the Sales Tax Department, are valuable tools for both policy analysis and revenue estimating They embody fundamental macro and micro economic principles that must be understood in order to successfully use the models Facility with use of computers is also required to operate these models

In December 1994, Dr Galgnaitis and Ms Melhem conducted training on the computer models developed by the project team Although formal tax models are not the only tools available to the ERD for analyzing taxes, they are a principal one This training was done on project computers, since at that time the ERD did not have its own computers The models on which training was provided included

- The corporate tax model,
- The commercial and industrial profits tax model, and
- The wage tax model

The training included a general review of pertinent tax laws and an introduction to each model followed by hands-on training The topics covered for each of the models included the following

- Construction of a database,
- Forecasting of database to future years,
- Development of a Microsimulation Model,
- Understanding of the output tables,
- Making changes and running the model using the user-friendly menu system, and
- Analyzing the results and presenting them to policy makers

In early 1996, following some unanticipated delays in procuring computers for the ERDs, a training mission was launched to familiarize the ERD with using computers in analyzing taxes At that time, the project team installed the models on the ERD computers and provided refresher training on using the models for tax analysis

Over the next several months, the ERD staff used the models, any issues that arose were addressed jointly by the project team in Cairo and in Washington, DC After that, during a diagnostic/training mission, the project team was assured that the ERD was running the models in its work and, aside from some relatively small issues (later addressed by the project), had no problems with simulations or outputs

In March 1997, during meetings at the Tax Department, the Commissioner asked the project team to work with the ERD to update the income tax databases used in the models Developing databases in general had been part of the ERD training The need to collect more recent tax return data in the appropriate format to use as input to the models was an issue the project team had anticipated and raised with the ERD staff on an informal basis soon after the models were installed on their computers However, a formal process for updating the databases had not been initiated in part because the ERD was still in start-up mode

In effect, until early 1997, the ERD staff focused on learning how to use the computers and the project models and was not in a position to tackle updating the various model databases

In August 1997, the project team undertook an intensive effort to work with the ERD staff to update and extend the Corporate Tax Model database This effort was intended both as a training device on updating models in general and as a way to leave in place a plan and structure for updating the Tax Department's various models The project team focused on the practical issues involved in designing a sampling program in the Egyptian return filing environment and on the numerous practical and logistical details that must be anticipated and addressed as the sample is drawn and the required data are transcribed and verified

In February 1998, Mr Nester returned to Cairo on a training mission that included reviewing progress to date in updating the database and assisting the ERD in this effort After reviewing the direction taken by the ERD in initiating its sample, the project team produced a series of memoranda and notes to assist the ERD in its effort, including such topics as "Initial Corporate File Selection," "Determining an Efficient Sample Size,' and "Example Using Random Numbers " As part of its assistance to the ERD in its ongoing efforts to define a role within the Commissioner's office, the project team also gave the ERD a paper on "Monthly/Quarterly Reports, Possible Formats "

4 Training in the Use of Computers

Computer technology plays a central role in the capacity of an economic research unit to deliver detailed, accurate, and timely analyses Computer literacy was therefore an important component of the training that the project team provided to the ERD Training provided by the project team ranged from computer basics to the mechanics of installing and maintaining the files and software that make up the project team's microsimulation models It was provided through both formal training, informal sessions with the staff, and on-the-job training

The missions by the project team members who were involved in setting up the ERDs and providing training on fiscal policy and analysis were particularly important in giving the ERD practical training in using computers in their daily work Each mission inevitably included some (and often extensive) computer-related training as a result of introducing analyses, spreadsheets, and models to the ERD The techniques of manipulating the data within spreadsheets, sorting files, keeping and updating data bases, running regressions, producing graphs and tables, etc that were embodied in the materials presented to the staff usually resulted in a request (and opportunity) for the Team to introduce (or reinforce) various functions in the software that had been provided to them The most useful of these were Excel, SPSS, Word, and Timeline

Soon after the ERD was established, and as part of the comprehensive training plan set out for the staff of the ERD, the Tax Training Institute (TTI) provided the ERD with formal training on the basics of computers (Computer Literacy, November 1994) and software (WordPerfect, December 1994) This was supplemented by periodic assistance from various members of the project team, including training on Word, advanced Excel, Access, Timeline, memory management and printer functions

Current Status

After a relatively slow start, the ERD has established itself as a unit capable of providing analyses to the Commissioner By the time of the project's 1996 needs-assessment mission, the ERD staff could use all of the models developed by the team and were creating their own spreadsheet models to address specific issues The unit is moving on developing the skills and techniques that practical experience teaches in building extensive databases Notwithstanding this progress, the unit appears to be quite under-utilized Requests from the Commissioner have apparently been relatively few in number If the ERD is to be successful longer term, it must be better integrated into the Department's operations

MINISTRY OF FINANCE

The Project Paper as amended in 1992 had called for establishing a central level research unit in the MoF It was generally understood that the new unit would be located within the Office of the Minister and be responsible for addressing issues of direct concern to the Minister Although several efforts were made to achieve this objective, including assigning individuals to the unit and providing training and resources to this new staff, by the end of the project the research unit no longer existed as a separate entity, the resources and individuals originally allocated to the unit had been reassigned to other departments or no longer worked for the MoF

78

As was true of the efforts to build an ERD in the Tax Department, there was little formal championing of the ERD in the Minister's office during the early years Only with the passage of tax reform and renewed efforts by the project team in 1992 and 1993 to set up an ERD, that the Office expressed more than a passing interest in the unit However, in early 1994 the Minister s aide, Mr Kallaf, asked that the project provide him with material on the role of an ERD in the Office of the Minister and, after several months, the ERD was approved At that point, the project team combined their efforts to staff and train the ERD with their efforts to do the same for the Income Tax ERD Staffing started in August 1994 and by October 1994, the Team was able to jointly provide initial training on fiscal policy analysis and revenue estimating to staffs of both units

At that time neither staff was operating from permanent offices in their respective departments and most individuals had ongoing responsibility for the jobs they held prior to their new assignment The project team's recommendations at that point included recommendations for formally organizing the staffs into operating units, locating them in permanent offices with ready access to senior officials in their departments and assigning them full time responsibility for fiscal analysis

Over the next year and a half, the project team provided technical and logistical support to this new Economic Research Department (ERD) This included training on the indirect, corporate, wage and commercial and industrial profits tax models, as well as other technical training The staff was given training at the Zeitoun Training Center on tax laws, use of computers and software applications Notwithstanding this significant training effort the MoF ERD did not get well integrated into MoF operations The staff had conflicting responsibilities and they did not have a common physical location out of which to work As a result, over time the ERD members in the MoF returned their attention to other duties By the end of 1995 progress and momentum had been lost

In March 1996, with the procurement of computer systems for the MoF ERD, a further effort was made The project team initiated a concerted effort to install the tax models on the new computers, train the staff on using the hardware and software, and continue their training on policy analysis and revenue estimating as they had done for both the Sales Tax Department and the Tax Department However, the size of the ERD kept shrinking as a result of staff requesting extended leave for personal/family reasons, leaving the country, changing jobs, etc A group that started with eight staff in October 1994 was whittled down to four by June 1996, and to an even smaller number a year later

It was ultimately concluded by all parties that the project's focus should be on strengthening the two already-established ERDs, on which the Minister's office can also rely, and that an MOF ERD can emerge in the future out of these two ERDs

FUTURE WORK

A substantial investment has been made by USAID, the departments, and the project, in establishing and training the ERDs These ERDs can provide valuable analytic support to senior officials in the departments in revenue estimating, policy analysis, and quantitative analysis of a broad range of administrative issues In effect the ERDs can serve as *the* analytic resource to the Commissioners and other senior officials in the departments

For the ERDs to be effective, it is important that the Commissioners and others draw upon their expertise on a regular basis, and that the ERDs in effect be integrated into the departments' operations and activities If they are not used regularly, and not integrated into the departments' operations, there is a significant risk that the units will atrophy over time

Efforts should also be made to continue to provide technical training to the ERDs, both to reinforce training that has been provided by the project team and to continue to expand the analytic horizons of the staff This further training could be provided by a follow-on project, or through Department-financed outside technical training, which could include an active role by one or more academic consultants to the respective departments to help guide their work and training The latter approach has been used to some benefit by the Sales Tax Department

To help assure that the ERDs remain active, and a part of the departments' operations, the project team prepared for each department a work agenda and a set of continuing responsibilities that would achieve these objectives This agenda is in many respects a summary of prior communications to the Commissioners and the ERDs on the roles and responsibilities of these units, but it summarizes in one place a going forward agenda and schedule for each ERD Each of the Commissioners has endorsed the respective agenda for his department's ERDs, and the project team is confident that the ERDs can and will provide valuable support to the department in the years ahead

With regard to the issue of creating an ERD in the Office of the Minister, the arguments in favor of such a unit remain valid Each of the revenue-raising departments – and here we would include the Customs Department as well as the Tax Department and the Sales Tax Department -- has its own issues to address While there is increasing coordination and cooperation among the departments, their scope of responsibility is necessarily constrained Only at the Minister's level can the full range of issues, and tradeoffs, effectively be considered among the different revenue sources Nevertheless, the project team recommends that the focus of attention be on institutionalizing the ERDs in the Sales Tax Department and the Tax Department in the immediate future The Minister's office can, when needed, use both of these resources to provide input to the broader range of tax issues that the Minister is likely to face, and possibly an ERD for the Minister's office can emerge out of these two ERDs

80

APPENDIX IV-A

TRAINING PROGRAM FOR THE NEW ECONOMIC RESEARCH DEPARTMENTS

September 1994

PART I BASIC TRAINING

A The Basics

(Combined training for both units)

Introduction to the role and responsibilities of an ERD

- 3 days
- Responsibility Home office (Nester)

Introduction to revenue estimating, use of spreadsheets, data collection and manipulation

- 4 days
- Responsibility Home office (Nester)

Principles of tax policy analysis (horizontal equity, vertical equity, administration, compliance, etc)

- 3 days
- Responsibility Home office (Nester)

Review of report writing for senior officials

- 2 days
- Responsibility Combined home office and project office (Clayton/Nester)

B Introduction to taxes in Egypt

Direct taxes (current law, recent legislation, prospects for the future)

- Combined training for both units
- 2 1/2 days
- Responsibility MoF (TTI or MoF internal resources)

OPTION Prospects for the future only

- Combined training for both units
- 1/2 day
- Responsibility project office (Clayton and/or Gordon)

Indirect taxes (current law, recent legislation, prospects for the future)

- Office of the Minister ERD only
- 2 days
- Responsibility project office (Setter and/or Cunliffe)

81

Alternative Training provided by the TTI (if they have experts on Indirect Taxes)

Customs duties

- Office of the Minister ERD only
- 2 days
- Responsibility MoF (Customs Department or other internal resources)

OPTIONAL Separate training on other taxes (e g , stamp, social security)

- Combined training for both units
- 2 days
- Responsibility MoF (internal resources)

Alternative Overview provided by project office (Clayton and/or Gordon)

NOTE All of the above training should be monitored by the project staff

C Accounting Principles

- Combined training for both units
- Intended to introduce accounting to economists and statisticians, since accountancy income is the starting point for determining tax income
- 10 days
- Responsibility MoF (internal resources/audit departments)

D Computer Resources and Tax Models

Introduction to Computers

- Combined training for both units (however, size of groups and availability of computers may make smaller training units necessary This will add to training time)
- 5 days
- Responsibility project office (Ahmad)

Income Tax Department ERD

- Installation and training on models
- Includes the wage tax model, the corporate tax model and the commercial and industrial profits tax model
- 10 days
- Responsibility Home office (Melhem/Galginaitis)

Office of the Minister ERD

- Training on tax models
  - ◊ Wage Tax Model
  - ◊ Corporate Tax Model

82

- ◊ Commercial and Industrial Tax Model
- ◊ Indirect Tax Model

- Assumes that the staff needs to know about the models but not necessarily have to run them

- Training on all models other than the indirect tax model is combined with the Income Tax Department ERD training

  - ◊ 10 days on direct tax models
  - ◊ 3 days on indirect tax model

- If the models are to be run by the Minister's ERD staff, an additional 5 days will be required for installation of models and hands-on training

- Responsibility Home office (Melhem/Galginaitis/Mizrahi)

Subsequent follow-up on computer fundamentals

- Combined training for both units
- 5 days (or on an "as needed" basis)
- Responsibility project office (Ahmad/Hernandez)

E Data sources and uses within the Ministry of Finance

Visit to the Income Tax Department

- Combined training for both units

- 2 days (Overview)

- 2 days for review of management information reports (Manual and Computer (Samir Hussein's Division) systems)

- Responsibility MoF

Visit to Sales Tax Department ERD

- Combined training for both units for initial visit (designed to demonstrate how an ERD works, outputs, interactions, etc)

- 1 day (second day may be necessary overview)

- 2 additional days for Office of the Minister ERD to review of management information reports (Manual and Computer Systems)

- Responsibility MoF

Site visits to tax offices

- Combined visit to income tax offices (and possible visit to Customs or other tax centers)

- 2 days

62

- 1 additional day for the Office of the Minister ERD staff to visit sales tax
- Responsibility MoF

F Other statistics

(Combined training for both units)

National Economic statistics

- 5 days
- Responsibility MoF (Information Center/Central Bank)

CAPMAS

- 1 day visit to become familiar with available statistics
- Responsibility MoF

Central Bank

- Day visit to become familiar with available statistics
- Responsibility MoF

Central Department for Information

- 1 day visit to become familiar with available statistics
- Responsibility MoF

G Specialized training for the ERD in the Minister's Office

- Development of the 5 Year Plan (1 day)
- Developing and enacting the annual Budget (1 day)
- Responsibility MoF (Information Center/Central Bank)

H Statistical/Econometric Techniques

- No significant training is scheduled for either unit Needs for any specialized training will be identified after the units have started operations or significant gaps revealed during planned training
- It is anticipated that the units themselves will provide much of their own training using staff members
- At a minimum, the staff should indicate proficiency in the following
  - ◊ Sampling
  - ◊ Linear and non-linear regressions
  - ◊ Trend and time-series model forecasting

PART 2 DIAGNOSTICS AND FOLLOW-UP TRAINING

A **Initial Follow-up on Models and Usage** (and installation of final versions)

- 6 to 8 weeks after delivery
- Anticipates that models may be modified in response to input from staff
- Income Tax Department ERD
- 5 days
- Responsibility project office (Galginaitis or Melhem)

Office of the Minister ERD

- 3 days
- Responsibility project office (Galginaitis or Melhem)

B **3 to 5 Month Diagnostics and Final Training**

1 **Diagnostic of Computer and Related Needs** (e g , office space, administration of each unit, effective role in the Department)

Income Tax Department ERD

- 8 days
- Responsibility project office (Ahmad/Clayton)

Office of the Minister ERD

- 5 days
- Responsibility project office (Ahmad/Clayton)

2 **Operation Diagnostic and Final Training**

- Once the units have been operational for a period of time (3 to 5 months), the project team will review operations and materials prepared for senior officials
- It is anticipated that additional training on writing and presentation of results will be needed

Income Tax Department ERD

- Includes review of operations and output and follow-up training
- 10 days for review
- Responsibility Home office (Nester/Melhem) and project office (Clayton)
- 5 days for follow-up training
- Responsibility Home office (Nester/Melhem) and project office (Clayton)

Office of the Minister ERD

- Includes review of operations and output and follow-up training
- 5 days for review
- Responsibility Home office (Nester/Melhem) and project office (Clayton)
- 5 days for follow-up training
- Responsibility Home office (Nester/Melhem) and project office (Clayton)

V ADMINISTRATIVE REFORMS

BACKGROUND

THE LINK BETWEEN POLICY AND ADMINISTRATION

As the focus of the discussion shifts from policy reform to administrative reform, it is worth introducing the subject with a brief discussion on (i) the importance of administrative reform and (ii) its place within a comprehensive project like the Public Finance Administration Project

It is the effectiveness of administration that ultimately determines whether the tax system is successful in achieving its policy goals Registrant identification, assessment of tax, collection, and audit are all critical to success of any tax regime, and it is important that they be accomplished effectively and at relatively low cost to all concerned parties Simplicity always emerges as an important attribute of the system in addressing these broad functions of a tax administration system These broad functions, in turn bring to the forefront issues about forms, instructions, procedures, appeals penalties, and internal organization, to name but a few It is within the proverbial trenches where the tax battle is ultimately won or lost A good tax policy, poorly administered, will not be a major success

While sound administration is ultimately a *sine qua non* of a successful tax regime, an important issue arises as to ordering of policy and administrative reforms The conventional wisdom for which there is much to be said, is that one must get the policies right first and then deal with administrative problems [18] In Egypt for example, the focus on improvement of the indirect tax system was appropriately on implementing a modern sales tax system, patterned after a value-added tax Devoting considerable resources to trying to improve the Consumption Tax would not have represented a sound use of scarce resources It could equally be argued with regard to income taxes, that spending substantial resources to improve administration of the complex schedular tax system, or of the cumbersome Discounts and Additions system, would have been an equally unsound use of scarce resources

Recognizing that many issues are ones of degree, however, it is also the case that one would not want to proceed with the implementation of a major new tax, like the General Sales Tax, and not be able to administer it reasonably effectively If the business community finds that the Department is not able to administer the tax ably, non-compliance and evasion can become the norm rather than the exception Recognizing that voluntary compliance is the basic pillar of any good tax system, this cannot be allowed to happen The same argument could be made for the introduction of the Global Income Tax If the taxpaying public is being told that a new and improved system of income taxation is being introduced in Egypt – in an environment in which prior administration has been noticeably lax and evasion has been a major problem – one can

[18] See, for example, Roy Bahl The Economics and Politics of the Jamaican Tax Reform " in *The Jamaican Tax Reform*, Lincoln Land Institute 1991 p 57

56

expect that the claims of a new and improved system will be tested A poor start, whether for an entirely new tax, or for the overhaul of an existing tax, is therefore likely to sow the seeds for future difficulties

The Public Finance Administration Project, to the credit of those who designed it, provided a reasonable balance between these two perspectives Phase I gave emphasis to policy reform as evidenced by the discussion in Chapter III, and this emphasis was very appropriate in the Egyptian context But it also provided the resources to support upgrading and improving administration, broadly defined This upgrading included training and personnel development, recognizing that professionalism and competence of the tax department civil service is ultimately a major determinant of success or failure

TAX ADMINISTRATION TECHNICAL ASSISTANCE UNDER THE PFAP

Technical assistance to support improved administration of sales and income taxes was ongoing, and extensive, throughout the life of the project In the case of the sales tax, much of the initial work was focused on preparing the Department for the implementation of the GST, and in the immediate period thereafter, managing the transition from a consumption tax to a sales tax Once this implementation was completed, there was an ongoing, steady process – under the direction of Commissioner Mahmoud Ali Indeed, it was Mr Mahmoud Ali's vision and sustained energy throughout the course of the project that continually moved the Sales Tax Department forward towards a better organized, more effective, and more modern approach to tax administration in Egypt The scope of this Department reform was very broad and included modernizing and improving the Department's organization, its processes and procedures, and its training of department personnel

The project team was able to bring a highly-experienced team of indirect tax administration professionals – most of whom came from countries other than the United States, since the United States remains as one of the few countries that does not have a value-added tax system – to support this effort The effort was led by Mr James Setter, an indirect tax administration professional from New Zealand, who had a lead role in his country's successful introduction of a sales tax (viewed by many as the model VAT in the world) and had also led a sales tax implementation effort in the Caribbean Mr Setter worked on the project for eight years, more than five of which were in a resident advisor capacity, the continuity of his support was very important to the project's success in this area The effort was also supported in a significant way by a number of other sales tax administration advisors who participated on a long-term basis (Mr Tony O'Sullivan from Ireland, Mr Bernard Cunliffe from the United Kingdom, and Mr David Parsons from the United Kingdom) or a short term basis All of the advisors had the opportunity to work closely with senior officials in the Sales Tax Department, since the project team was considered an integral part of the Department's reform and modernization effort

The income tax administration effort proceeded at a somewhat different pace, schedule and process from sales tax administration, in part due to the different schedule for major reforms in the Department In the case of the Tax Department the project team advisors provided reports and guidance to the Department, but, in contrast to the sales tax work, they were not integrated into the Department's planning and operations It was not until the planning for the Global Income Tax that this transition was made and then subsequently sustained While many people

81

contributed to the tax administration reform effort, Mr Richard Clayton deserves particular mention Mr Clayton, a highly experienced tax administration professional served on the project for five years, the last two years as Chief of Party, and contributed greatly to supporting reform of the Tax Department's operations Messrs Arnold Gordon (Chief of Party, 1993-95), John Baldwin, W M P Weerasinghe, and Mr Daya Weeraratne also deserve special mention for the major contributions they made in a resident capacity

In the discussion that follows, the project team's efforts with the Sales Tax Department are first discussed, followed by a discussion of those related to the Tax Department The distinction between the two departments is not meant to suggest that there was not substantial coordination of work, or sharing of common approaches, with the departments where appropriate There was But the work did proceed at different paces, and in different ways, making this organization of the presentation appropriate

SALES TAX DEPARTMENT

Accompanying the implementation of the General Sales Tax (GST), the leadership of the Department made a commitment to the complete reform and modernization of the Department The stated goal was to make it a model for other Departments in the Ministry of Finance, if not of other Ministries as well As noted earlier, Commissioner Mahmoud Ali was the driving force and visionary behind this internal reform, but he clearly had the full support of Minister Razaz and, subsequently, Minister Gharib in this effort

The challenge was a formidable one The Department was being asked to administer an entirely new type of tax, one based on financial records rather than physical quantities It was being asked, simultaneously to shift from a manual system to an automated system And it was being asked to accomplish these major changes with essentially the same staff, augmented to accommodate additional work levels, in a very short period of time It was in this environment that the project team had the opportunity to become part of the Department s team in supporting organizational and procedural reform within the Department

The discussion of the project team's work in supporting these reforms and modernization initiatives is organized into five separate sections (i) major tasks associated primarily with, or performed at the time of, implementation of the GST, (ii) organizational reforms, (iii) improvement of operating procedures, (iv) the Model district office initiative, and (v) a closing perspective on the Department's efforts to plan for extension of the tax to the retail level

MAJOR TASKS ASSOCIATED WITH IMPLEMENTATION OF THE GST

Implementation of the GST involved support across the full range of tax administration activities, including in the areas of organization and procedures, which are presented as separate sections of this part of the report The sections discussed here are focused on major components of the project team's work that were concentrated at the time of the GST implementation effort, even if the activities continued on after GST implementation The four components discussed here are (i) registration, (ii) development of a tax administration number (iii) forms development and (iv) registrant assistance and publicity

1 Registration

Because registration represented the first step in the implementation process, it received a substantial degree of attention at the commencement of the project team's work with the Department This effort included three major efforts the first was to identify potential sales tax registrants, to support the Department's efforts to plan for and later monitor actual registration, a second was to prepare the necessary materials in support of registration, and a third was to develop and implement a process for registration, including training department staff The project team, working with the Department's Registration and Survey Committee (See Exhibit III-2) provided extensive support to all of these efforts

- *Developing a database of potential registrants* With guidance from the project team, the Department collected data from a variety of sources including Customs Department data on importers, Chambers of Commerce data on business licenses, and internal data collected from within the Consumption Tax Department A listing was developed of more than 53,000 importers and domestic manufacturers who could, potentially, be required to register under the new Sales Tax Law

  Because a variety of sources was used in creating the list of potential registrants, there was inevitably some duplication This was addressed through the first administrative application of computers in the Department In a joint project team- Department effort, and with data entry support from the Income Tax Department, the names and addresses of potential registrants were entered into the computer and then printed out in alphabetic order by district Duplicates were then identified manually and subsequently removed from the system At the end of this process, the number of potential registrants was reduced to 47,000 It was expected that even this listing still included many duplicates that were not detected and it was recognized that many of the businesses would fall below the threshold of registration The project team and the Department jointly estimated that approximately half of those identified would ultimately register under the new GST

  Once duplicates were removed, department programmers then prepared computer print outs for each district office, listing the names and addresses of potential registrants to whom copies of registration materials should be distributed This listing provided a basis for District offices to both plan for registration and, ultimately, to monitor it once the registration process began As noted below, however, the planned process had to be modified when implementation actually occurred

- *Preparation of registration materials* Mr Mahmoud Ali relied heavily on the project team advisors for the preparation of public and internal materials that were required to support the registration process These materials included a registration form, a registration certificate, to be issued to each registered person, a Guide to Registration to inform registrants of their requirements under the new law, and internal instructions and materials for department employees The project team advisors, working with the Forms Committee led by Mr Mohammed Mahrous and the Publicity Committee led by Ms Salwa Abd el Raoof, took the lead in preparing all of these materials and having them translated into Arabic It then used project-acquired computers to print "camera-ready" copies of the form, certificate, and guide, from which the Department arranged for the printing of the required numbers of copies

89

- *Registration process* The project team helped develop and implement a registration process that included training department staff involved in registration, educating the public, and monitoring registration once it began The planned process allowed for one to two months for registration prior to implementation of the new tax and for the use of a project-developed computer program to compare registrants against the originally prepared listing In fact, the GST was enacted and implemented at the same time, without any notification period, which required some modification of the planned process Most notably, the district offices did not have the time originally envisioned to monitor closely the registration of businesses relative to the lists of potential registrants that they had been given This process was done over time, and after, rather than before, implementation occurred Notwithstanding some difficulties associated with immediate implementation within three months of introduction of the GST 21,200 persons and businesses were registered, very much in line with original project team and department estimates

It is worth noting that, as the Department plans for extension of the tax to the retail level, it is following a process similar to that adopted when planning for the GST The Department is using its computer systems to organize lists of potential registrants, just as before (the total number of potential registrants from this data collection effort is over 263,000) and the project team and the Department have jointly reviewed the existing registration materials to assess how they should be modified for a tax extended to the retail level In preparation for the extension of the tax to the retail level, the Minister of Finance issued decrees in August 1997 asking potential registrants to notify their nearest district office While it is not clear how successful this request has been in gathering information, it appears that the district offices have been able to draw up reasonably comprehensive lists of potential registrants for immediate contact at the time of the extension through liaison with their local Tax Department offices and through other means

2 Tax Administration Number (TAN)

Computerized tax systems use numbers rather than names as the primary means for identifying "customers" and processing information A Tax Administration Number, or "TAN," as it came to be referred to in Egypt, is a number that is used to identify a registrant or taxpayer, much like the social security number or tax identification number in the United States Since the Department had made the commitment to begin introducing automated data processing at the time of introduction of the GST, it was important that the Department adopt a numbering system that was compatible with such a system Under the Consumption Tax, the Department had a numbering system, but it was not unique and was unsuitable for use in a computerized environment

While, on the surface, this might appear to be a straightforward exercise, in fact it was not The characteristics established by the project team for such a number, based on the experiences in many other countries were uniqueness permanence, optimum character length (long enough to accommodate the current and future tax population, and no longer), and reliability [19] Also, the project team was proposing the use of a single number for all tax departments to facilitate information exchange between the different departments (thereby creating inter-department

[19] The issues associated with developing a taxpayer identification number are discussed in Dr Malcolm Lane s Project Report, "Computerization of Tax Administration in a Developing Country," January 1990

coordination issues that were not easily resolved) As a result, the development and subsequent adoption of a TAN proved to be a major project in and of itself

The Tax Department had a numbering system in place but that number did not meet many of the attributes listed above Indeed, the creators of the original Tax Department numbering system succumbed to the temptation to have the number incorporate information about the taxpayer (type of business, location, etc), which conflicted with the aim of the TAN to be permanent and of limited length It also appeared that the Tax Department's number was unique only at the district office level, not at the national level It also lacked what is referred to as a "check digit," which is an additional digit that is calculated through a mathematical algorithm and incorporated into the number The purpose of this digit is to validate the number by detecting transcription and/or transposition errors

The Social Insurance Organization (SIO) was developing new identification numbers that could have been considered The Social Insurance Law required every employer of one or more persons to make contributions on behalf of their employee(s) The SIO maintained two masterfiles, one of workers accumulating insurance credits, the other of employers responsible for remitting contributions While the project team viewed the SIO with some favor, the suggestion met with resistance Indeed, the decision initially made (and only much later amended) was to allow the departments to use separate numbering systems

Accordingly, the project team set about to create a modern TAN for the Sales Tax Department and received department agreement to use an eight digit TAN, plus a check digit This was of suitable length to be issued on a unique basis to all existing and future registrants, and would be a permanent and unique number The check digit in turn, ensured reliability because it served to identify input errors All of the criteria for a TAN were thus met

Separate numbering systems existed, in each Department, for some period of time, until 1994 At that time after considerable discussion and at Mahmoud Ali's urging, the Tax Department accepted the recommendation to use the same numbering system that was deployed for the Sales Tax Department The driving force behind this inter-department agreement was the desirability of exchanging information in the interests of improving tax compliance of all taxes in Egypt The active support of the Minister of Finance was instrumental in gaining this agreement Subsequently the Customs Department also adopted use of the TAN

3 Forms Development

In support of implementation of the sales tax, the project team advisors took a lead role, working with the Department's Forms Committee under the duration of Mr Mahrous, in drafting the full range of forms, both for public and for internal use, that were needed for the implementation of the sales tax The forms that were of greatest importance, and received the greatest amount of attention, were the registration and return forms In addition to these two forms, however, more than fifty other forms were produced All forms that generated information and data to be entered on a computer were designed to facilitate the capture of the information at data entry Moreover, the criteria were established that any information to be included in the forms had to be both necessary and justifiable

91

The process that was followed highlights the joint effort of the project team and the Department as well as the support of USAID in facilitating the procurement of needed equipment on a timely basis

- The project team advisors drafted the required forms and had them produced in both English and Arabic, using a newly-acquired desktop publishing system that was particularly well suited to producing such forms A project team secretary became well versed in the use of this equipment and was devoted to forms development almost full time for a period of six months
- After the forms were drafted, they were given to the Forms Committee for review and discussion Their comments were then incorporated into revised drafts, prepared by the project team, and transmitted to the Commissioner
- Meetings were then periodically held with the Commissioner to review the forms and to get his comments and decisions at which time the forms were further modified
- At the conclusion of this process, which was continued on an intensive basis over a six-month period, the project team produced "camera-ready" copies of each form reflecting the final decisions that had been made, and the Department then had the required number of each form printed

This process was judged to have been very successful by everyone involved It had the advantage to the project team of very much including them in all aspects of the new GST, because any changes that were made would ultimately need to be reflected in one form or another And it allowed them to bring their international experience to bear on this important foundation of the new tax In more than one instance, this involvement in the development and production process allowed the advisors to influence reconsideration of decisions that had been made For the Department, the process provided the use of computer technology to forms design, provided useful substantive input, and provided high-level support at a time of peak workload And ultimately, the high quality of the forms that were produced helped to demonstrate to the business community that the new Sales Tax Department had a fresh and modern approach to taxation administration

As a supplementary note to the above, as the department plans for extension of the GST to the retail level, it has gone through a systematic process of reviewing each of the public and internal forms to see which ones will require amendment, and in what ways All forms necessary for the extended tax have been prepared, subject to any last minute changes that might be required to accommodate specific requirements under the law at the time it is enacted

4 Registration Assistance and Education

An important element of the introduction of any new tax, such as the GST is a campaign to educate those who will be responsible for collecting and remitting the tax to the Government, so that they understand their responsibilities under the new law Clearly a registrant needs to know what is required of him, and how to fulfill his obligations if he is to comply voluntarily [20]

In most developed countries, income and VAT administrations have invested heavily in comprehensive systems of registrant assistance and education as a means of promoting voluntary compliance Such was not the case in Egypt, however, at the time the GST was being introduced While there was a long-standing recognition of the need to publicize legislative changes when they occurred, it was not common practice to develop materials that explained the changes and informed individuals and businesses of their requirements under the new legislation District and regional offices had "public affairs" officers, but they were generally trained to be reactive, responding to taxpayer complaints and concerns, rather than proactive in developing and providing publicity and educational materials

To the credit of Minister Razaz, and Department leadership, there was recognition of the need for a significant publicity and education effort associated with the GST USAID had foreseen this need as well, and provided within the scope of work support for such an effort Accordingly, the project team worked closely with the Department to develop materials that would accomplish this objective The major document that was published, as noted earlier, was a "Guide to Registration " This document was invaluable at the time of introduction of the tax in providing specific guidance to businesses on whether or not they were required to register and, if they were, how to do so The project team also drafted a detailed "Guide for Registered Persons" on the GST, which was designed to provide a broader and fuller explanation of the new law, and answer a range of specific questions that were anticipated to arise on the administration of the GST Law This comprehensive guide, unfortunately, was the victim of the rapid start up of the law, and was not finalized by the Department for publication until long after the tax was in place, when it was published in the *Economic Encyclopedia of Akhbar El Yoom*

In lieu of completing this published guide department leadership, with the active support and participation by the Minister, conducted a series of briefings with business groups around the country to explain the new law and the requirements of business under it Mr Mahmoud Ali was personally involved in some 74 such meetings While, with hindsight, it would have been preferable to introduce the GST on a more deliberate basis, and to have completed the guide prior to enactment of the law, the successful introduction of the tax was never threatened by the faster approach that was taken

With the experience of the GST implementation in mind, the project team has worked closely with the Department in recent years, as outlined below, to develop a full program of registrant assistance, service and education Such a program would be invaluable when the GST is extended to the retail level, since a large number of smaller wholesalers and retailers will be required to register under the tax (the turnover threshold that will apply is a policy issue that will be decided and announced at the time of implementation) These businesses can generally be expected to have a lower level of familiarity and comfort in applying the tax than manufacturers

[20] A brief note on terminology The conventional wisdom among economists is that sales taxes are passed forward to the consumer, and that it is therefore the consumer that is the ultimate taxpayer The business community, however is charged with charging and remitting those taxes to the Government It is for this reason that this report refers to businesses registered under the GST as registrants rather than "taxpayers "

and importers The project team therefore recommended that the Department appoint a task force to introduce a full assistance program and take specific responsibility for

- Establishing a suitable organizational structure for management of the assistance program at all levels of the Department,
- Introducing a system of functional management of the program,
- Educating managers at all levels of the Department in the concept and practicalities of registrant assistance,
- Setting up a regular program of training for registrant assistance staff, and
- Providing a means to generate guidance materials for issue to the public and assistance staff

To launch the task force, the project team organized a two-week seminar by an expert in the field of taxpayer advice and assistance It also sent to the Department a 41-page document that gave comprehensive coverage of the planning, organization, staffing, duties and performance standards required for a registrant assistance program The Department in early 1996 subsequently created this task force Following the creation of the task force, Dr Michael Kane and members of the project team conducted a successful workshop prior to the launch of the program

During 1997 the project team met frequently with this Registrant Assistance Task Force to examine the then-existing arrangements for assistance to registrants and to see what could be done to improve upon these In conjunction with the project team the Task Force developed a number of easy to read and understandable pamphlets for issue to new and potential registrants In addition the project team made a series of visits to regional and district offices in company with the Registrant's Assistance Task Force These visits were made at the direction of Commissioner Mahmoud Ali with the objective of assessing the preparedness of the Registrant Assistance Units in those offices to effectively support the extension of the tax to the retail level On completion of these visits the project team made a report to the Commissioner outlining recommendations for further changes that would enhance the Department's ability to support a smooth extension of the GST to the retail level

ORGANIZATIONAL REFORMS

As the Department embarked on its path of administering a new type of tax, in an automated rather than a manual environment, it was apparent to Mr Mahmoud Ali that the organizational structure that had been in place for many years within the prior Consumption Tax Department had to change This change had to be managed, because there was so much that was new in terms of the Department's mission, yet there was little that was new in terms of the staff being asked to carry out this mission Commissioner Mahmoud Ali charted a course, and the effort to institutionalize organizational reform began with the goal of becoming a model Department within the Government of Egypt This organization reform has proceeded steadily since 1991 and continues to do so to this day under the day-to-day direction of Mrs Fayza Fouad

The project team's support of the Commissioner's efforts to introduce organizational reforms was extensive and ongoing for virtually the life of the project It is difficult to capture the extent of the work in a report such as this, but an effort is made to at least capture the scope of the effort by touching on all of the major areas where support was provided They are in the order in which they are discussed below (1) Planning, (2) Management by Objectives (3) Structural Reorganization, (4) the Central Department of Information, (5) Allocation of Resources, (6) Work Measurement, (7) Pay, (8) Staff Evaluation, (9) Basic Management and Performance Management, (10) Recruitment Policies, and (11) Career Management Program

1 Planning

At the time the project was initiated, the Sales Tax Department had little experience with long-term or strategic planning One-year plans were produced annually, but they were generally imprecise and vague Target setting, assignment of responsibilities, resource allocation, and identification of milestones were all absent No strategic plans were produced at the higher levels The lack of a well-articulated planning process was quickly recognized by Mr Mahmoud Ali and the project team to be a hindrance to systematic reform and modernization of the new Sales Tax Department This was reflected in the implementation committee structure, which included a planning committee to support both the short-term implementation effort, and to plan for the longer-term development of the Department Also, it was reflected in the sustained effort, at Mr Mahmoud Ali's direction, to provide input and training to the Department on specific aspects of planning For example

- In November 1990, the project team presented a detailed report to the Commissioner on a proposed short-term and long-term plan for the Department
- Throughout 1992 and early 1993 the project team worked closely with the Planning Committee set up by the Commissioner and led Ms Elham Azami To assist the committee in its task, the project team submitted a number of reports to the Department, including "Management by Objectives," "Improving Standards in the Department " and " The Planning Process"
- The project team organized and delivered a one-week Strategic Planning Workshop in the Agouza training facility in April 1994, led by Dr Michael Kane, a short-term project advisor
- In November 1994, a general planning session was held with top management and regional office managers to discuss strategic planning further, again under the general direction of Dr Kane

Building on the formal, informal and day-to-day guidance provided by the project team, a structured effort began with the Department's senior managers to introduce the concept of strategic planning and to develop a five-year strategic plan for the Department As part of this overall effort, a series of senior management workshops was held at which departmental objectives were defined, and where the threats to accomplishing these objectives were identified The project team worked with the department's planning unit to gather data and opinions from managers at regional and district levels These Managers were asked by the Commissioner to prepare a full and actual report covering the challenges facing the Department over the next few years, and internal and external factors likely to impact on the Department's ability to achieve success

The data collected from these surveys were analyzed and presented to senior management at the planning session With project team guidance senior managers translated objectives into strategic initiatives, and assigned responsibility and targets for putting these initiatives into effect The whole of this process was ultimately institutionalized, with the Chief Under-Secretary charged with responsibility of finalizing a departmental five-year strategic plan for implementation in fiscal year 1999/2000

2 Management by Objectives

The series of committees established to introduce and implement the new sales tax represented an exercise in management by objectives This process was a very effective one, given the time constraints that the Department faced Mr Mahmoud Ali viewed this as a useful "pilot" for how work could be better managed within the Department, and sought to improve on the process that had been followed, to train department staff in the approach, and to institutionalize this form of management throughout the Department This form of structured management would serve the Department well on a day-to-day basis, even in ordinary times And it would be especially critical when the Department moved forward with the extension of the GST to the retail level

In support of improving management within the Department, the project team provided in-depth training in the concept of Management by Objectives (MBO) to several cadres of departmental managers and the planning department The training, led by Dr Michael Kane and resident advisor James Setter, was based on the reports previously sent to the Department during 1992 and 1993, and covered identification and evaluation of objectives, production of written objectives, key responsibilities, key results, and result evaluation

The introduction of MBO by the project team was highly successful, particularly in the method of planning and management This was clearly demonstrated by the greater degree of progress that was envisioned subsequently by the committees established to extend the tax to the retail level Each committee identified, evaluated and wrote its own key objectives It then worked with the project team to devise a milestone plan and, later, prepared a time line for implementing the plan The committees reported progress at regular intervals to a steering committee and all the committees' activities were successfully coordinated and directed by Commissioner Mahmoud Ali, who monitored the progress of this important initiative closely

3 Structural Reorganization

The Sales Tax Department needed to undergo dramatic reorganization in order to administer effectively an entirely new system of taxation Under the Consumption Tax, the Department visited registrants on a monthly basis to review production records and to verify tax due In some cases, Department representatives were stationed on site to monitor production and certify returns prior to filing with the department This approach was not suitable for the administration of a modern, invoice-credit-based sales tax Underlying a VAT-type system, reliance is on voluntary compliance and sound record maintenance Close physical control of taxable goods is neither necessary nor desirable Nor is it practicable, since the number of registrants is so much larger

96

Organizational issues were addressed from the outset of the project team's work with the Department, as reflected by the fact that one of the implementation committees was devoted to this subject An early project team review found that the Department was relatively top-heavy at the central level, cumbersome at the regional office level and inadequately staffed and organized at the district level The central office was divided into a large number of separate departments, all of which reported directly to the Commissioner This excessively large span of control presented a number of problems, including the following all authority effectively resided at the top of the department, there was little scope for delegation, and, a sense of responsibility for work to be performed was lacking

The project team therefore recommended that the Department's organization structure be established by reference to the functions of

- Policy execution or technical issue resolution,
- Audit, enforcement, processing and registrant service operations, and
- Financial and administrative support for operations and policy

The basic principle was that the Central Office should be kept as small as possible The main work of the Sales Tax Department is done at district level, under the control and supervision of regional offices The structures in the central and regional offices should therefore be viewed, as necessary "overheads" required to generate policy and to ensure uniform application of the law in discharging that policy

On the basis of project team recommendations, and under the leadership of Mr Mahmoud Ali, the Department developed a plan for formal reorganization and reallocation of resources, which it submitted, to the Central Agency of Administration and Organization While the organizational plan that emerged did not follow the recommendations as closely as might have been desired by the project team, it was a significant step forward and gave the Department the authority to realign departmental administration along functional lines, as recommended

Early progress was made in this respect by the creation of a Central Department of Executive Affairs The project team was successful in arguing that the new department should have overall management responsibilities for the operations of audit, enforcement, processing, and registrant assistance The department would exercise its management responsibilities down to district offices via the regional office managers This constituted recognition of the principle of management by function

The project team also worked closely with the Department to ensure that its organizational structure was suitable for accommodating its ambitious automation program The organizational structure was first established with a Central ADP Processing Center and Regional Centers Technical staff had to be recruited and trained for these units which in turn had to be established within the organizational structure This process moved a further step beginning in 1993 when the District offices began being computerized, and the process of recruiting, training and reconfiguring the organization charts had to be revisited The automation of district offices, it should be noted, removed the role of data input units in the regions, raising the issue of the future role of the regional data processing units The project team prepared a proposal for the restructuring of the Regional ADP units to provide services and support functions to their related district offices, which remains as an open issue The computerization initiative is discussed in much more detail in the following chapter

4 Central Department of Information

This department was set up very early in the life of the Sales Tax Department to be the management center for a wide range of functions, many of which were essentially new to the Department, that had at least some link to the collection and dissemination of information Some of the units in the Central Department, such as the creation of the General Department of ADP and the Economic Research Department (ERD), were in response to project-led initiatives The project was probably a catalyst for the creation of a Translation Department, which supported the working relationship between the Department and the project The project team, led by Mr Helmi and Mr Whitehouse, interviewed and tested the staff and reported to Mr Mahmoud Ali the names of those who passed to work as translators The others included the Library, the Statistics Department, the Publications Department and the Microfilm Unit

The quick creation of this Department provided a needed home for the new project-related units, and thereby served a useful short-term purpose This structure has not, however, "met the test of time" for two primary reasons first, the span of control for any single manager was too great, and second and related to the prior point, the Central Department s "customers" varied significantly among the different units of this Department Accordingly, Commissioner Mahmoud Ali requested the project team to review the role and structure of the Central Department of Information Mr Richard Clayton, project team resident advisor, conducted a detailed review of the Department and in March 1994 produced a 50-page document that was responsive to Mr Mahmoud Ali's request Mr Clayton's recommendations included breaking the department up into more manageable units, the dispersal being according to functional lines and "customers" requirements In broad terms, division would depend on whether a unit gathered, stored, distributed or used information, or performed some combination of these functions The department has adopted most proposals for management change, and the substantial restructuring which the project team envisaged is currently being phased in Mr Mahmoud Ali also commissioned a second report in the form of a problem diagnosis of the Economic Research Department (ERD), a unit of the Central Department of Information Mr Howard Nester, also of the project team, conducted this diagnostic during January and February 1994 (Issues associated with the ERD are discussed in Chapter IV)

5 Allocation of Staff Resources

At the Commissioner's request, the project team worked closely with department staff to assess the allocation of department staff after enactment of the GST The joint project-Department analysis suggested, as noted earlier, that the allocation of staff among central, regional and district offices was out of line with the requirements of a modern sales tax administration system The district office is the point of main contact between most registrants and the Department It is also the scene of most departmental activity (registrant-generated transactions, enforcement, audit, etc) However, at the time the study was made, only about 45 percent of the department's staff were assigned to the 45 district offices, with 35 percent located in the nine regional offices and about 20 percent in the central office Moreover, the allocation of staff among the district

98

offices was not proportionate to their respective workloads, based on the number of registered persons

The recommendations that flowed from the analysis, as would be expected, were to move substantially more of the staff to the district offices, to a very large extent through paring back the role of the regional offices, but also through paring back the size of the central office as well The re-deployment of existing staff, in response to this analysis, was by all appearances relatively limited initially, probably reflecting a range of cultural issues and concerns associated with such change As new staff were hired, however, greater numbers of them have been recruited for work in the district offices or in those districts with the greatest need

6 Work Measurement

At the time when the sales tax was introduced, the Department had no viable system for measuring the amount of work its individual staff members performed or for that matter how much each work unit should be expected to perform The Commissioner noted that to maintain efficiency and ensure the effective utilization of staff under the GST, a system of management control, including work measurement and work reporting, would need to be developed

At the Commissioner's request, the project team worked with designated staff from the Department to develop a proposed work measurement system and a way in which such a system could be introduced within the Department The system could assist management in

- Establishing accurate work loads and fixing a fair and adequate staffing establishment for each work unit, within each office, throughout the department,
- Planning the flow of work through the district office and identifying any hold ups in the flow,
- Maintaining adequate control of the quality of the work at all stages, and
- Calculating incentive pay/penalties equitably throughout the Department

The system could be established following a method study of the procedures involved, preparation of procedure job sheets, and timing tests for each procedure Underlying the system would be a series of personal, work unit and office work reports

The project team worked closely over several years with a specially appointed "Work Measurement" committee, in order to introduce the system The Work Measurement Committee, with guidance from the project team, produced about 70 job procedure sheets for use in the areas of registration, collection/enforcement and returns processing These sheets described the tasks to be carried out by the incumbent and formed the basis for timing measurement tests The timing tests themselves required the initial selection of four sample district offices and the time testing of 46 different jobs, sampling was then extended to a further six offices Based on the results of these exercises, the Department was able to calculate standard rates of performance for different tasks and processes

When the system is implemented, in accordance with the Commissioner's long term plan, the next step will be to link it with a personal work reporting system Both these management tools lend themselves to computerization and should be considered at a later date

7 Basic Management and Performance Management

Although it is not unique to the Sales Tax Department, the general assessment of department managers is that they lack training in management theory and techniques and have little understanding of personnel motivation and direction, perceive their roles as involving no more than inspection or re-inspection of work completed by juniors, display little initiative, assume little responsibility or accountability for performance and quality of work, and are reluctant to make decisions Such characteristics frustrate senior management initiatives for reform and modernization and ultimately impose an excessive burden on the very top official(s) in the Department

In response, to a request by Commissioner Mahmoud Ali, the project team took steps to introduce and institutionalize within the Department the goal of effective employee performance management, and focused on maximizing the skills and experience of employees The project team gave training in the subject, and worked with departmental staff to reinforce the training subject matter and to develop departmental courses in performance management Issues included in the program were mutual goal setting, reviews, performance coaching, performance appraisal interviews, and key factors in personal action planning

The project team made particular efforts to institutionalize basic management techniques, both by delivering training courses in these subjects and by developing training materials that were made available to the department This effort proved highly successful and the Department was quick to develop a basic management-training course for all of its managers The Department has developed a well-qualified cadre of instructors that now offer this Basic Management Program, not only at its Training Center in Cairo but in more remote locations as well The Commissioner is confident that the level of competence of the Department's managers will show a marked improvement as a result of the initiative As the Department introduces improved performance reviews, this improvement should be increasingly measurable and recognized

8 Staff Evaluation

The Commissioner recognized the need to develop some suitable system for ensuring that middle managers emerged from the ranks to meet future managerial requirements For this reason, and to assure that the allocation of base and incentive compensation was fair, the Commissioner expressed interest in developing a system for individual personnel evaluation The development of a work measurement program, outlined above, clearly could serve as a valuable input to the evaluation process, but there was agreement that the performance of individual staff members should not be restricted to this The amount of work performed by an individual was only one factor to be taken into account when evaluating the true worth of an individual to the Department Other factors that needed to be taken into account, including planning and organization of work, technical knowledge, versatility, judgment, quality of work, productivity effort, communication, dependability and initiative

To assist the Department in developing a comprehensive balanced system of performance evaluation, the project team produced a 50 page "Guide for Managers to Performance Appraisal" and also a performance appraisal report form In addition members of the project team and project team Consultants provided a considerable amount of training and orientation on suggested alternatives to all levels of management Mr Clayton and Dr Kane, for example, conducted an intensive workshop in Maadi for a week to train staff on how to use the forms and to conduct the process

Over a period of several weeks at the end of 1996 and the beginning of 1997, the project team met with senior managers and subsequently with general department and district managers to outline a pilot evaluation form and to conduct workshops on how it should be used The project team then worked with the Planning Department to set a schedule for pilot testing the form in the district offices, collating and analyzing the results and making recommendations for the finalization of the form A six-month pilot exercise was completed, the results analyzed, and certain problem areas identified and rectified The Planning Department is now preparing to conduct an exercise covering the whole of the Sales Tax Department

9 Recruitment Policies

In response to departmental requests in 1993, the project team worked with the Department of Organization to provide input to an effort to improve the Department's overall recruitment process, with the specific goal of improving the quality of future middle managers The recruitment and posting of staff was the responsibility of the Central Department of Financial and Administrative Affairs, in coordination with the Department of Organization The Central Department of Financial and Administrative Affairs placed advertisements in the press The advertisement included the age of the graduates required, the type of degree and degree class sought, the general location of the office in which the recruit was to serve, and the grade to which the applicant was being recruited The advertisement did not, however, outline specifically the position available, an applicant was not informed, for example, whether he or she would be an auditor, legal officer, a clerical officer or computer specialist

The project team concluded that more effort should be made to match recruits to the job most suitable for them, and that a greater degree of selectivity should be introduced into the recruitment process The project team recommended that the Department review its recruitment selection procedures with a view to

- Being more specific and informative in the job advertisements and defining recruitment needs by reference to jobs or functions and not grades,
- Providing sufficient time in the selection process to make an accurate assessment of the candidates strengths, weaknesses and potential, and to focus on the core qualities required in the candidate, and
- Improve the training and professionalism of recruitment staff

The project team also raised the issues of identifying potential at an early stage and providing a career path to develop that potential fully

101

10 Career Management Program

The project team shared concerns, expressed many times by the Sales Tax Commissioner, regarding the quality of management within the Department, the difficulty of identifying the middle and senior managers of the future, and the difficulty of conducting effective succession planning The Department had no program in place by which staff with good potential might be identified and exposed to suitable developmental experiences Indeed, by law, promotion was primarily by seniority up to the level of general manager (the head of a general department) and little or no consideration was given to testing a candidate's suitability for promotion to the next higher grade

In this environment, it was clear that any program to manage and foster the careers of prospective managers would be a completely new departure and should not be too ambitious The project team therefore proposed a limited program that the Department could expand, over time, as it became more familiar with the concepts and practices involved A small group of officials was appointed from the training, organization and personnel departments, and this group was to take general management responsibility for the program Working with the group, in 1993-94, the project team advisor, Mr Phil Russo, identified the first level of supervisors as a suitable level at which to introduce a career management program The project team gave the nominated officials a comprehensive overview of the program theory and application and was satisfied that understanding of what was involved had been institutionalized within the Department It then produced a management handbook, containing all the basics for the program, including sample procedures, forms, lists and descriptions of competencies, for use by the Department Program milestones were agreed with the Department, and implementation was initiated

IMPROVEMENT OF OPERATING PROCEDURES

1 Processing Returns and Payments

The introduction of automation required increased discipline in the entering of data relating to filing and payment of tax That this was not immediately apparent to the Department staff, this was reflected in the number of errors made in entering data to the GSTACS and thus in the computerized ledger accounts The Department, led by Mr Talaat Tahir, and the project team invested a great deal of effort in a series of "ledger cleansing" exercises designed to eradicate existing errors The goal was not only to identify sources of error, but also to cleanse the ledgers of amounts in suspense, rejected returns, and other data entry errors The project team also urged that the exercise be followed by additional training and refresher courses on those aspects of the system which were contributing to errors so that staff would be educated in the new processing requirements and would avoid repetition of such errors in the future This training was given and was effective in helping department staff to appreciate the importance of timeliness and accuracy of sales tax data in the computer system

The initial ledger cleansing exercises did prove to be successful in identifying and correcting many errors The Department was successful in improving the performance of staff in recording data, and while some errors did reappear over time, necessitating further ledger cleansing, general improvement was realized Having transferred to the department the skills necessary to carry out the cleansing exercises the project team was less involved in the later exercises However they did advise that district office staff, who were responsible for the errors, should be closely involved The aim of this was that the staff would see what errors they made, understand the consequences and avoid repetition in future

In order to upgrade the quality of returns and payments processing the project team worked with departmental staff to produce an employee instruction manual on processing The manual was then used as a basis for the design and development of a processing training course to be given to all processing staff

In addition, in order to encourage office managers to exercise the necessary management checks and controls on the quality of preparation and input of data, the project team gave a series of seminars to regional and district office managers The seminars introduced the managers to the objectives of the computerization program, explained the management information processes involved, and stressed the truth of the maxim "garbage in - garbage out" in relation to computer data As a result a generally greater appreciation of the computerization has taken hold

In addition to supporting the processing of returns, the project team recommended a significant change – shifting from monthly to bi-monthly filing – to ease the administrative burden on the Department The taxable period for sales tax is one calendar month and a return is required to be filed by each registrant within two months of the end of the taxable period [21] The project team recommended that registrants be allowed to file for a two-month period (on a staggered basis), thereby halving the number of returns that the department had to process each month After much discussion and serious analysis the GoE elected, at least to date, not to adopt this recommendation

2 Enforcement of Filing and Collections

At the introduction of the General Sales Tax, the Sales Tax Department instituted and maintained a policy of making advisory visits to all new registrants During the course of these visits, registrants were informed of the general structure of the tax, the legal obligations that it placed on registrants to file returns and account regularly to the Department for the tax and the requirements that registrants maintain specific books and records However the Department has continued to face problems of non-filing, non-payment and late payment Against project team advice, the Department attempted to enforce compliance by the strategy of refusing to accept returns unless they were accompanied by full payment of tax due This strategy did not prove successful and non-filing of returns averaged about 25 percent of registrants per month The project team's preferred strategy was that the Department

- Assign special computer codes to registrants with infrequent or seasonal activities,
- Issue timely reminders to non filers late/non payers,
- Issue timely default assessments,
- Prepare a program for auditing registrants who were persistently in default,

[21] The exception to this is in the case of certain specified commodities (Table 1 Commodities) where the return is due within 30 days after the end of the taxable period

- Institute legal proceedings to enforce payment of tax, and
- Use the penalty provisions of the sales tax law in cases of non-compliance

The project team believed that failure to exact penalties for non-compliance, on a regular and consistent basis, was particularly detrimental to attempts to promote voluntary compliance, the non-compliant were not disadvantaged vis a vis the compliant in any way Accordingly, the project team made very detailed recommendations for the use of a short period of amnesty to be followed by consistent application of penalties for persistent offenders The Department decided against this recommendation and instead imposed a one-off penalty of LE100 for late filing

The project team produced a paper proposing the development of a computerized Debt Management Sub-System This proposal was accepted by the Sales Tax Commissioner Discussions were held with the appropriate departments of the Sales Tax Department and action was taken to develop and implement this subsystem Experts from the Sales Tax Department assisted by the project team worked on the design phase of the Debt Management System When this phase was completed the design specifications were produced Department Programmers developed the sub-system At project close, the system was being pilot tested in a district office Following a period of successful pilot testing the Debt Management System will be introduced in all district offices

3 Refunds to Exporters

At the introduction of the General Sales Tax in 1991, refunds of sales tax credits arising as a result of the exportation of goods, were controlled by the Customs Department By December 1991, Customs had made some 4,000 refunds totaling LE 12 million The procedures agreed upon by the two departments required Customs to advise Sales Tax of the following details of refund, sorted by the district office where the registrants' records were held

- The registration number and the name of the recipient of the refund,
- The date and value of the refund, and
- The taxable period(s) in respect of which the refund was due

This information was needed by Sales Tax Department to record the refunds to the respective registered person's GSTACS ledger account Because Customs identified refunds according to the month in which the input tax was paid, and not the taxable period in which the credit arose, it was not possible for Sales Tax to post the refund debit to the taxable period in which the credit was recorded The result was that a credit balance remained in some periods, and other periods were put into debit when the refund was posted when they should have been cleared Despite many attempts, there has been only modest success in correctly recording the refunds made by the Customs Department

The project team conducted a detailed review of the refund procedures and identified the shortcomings in the procedures In a report to the Sales Tax Commissioner the project team recommended that the responsibility for making these refunds be shifted to the Sales Tax Department In October 1992 an administrative decree was issued transferring responsibility for making refunds of input tax credit resulting from exportation of goods from Customs

104

Department to the Sales Tax Department The Sales Tax Department together with input by the project team then developed and issued instructions to district offices that streamlined the refund procedures

4 Audit

Since the introduction of the tax, both Mr Mahmoud Ali and the project team saw an effective audit system as the cornerstone of the sales tax compliance strategy The project team worked closely with department staff in drafting and helping produce an employee instruction manual on audits and visits to registrants that has been published and disseminated in the Department The manual is used quite extensively and improved operations are apparent

However, notwithstanding the new manual, a subsequent project team review of audit activity in the Department showed that the following problems persisted although less widespread than previously noted

- Lack of central management and control of the audit function,
- Lack of clear audit planning and targeting,
- Lack of clear audit procedures,
- Inconsistency of approach to auditing on the part of district offices, and
- Inadequate audit training

The problems were reported to the Commissioner, together with the project team's recommendations for upgrading the audit function The Commissioner acted quickly to appoint a special task force that he commissioned to work with the project team in implementing a wide-ranging series of reforms This task force was led by Mohamed Mahrous, Deputy Commissioner, and also included Mr Mahmoud Gabr (General Manager), Mr Nabil Abdin (audit Manager), Mr Hamdi El Isawi (Commissioner's Office), Mr Samir Anwar (district office Manager) and Mr Salah Ayati (region's Manager) As a result of the cooperation between the task force and the project team, the following results were achieved

- A centrally-based department was established to manage the audit function at regional and district level
- A system of work reporting and reporting the results of audits was introduced
- A Department-wide planning process was implemented for setting an annual audit plan at national, regional and district level
- An automated system of selection of cases for audit was developed
- A database for results and work reporting was developed
- Auditors' duties were redefined so as to focus audit resources on the audit process, rather than dissipating them on non-audit related tasks
- A system for evaluating auditor's performance was developed and introduced

105

In addition the project team worked closely with departmental staff on developing and designing a comprehensive training course for auditors For the purposes of focusing on specific or specialized aspects of auditing and audit techniques, the project team used short-term audit training consultants Mr Clayton, who took the lead role in this effort conducted several workshops in cooperation with the task force to introduce and explain the new effort to the audit staff in the Department A number of these workshops were held outside Cairo (e g , Alexandria and Beni Swaif)

In the early days of the Department, the Anti-Evasion Department, in the Central Department, did not work closely with the district offices in identifying, investigating and prosecuting cases of evasion No means for referral of cases from districts to the Department existed, and the very concept of what the department regarded as evasion, though clear in statute, was blurred in practice Understatements of tax due that, by law, were large enough to constitute evasion were frequently not penalized when discovered by district office auditors The project team therefore recommended that a clear departmental practice be enunciated regarding evasion, that a system for regular referral of evasion cases to the Anti-Evasion Department be introduced, and that the Anti-Evasion Department itself be reorganized to cope with an increased workload Many of these recommendations are being implemented

The Department with guidance from the project team is currently developing a computerized sub-system that will

- Automatically select cases for audit,
- Track progress of audits,
- Record the outcome and result of a audit, and
- Produce Management Information Reports

5 Information Sharing between Departments

As a result of project team suggestions and encouragement, and the dedicated efforts of Commissioner Mahmoud Ali, all three Commissioners have been meeting on a formal and regularly scheduled basis to ensure improved synergy among the revenue departments More junior officials of the three departments have been meeting formally once a week on specific problems and to effect better coordination generally

The project team installed a computer system in each central office (Tax, Sales Tax and Customs) and created a wide area network for exchange of information There were some delays while the Department arranged with ARENTO for installation of the dedicated lines but this has been accomplished

Some problems still exist, in that legally the Customs and Sales Tax Departments can pass data to the Tax Department but the Tax Department cannot divulge income tax information to the other departments However, Sales Tax and Customs have adopted uniform activity codes and an inter-departmental committee continues to meet regularly to review information exchange In addition Ministerial Decree 764/1997 requires sales tax registrants to submit a summary of their sales tax returns along with their income tax return when filing with the Tax Department

106

In order to avoid overloading either department with an uncontrolled flow of information, the project team advised that each department set up a central unit and monitor to manage the transfer of information They also recommended that the information to be exchanged be restricted, in the first instance, to that concerning serious understatements of tax due The system could then be expanded as the departments became more experienced in its mechanisms and better qualified to judge between valuable information and information that was in reality peripheral to promoting tax compliance

6 Coordination with Customs

It was recognized from the beginning that the Customs Department would collect approximately half of the Sales Tax revenues arising from a tax at the manufacturing and import stage Coordination with Customs was accordingly judged to be an important element of the implementation process and a separate committee was formed to ensure that this coordination occurred This committee, led by Mr Naguib Farag, included a designated official from the Customs Department, who served as the liaison between the two departments and coordinated their efforts The coordination involved several critical elements

- First, the Customs Department had to develop a form for collecting the new sales tax on behalf of the Sales Tax Department A modification of an existing Customs form proved to be feasible and avoided the use of a separate form
- Second, to facilitate administration, each department needed to know the importer/registrant identification numbers used by the other There was recognition that a long-term goal should be to have a single identification number for both departments, which ultimately did occur
- Third, a formalized system needed to be established for sharing information for purposes of enforcement and audit Such a system was created, as discussed previously

7 Coordination with the Tax Department

In the same way that coordination with Customs was seen as critical to the successful administration of the sales tax, so too was coordination with the Tax Department The advantages were

- The Tax Department had available a far larger database on business activity than did the Sales Tax Department, with almost every registrant or potential registrant being automatically a Tax Department taxpayer already The income tax laws gave the Tax Department far greater powers for obtaining information from third parties on businesses commencing activity for the first time Income tax audits were wider in scope than the normal sales tax audit
- It was also clearly a more efficient use of resources if departments shared information on taxpayers rather than having to duplicate the effort of obtaining it
- The prerequisite for a manageable system of information exchange was a unique identification number common to businesses or businessmen in their role both as importers,

109

registrants and taxpayers Details of this unique number (TAN) and its development is set out earlier in this chapter

MODEL DISTRICT OFFICE

1 Introduction

The Model district office Initiative was designed to provide the new Department with a flagship office that could serve both as a testing ground for the computerization program and for the introduction of new administrative procedures Once new programs and procedures had been successfully tested, they would be introduced to other district offices, while the model district office itself would stand as an example for all districts to emulate

2 Office Organization and Environment

The Department's initial enthusiasm for this concept led it to assign Downtown district office as the model The choice was made on the grounds that this was the office with the largest number of registrants and that success here would demonstrate most clearly the value of new programs However, Downtown district was seriously understaffed for the volume of work it had to carry out, with the result that its workload was already significantly in arrears It was located in an unfinished building and it was projected that the district would change office location at some future date These circumstances made the district a less than ideal candidate for the balanced introduction and refinement of new procedures, and the constraints in terms of physical environment would be a severe obstacle to computerization It was therefore decided that an alternative district would be chosen as the model

The process of selecting a suitable alternative took some time as the department's future plans for various candidate districts were unclear and because a number of new district offices were under construction Eventually, Helwan district office was chosen, for two main reasons

- The district had some of the largest registrants, but not an overwhelmingly heavy workload, and
- It was about to relocate to its new offices, which would allow project team involvement in planning office layout and work flows, and provide suitable environment for computerization

The project team was closely involved in the establishment of the new office Its recommendations on staffing, based on the staff/registrant ratio, were accepted and it was instrumental in creating an adequately staffed registrant assistance unit The project team advised in detail on the layout of the office the aims being

- To secure the most efficient flow of work, commencing with receipt of returns and payments, then processing, data input and finally audit
- To provide easy access for the public to those units, for example, registrant assistance and inquiry desk, which dealt with the public,

- To configure the computer systems correctly for the ADP unit and automated cash room and
- To provide more secure areas for units, for example audit, using confidential information and for the cash room

The Helwan model district office was a brilliant success and serves today as a "test bed" for new initiatives and a model for emulation by all other offices

3 Procedural Reforms

The project team had been advising the Sales Tax Department, from its inception, in the details of the procedures that it should adopt, and was thus confident that if the model district correctly applied such procedures it would be successful It therefore took steps to have processing staff in the office trained in departmental procedures and attempted to promote the use of the Department's employee guide to processing procedures

To assist in data preparation and entry, the project team devised a review form for use in following up uncleared ledger entries and gave advice on enforcement and collection management In the area of audit, the project team, working with a departmental task force, used the model office extensively as a test bed for new forms for reporting work completed and audit results

4 Computerization

The Model district office was computerized as soon as the new accommodation was completed and was one of the first offices to receive the computerized Cashier Subsystem of the GSTACS

In order to facilitate transfer of the innovations made in the model office, the Department appointed a liaison officer who was tasked with developing a timetable and plan for implementing reforms in all other district offices The project team worked with the liaison officer in developing a schedule for extending the model office concept

The project team also arranged for special management and data processing training for the District Manager and his assistant in order to prepare these key officials for this important responsibility

FUTURE WORK

As outlined in the prior sections, under Commissioner Mahmoud Ali's strong leadership the Sales Tax Department has made great strides in the 1990's in advancing towards being a modern and effective department As a result of the internal reforms--encompassing organization, procedures, training, computerization, and more, as outlined above--the Department is very well prepared to move to the next stage of sales taxation in Egypt, namely the extension of the tax to the wholesale and retail level When the pending legislation to extend the tax (referenced in Chapter III) is enacted, the Department will be ready to implement it

When the sales tax is extended, the Department would benefit from continued technical assistance as it addresses the many new issues that it will face day to day Some of the areas where continued technical assistance would benefit the Department in many cases targeted specifically to the extension of the tax to the wholesale and retail level are identified below

1 Improving the Conduct of Audits

The Department will be comparatively inexperienced in the techniques of conducting sales tax audits of registrants whose commercial records bear little resemblance to those of a manufacturer Further technical assistance could be provided to assist in reinforcing the skills of auditors so that they can conduct audits on wholesalers and retailers with increased confidence

2 Audit Selection

The management of an audit program and the analysis of results of audit visits will continue to develop as the Department establishes procedures and collates information The concept of selection of cases for audit based on presumed need for attention and potential revenue yield is an important one when the available audit resources are limited Further technical assistance could productively be provided to assist with the organization of overall audit resource management and the refinement of selection techniques

3 Improving Collection (Debt Management)

The success of any organization devoted to collecting tax is ultimately judged by the amounts actually collected and the cost Accurate manual records or a computer subsystem is essential to the effective control of the increased number of delinquent registrants Deployment of the debt management sub-system, referred to above, will enable the Department to identify, prioritize and take appropriate action on tax arrears Since this system is being introduced only as a pilot at the time the project is closing, the Department would benefit from assistance as the system is implemented Department wide

4 Retail Schemes

The Department has designed three special schemes to be used by registered retailers The schemes are intended to alleviate the administrative burdens faced by retailers when accounting for tax The evidence from elsewhere is that, with experience such schemes can usefully be fine-tuned and made easier to operate and also that their use can be extended to new classes of retailers Further technical assistance would enable the Department to actively monitor and refine the use of such schemes once the tax is extended to the retail level Training courses would need to be designed to address the new needs of Sales Tax auditors, since this is an area that has been out side their current scope of work

5 Registrant Assistance

Similarly, the Department has prepared basic registrant advice materials for use under the extended tax However, most modern tax administrations issue a great many advisory publications and these are constantly revised to include the most recent issues of interest to registrants and the public generally Such material includes the detail of new decrees, recent court decisions and new departmental practices Having taken the first steps to establish a

110

registrant assistance function the Department should build on this foundation and develop a full series of advisory publications and make available a catalogue of them

The Department could also usefully produce a publication, in different languages, describing how the sales tax works and highlighting the efforts made by the GOE to ensure that it is convenient and simple for businesses to operate This publication could then be distributed abroad via embassies and other bodies (e g , American Chamber of Commerce) as a guide to potential foreign investors

In addition, the Department needs to continue development of its on-line inquiry system in order to improve the speed and convenience with which local offices respond to registrant inquiries

6 Registration of Services

If the GoE is to be successful in its attempts to promote export led growth, it will eventually find it necessary to extend the sales tax to most services There are two reasons for this The first is that if services are not included, then considerable distortions will arise in the economy The second is that services are an input to export manufacturers However, if services are not registered, then, although they must pay sales tax on commodities that they purchase, these registrants are unable to claim credit for the tax on those inputs They therefore pass the tax on, in the form of higher prices for the services they provide, to exporters Because the tax is passed on in the form of higher prices and not as output tax, no refund is available to exporters and their own sales price thus becomes higher and less competitive in the international market The Department needs to advise the Ministries of Finance, Trade and Economy and International Cooperation on this issue with a view to including most services within the tax

7 Use of Telecommunications

Use of telecommunications networks is growing rapidly in Egypt and the Department is itself in the process of networking its district offices to its central processing site The Department should now

- Publicize the "web-site" that it is developing that can be accessed by registrants, accountants and other technical advisors, and that will carry the full range of advisory material, and
- Use the departmental network not only for carrying registrant data, but also for carrying full copies of the GST Law, Regulations, and Decrees and the full range of departmental instructions and opinions on how the law should be applied This will improve uniformity in application of the tax and increase the transparency and certainty necessary to assist registered businesses with their tax planning

8 Exchange of Information

The Department, in conjunction with the Tax Department and Customs Department needs to continue to expand the system of information sharing discussed earlier In particular Ministerial Decree 764/1997 provides that when making an income tax return, income taxpayers that are also sales tax registrants must report details of their sales tax transactions The first returns containing this information will be filed in 1998 The Department needs to plan for the use it will make of such information from 1998 onwards It should also carefully monitor and analyze its experience of using the information during 1998/99 in order to maximize its value in later years It should be noted that sales tax auditors are not generally provided with full accounts (only a completed return) when conducting audits while income tax auditors are not familiar with the sales tax law and sales tax returns To maximize the value of information provided under decree 764/97 a training course, to familiarize auditors with the work of their colleagues in the other department, could usefully be developed and given to joint classes of income tax and sales tax auditors

9 System Upgrading

The Department has recently been "benchmarking" the GSTACS in order to measure how fast the system copes with the current volume of transactions and how fast it will handle a larger volume Given the continuing advances in computer technology, the expected large increase in the number of registrants (and therefore transactions) and the age of some systems now in use the Department will need to move forward with its plans to upgrade of current systems over the next two years

10 Organization

The Sales Tax Department is successfully reorganizing in order to focus on its key functions of audit, enforcement and collection, registrant assistance, and returns and payments processing Reorganization within the key functions themselves is already advanced The next stage will be to reorganize the remainder of the Central Department and regional offices in order to give more effective technical and logistical support to the key functions

At the same time as developing an appropriate organizational structure, the Department has also identified the need to evaluate staff performance A basic system for personnel performance evaluation has been developed and pilot tested in district offices This system needs further refinement before formal implementation in district offices and will also need to be extended to central office staff in due course The proposed extended exercise should be mounted as soon as possible

11 Use of the Banking System

With privatization, the Egyptian banking sector is modernizing and becoming more efficient Banks are becoming increasingly automated and this trend will accelerate over the next few years Meanwhile, the number of registrants will continue to grow rapidly following final extension of the tax To increase the efficiency of collection and to provide a more convenient service to registrants, the Department is developing a plan for utilizing the banks and their new technology in the processing of sales tax payments The Department would benefit from further technical assistance in this area

12 Training

The Department's new training institute is expected to open in late 1998 and state of the art training equipment will be installed In order to make the most efficient use of this equipment training personnel will themselves need to be trained in its use and to gain hands-on experience of using the equipment The Department will need to obtain specialized technical assistance in this area

The Department has also reorganized its Training Department and the new organization will become fully active when the new institute opens Ambitious targets for expanding the course curricula and delivering training are being set for the new Department Its work will therefore need to be closely monitored and guided, particularly in the first eighteen months of its operations A full discussion of the project's efforts in training is provided in Chapter VII of this report

TAX DEPARTMENT

BACKGROUND

The Tax Department is by far the largest revenue producing department in Egypt, with an estimated 35,000 employees, and with responsibility for administering all income taxes, stamp duties, the inheritance tax (until it was abolished in 1996), the social solidarity tax, and the development duty Administration of these taxes, as noted previously, has historically been severely hampered by a combination of a poor policy framework, a weak penalty structure, and a lack of automation These problems were compounded by an ineffective organization structure within the Department, only very limited investment in its employees through training and administrative procedures and policies that were burdensome to employees and taxpayers alike

Introducing reforms in a department of this size, and with a range of problems so far reaching as those described above, can only be considered a long-term effort Such an effort can only be fully successful when progress is made in all of the areas of policy, organizational, and procedural reform, supported by modernization through much more extensive use of computer technology and by improved training The challenge of the project team, as it began its work in 1989, was to try to move the reform and modernization initiative forward on all fronts at the same time, but with priority given to policy reform first

The discussion that follows in this chapter is organized into five sections, much like the comparable presentation on the Sales Tax Department (i) major support associated with implementation of the Global Income Tax, (ii) organizational reforms, (iii) improvement of operating procedures, (iv) the Model district office initiative, and (v) future work to be done

SUPPORT FOR IMPLEMENTATION OF THE GLOBAL INCOME TAX

There was a sharp contrast between the role that the project team played in supporting implementation of the Global Income Tax in 1993 as contrasted to the implementation of the General Sales Tax in 1991 In the latter, as described earlier in this chapter, the project team was an integral part of the implementation team, involved in the design and development of forms, returns, procedures, educational materials, and more

115

In the case of the Global Income Tax, the project team served as a key part of the policymaking team, and worked closely with the Minister in assessing the broad range of policy recommendations that the project team had developed and in providing quantitative analysis of different tax options This policy role, and the recommendations made, is discussed at some length in Chapter III

On the administrative side, however, the project team served as an advisor to the Commissioner, and prepared materials and supporting documents as requested The assistance provided was in every area of tax administration including organization, procedures, forms, taxpayer assistance, audits, and tax collection This technical support is discussed in the following sections of the report

ORGANIZATIONAL AND MANAGERIAL REFORM

The Tax Department's organizational structure included ten major operational sectors under the Commissioner's office, with a structure of 36 regions and more than 200 district offices Tax compliance functions were organized in a confusing way, with both geographically-based and industry-based district offices, though the latter began to be phased out beginning in 1991 Corporate taxpayers were managed through two offices, one in Cairo and the other in Alexandria, with the exception of the many corporations enjoying tax holidays, which were dealt with through the Investment Office located in Cairo [22]

The operational structure was designed for labor-intensive administration of the existing schedular tax system There were reasons to reform this organizational structure, even if global income tax reform did not occur, but the expectation that this reform would occur made planning for organizational reform a paramount issue The degree of organizational reform required, of course, would ultimately depend to a significant degree on the breadth and scope of the reforms introduced, as well as on the pace at which automation occurred within the Department Under the reforms outlined in the project team's Redbook proposals, for example, the organizational reforms that would have been required to accommodate elimination of the overlapping general income tax, the replacement of Discounts and Additions with an estimated payments system, the elimination of all stamp and development duties, and the introduction of a withholding tax on interest income, to name but a few, would have been dramatic

As noted before, the policy reforms that have been introduced to date have fallen short of those proposed, but the reform process does continue to move forward, and there is reason to believe that over time the reforms will match the scope of those proposed by the project team Notwithstanding this shortfall, the Global Income Tax, as introduced, had dramatic organizational and workload implications for the Department because

- It doubled the family burden exemption amount (which was later further increased) reducing by millions the number of individuals liable to tax,

[22] The handling of corporate taxpayers became slightly more dispersed over time but only for the Industrial Cities such as 10th of Ramadan and 6th of October where the handling of corporate taxpayers resident therein was transferred to those respective districts

- It eliminated the general income tax and also simplified the computation of self-employed taxpayers taxable income, so that taxes on wages became taxed fully through withholding, thereby eliminating the processing of returns of taxpayers who had only wage income above the tax-free threshold,
- It reduced the incentive for tax evasion by reducing the higher marginal tax rates, and
- It provided for only a single tax structure applicable to both unincorporated businesses and professionals, and thereby prevents taxpayers with both professional and business interests from incorrectly receiving a double family benefit allowance

With the above as background the project team made a number of recommendations, and provided support to organizational reform to the Tax Department in a number of areas, as outlined below

1 Centralization of ADP and Training

Many tax departments around the world are organized functionally rather than by type of tax Because a case could be made for combining the Tax Department and the Sales Tax Department into a single department, the project team recommended that as a first step in this direction, the training and computerization functions of these two departments be centralized within the Ministry of Finance It was argued that centralization would have resulted in significant economies of scale of very scarce resources, and therefore would have benefited the Ministry as a whole and the individual departments These recommendations were not adopted, although co-operation between departments in both areas has increased significantly in recent years

2 Seminars and Reports on Department-wide Organizational Reform

Prior to introduction of the Global Income Tax, the Commissioner appointed a small committee, led by Mr Mustafa Abd el Maksoud and Mr Nabil El Maadawi, to work with the project team in identifying the probable impact of the new law on work of the Department and on indicating appropriate organizational changes This was done After the new law was passed, the Department asked for further assistance to plan for organizational change generally, the project team arranged for a series of workshops to be provided to a membership drawn from the original committee and the Central Department of Organization The workshops were presented by a short-term consultant specializing in the organization of tax administrations The workshops were directed to

- Examining the reasons for and dynamics of organizational change,
- Identifying specific organizational problems facing the Tax Department,
- Suggesting ways in which the Department should be restructured, and
- Defining proposed new roles for the central, regional and district offices

At the end of the series of workshops, the project team forwarded a report to the Commissioner and workshop participants summarizing the conclusions that had emerged from the exercise The basic recommendations, presented in only very summary form, were to streamline operations in a number of significant ways, to better define the roles and responsibilities of each unit, so that accountability could be imposed, and to provide support within the Department structure to decentralize decision-making and workload away from the Commissioner s office which was judged to be overburdened [23]

The Commissioner was receptive to suggestions for change and tasked the Central Department of Organization with preparing proposals for reorganization to be submitted for the approval of the Central Agency of Administration and Organization That Agency must give approval for any significant organizational change in any part of the Egyptian Public Sector The project team agreed to provide further specialist advice on reorganization and a second reorganization expert worked with the Central Department of Organization and reviewed the report that it had prepared for the Central Agency The report, which incorporated a number of project team recommendations, has been submitted to the Central Agency The Central Agency's approval of these recommendations was still pending as the project ended

3 District Office Organization and Staffing

The project team was anxious to assist the Department in increasing staff efficiency, and thus lowering the revenue to collection cost ratio, and believed that the implementation of the Global Income Tax provided an opportunity to effectively redeploy Department staff to other work areas Accordingly, the project team gave illustrative advice to the Organization Committee on the structuring of district tax offices in countries that operate a unified tax system The advice was directed towards retraining and redeploying staff who had previously administered the defunct General Income Tax to other duties However, the Department preferred to redirect these staff to traditional areas such as auditing, in keeping with their policy of auditing 100 percent of taxpayers, rather than to areas such as support for department automation, where the project team deemed the long-term payoff to be greater

4 ADP Organization

The successful introduction of automation in the vast majority of district offices of the Department, as outlined fully in Chapter VI, raised organizational issues about how the ADP function was to be staffed and organized within the Department Since the automation effort was just beginning, there was a significant shortage of skilled ADP professionals in the Department, which placed great pressure on the Central ADP unit to provide ongoing technical support to the districts and thus detracted from their broader systems development roles within the Department The problem was compounded by confusion over who had responsibility for managing performance of ADP staff in the district offices The project team recommended, and the Department subsequently implemented, two organizational reforms

- First, the Tax Department established local ADP sections and integrated them into the district office structure and command system The adopted structure includes sections for System Administration, Data Entry, Data Collection, and Data Verification The units receive technical support and only technical support, from the User Support Unit in the Central Department of ADP

[23] It is worth noting that in support of reducing the administrative and management burden on the Commissioner's office the project team procured two computer systems, software and ancillary equipment to help automate and modernize that office

- Second, the Central Department of ADP itself was reorganized by Ministerial Decree This central reform was designed to allow the department both to support users in district offices, and, at the same time to carry out specialist functions of system design and development, system documentation central processing, and quality assurance

This rationalization of the Department's ADP organization has gone a significant way towards ensuring that computer staff are employed most effectively and in their own particular field of expertise This has helped somewhat in relieving pressures from shortage of specialized computer staff However as in other countries, good computer staff are in demand throughout government and in the private sector, and the Tax Department has understandable difficulties in recruiting, training, and retaining sufficient staff to meet its computer needs This significant problem notwithstanding, the Tax Department ADP now very much functions on a self-sustaining basis is able to proceed with development and implementation of new software products and technologies

5 Planning

Although a Planning Department existed, its role within the Tax Department was very limited, with a primary focus on setting the basis for incentive pay (discussed later in this chapter) The Planning Department did not address the broad organizational and procedural issues facing the Department, and in fact its staff had no training in this area The unit was, in short, not in a position to serve as a catalyst for the internal departmental reforms that were needed The project team working with Mr Mohamed Seif from the Department, recommended that the planning process be given more importance in the Department, that the staff receive appropriate training, and that the unit be equipped with computer technology to support its expanded role The Tax Department was receptive to suggestions for upgrading the planning process and, as a first step, the project procured computer hardware and software planning tools to assist this process Resident advisor Naseer Ahmad advised closely on the design and programming for the planning process, but the Department worked independent of the project team in this area once this technology upgrading process was complete

6 Communications

To support the implementation of policy and internal change, the project team recommended that the Tax Department centralize and improve its management of both internal and external communications Departmental communications generally were not up to the standards of modern tax administration Various departments were involved in different aspects of communication Lack of central direction led to communications equipment being under-used, confusion of responsibility, and the loss of opportunities for modernization and increased efficiency

The project team made recommendations for bringing overall management and organization of communications within the control of a central Communications Unit The aim was for this unit to reorganize, standardize and improve the communications processes The Tax Department did not accept the idea of creating a central Communications Unit, but was persuaded of the desirability of improving communications within the Department and with taxpayers As a first step in this direction, it now produces a monthly tax bulletin giving details of legislation and departmental changes and other matters of interest The bulletin is available free to departmental members and the public

7 Office Environment

The general level of accommodation, facilities and physical layout are generally accepted to be important factors influencing employee work performance and morale They can also influence the public's perception of the performance of the Department with whom they are dealing The Tax Department's offices were viewed by the project team to be below desired standards and to be an obvious source of low staff morale and probably a hindrance to the provision of effective assistance to taxpayers The project team submitted a report to the Commissioner October 1995 addressing these issues, which outlined the potential benefits of both upgrading and standardizing office facilities The report argued that this could generally be accomplished within existing facilities and floor plans The report recommended that the Tax Department undertake a major review of the office environments at the district level and establish a plan for standardized refurbishment The Tax Department has now begun to address the issue of working environment in a serious fashion

- The Central Office building has been extensively restored and refurbished,
- Many local district offices have been similarly restored and refurbished,
- The Property Tax Office, which houses the income tax appeals committees' hearings has been refurbished, and
- The Tax Training Institute building has been expanded and thoroughly upgraded

8 Employee Compensation

Civil Service pay in Egypt is generally low In order to supplement basic pay and to motivate its staff to better perform, the Tax Department uses a system of reward or incentive pay While performance-based compensation has many merits, the system as utilized by the Tax Department has various shortcomings

- The system is based predominantly, if not solely, on quantitative output, with the consequence that the quality of work is not directly rewarded
- The use of collection targets for determining bonus payments for all staff in an office results in some distortion of collection statistics and also ignores the general principle that rewards should be directly linked to actions, many district office staff are engaged on work quite remote from the collection process and can have no impact upon the level of collections
- In addition, there is no real system of work measurement, so that the validity of targets set for performance pay purposes is highly questionable

The audit program displays the symptoms of these underlying weaknesses in the pay system and illustrates a problem that runs through all aspects of departmental performance Auditors are given a target of a number of cases to be completed within a month, and the target must be met if the auditor is to receive a performance payment A common taxpayer complaint is that the audits

118

performed are therefore superficial and result in overestimation of tax due To support recommendations for modification of the examination strategy of the Tax Department, and to promote improved staff performance, the project team made detailed recommendations for reform of the Department's pay system These focused particularly upon the current system of incentive or bonus payments and were designed to align the pavments system with high performance Associated with the question of performance and pay, the project team also made recommendations for more scientific systems of work measurement

In support of these recommendations, and in response to concerns raised by the Department, the project team engaged a consultant specializing in tax department organization and compensation issues, in order to equip the Tax Department itself to analyze and evaluate its needs The specialist advised the Organization Committee on modern principles and practice and worked with the committee in reviewing the needs of its own department thus translating theory into the practical Egyptian context The Department is now treating these recommendations with renewed interest, though no action has yet been taken

IMPROVEMENT OF OPERATING PROCEDURES

The Tax Department's procedures have been created for the administration of very complicated tax structure in a non-automated environment To transition from that environment to a simpler tax structure, as it continues to evolve, and to an automated environment, will necessarily take time It will also require a "champion" for change within the Department who can be dedicated to this effort virtually full time, with the full support of the Commissioner In the discussion below, the support by the project team associated with the beginning stage of introducing modernization and procedural change is outlined

1 Audit and Examination Strategy

Egypt income tax administration has traditionally audited 100 percent of taxpayer returns, even if the declared income is below the personal allowance threshold The result has been non-productive use of resources, and a large backlog of unsettled cases It is also unfair to the compliant taxpayer Audits of taxpayers are often perfunctory and generally are of low quality It is extremely rare for the tax auditor and the taxpayer to agree on the tax due, and the usual outcome of the appeals process is that the auditors proposed assessment be reduced Taxpayers cite this as further evidence that auditors simply make quick and unrealistic estimates of tax due

Although audit is a key enforcement activity, modern tax administrations do not in practice audit all returns Instead a system of selective audits is carried out, with only a small percentage of returns systematically and intensively audited each year The cases selected for audit are those deemed most likely to be under-reporting income The project team has recommended such a system for Egypt, both in its Redbook recommendations and in subsequent reports This would mean that all taxpayers' returns or files would be examined, but only prioritized cases would actually be audited Moreover, the audit undertaken would be as thorough as necessary and of a high quality In cases not audited, the taxpayer's declaration would be accepted or, in the absence of a declaration, an estimated assessment would immediately be made In both types of cases, the auditor would propose only figures that could be defended as a reasonable approximation to the taxpayer's true taxable income

The shift to a more selective audit system would be phased in over time as the taxpaying public gradually shifts to a more voluntary compliance ethic The Tax Department would have to begin to plan for this shift by developing a statistical system for conducting selective audits and developing improved capability to conduct more intensive audits of those taxpayers who were selected In 1994, a short-term consultant experienced in audit prioritization provided workshops and training to the Department, to better acquaint senior officials and staff with the concepts and the specific methods of audit selection used in developed countries

The project team also suggested that assessment and appeals processes be substantially streamlined Under the current systems, with a relative weak penalty and interest structure, the lengthy process currently in place works to the considerable advantage of the taxpayer

The current Tax Commissioner Mr Fakhri Saad El Din has responded positively to the idea of a higher share of resources being directed to fewer but more profitable audits and has indicated his concern to improve compliance generally As noted earlier, legislated increases in the family benefits allowance have removed millions of taxpayers from the tax rolls, thereby freeing resources for this initiative The Minister of Finance and the Tax Commissioner have made public statements that in the future returns that are supported by credible records will not be audited The Tax Commissioner has also issued a Departmental Decree to this effect, reminding auditors that the Law requires the Department to accept taxpayers books and records unless there are very good reasons not to do so In December 1997 Law No 159/1997 setting down the right and conditions for "compromises" in taxation litigations between the Tax Department and the taxpayer was passed The procedures to be followed in administering this new law are contained in a Ministerial Decree No 1/1998 issued by the Minister of Finance

In addition two draft pieces of legislation have been prepared that would move tax administration in directions recommended The separate pieces of draft legislation would

- Establish a new appeals system with independent and tax-specific tribunals to streamline the current process and improve the quality of appeal decisions, and
- Toughen the penalty system (though the informal sounding of opinion in the People's Assembly suggested that this draft legislation might require revision before it would be passed)

2 Quality of Audits

To support the auditor, the project team recommended that the Tax Department establish a specialist unit to set technical standards of audit and to supply auditors with national data on the business economics and average business results (for example, gross profit rates) for particular types of business The data would be used both in audits and in estimating assessable income in the absence of a return

With a view to improving the quality of tax audits in Egypt, the project team provided advice on the precise steps that should be taken during a full tax audit, and supplementary advice on the use that could be made of information such as a taxpayer's wealth declaration The project team

120

produced a detailed and comprehensive description of the contents to be included in a technical manual for auditors, together with specifications for the format and production of such a manual The Tax Department chose not to accept the project team's offer of a joint collaboration to write the full manual Work in the area is ongoing, the degree to which the Department ultimately adopts recommended changes by the project team remains to be seen

The project team commissioned a consultant, specializing in the area of computerized collection and transmission of tax data to review the handling and use of third party information within the Tax Department Recommendations for improving and computerizing departmental procedures were made and some have been adopted

3 Presumptive Taxation in Lieu of Recordkeeping

Ideally, all taxpayers keep adequate records and, if requested, can provide those records for audit In many cases, however, the ideal is not attainable Taxpayers either do not keep records or do not make them available to the authorities To address this situation, and in order to encourage smaller taxpayers to keep adequate books and records, the project team provided detailed recommendations on the introduction of a system of presumptive taxation, whereby delinquent taxpayers would not be audited but would be presumed to have a certain level of income Under presumptive taxation the level of income would be established for different categories of taxpayer on the basis of national data, derived from tax audit files for similar types of business The recommendations were included as a separate issue paper in the 1992 Redbook Detailed recommendations for applying presumptive taxation in Egypt were subsequently prepared and forwarded to the Commissioner and a further detailed paper on presumptive taxation was supplied directly to the Minister of Finance in connection with recommendations made by the Egypt Corporate Tax Project for introducing presumptive methods The subject is still under consideration

4 Backlog of Cases

The Tax Department faced for many years an inordinately large number of tax cases for prior years A number of recommendations in the Redbook were designed to address the backlog situation that existed in 1991/92 and to help prevent the development of future backlogs These recommendations included tax law changes to substantially reduce the number of taxpayers, the introduction of a more effective penalty structure, and the development of a computerized case-tracking system for identifying and following up on delinquent taxpayers

The existing backlog of cases in 1992 was a major policy issue to be addressed at the time of the introduction of the global income tax The question was how to deal with the large backlog of tax cases, as quickly as possible, so that the Tax Department and the tax-paying public could look to the future, not to the past In the interim it meant that both the Tax Department and the taxpaying public would be dealing simultaneously with tax issues under two entirely different systems Various "one-time" solutions offered themselves such as accepting the unaudited amounts reported by taxpayers for all years except the immediately preceding year Alternatively, taxpayers could be offered the option of filing for prior years on the basis of the new law, which would be more generous than existing law for most taxpayers

121

Ultimately, the Department decided to focus all of its resources on processing outstanding cases though this considerable administrative burden was somewhat lessened by the Department's readiness to reach accommodation with taxpayers whose affairs were in arrears The result was that by December 1993, when the Global Income Tax was introduced, all cases had been cleared to December 1992 This represented a major achievement and greatly reduced the extent to which the Department was called upon to apply both the old and new laws at the same time

5 Introduction of a Unique Tax Administration Number ("TAN")

As noted previously, the Tax Department, the Sales Tax Department and the Customs Department have adopted a common TAN, consistent with project team recommendations The Tax Administration Number is now used on taxpayer identity cards that the Tax Department has issued to all taxpayers The project team assisted in establishing how blocks of TANs should be allocated to district offices and on procedures for issuing them

The introduction of a unique taxpayer identification number was necessary for several reasons The Department's existing numbering systems for taxpayers had proved inadequate as a means of identification, with the result that taxpayers were allocated more than one number As a result, it was widely reported that taxpayers using two or more numbers were able to claim personal tax allowances multiple times Procedures to prevent such duplication, developed jointly by the project team and the Tax Department, are now in place

The number was also necessary for purposes of computerization Using the number, the Tax Department developed masterfiles of information for all taxpayers both at the district office level and in the Central Department of ADP (national level) The masterfiles in turn allow the Department to track the assessment and collection process for each individual taxpayer thus allowing departmental officials to see immediately the current status of the taxpayer's tax affairs It also provides a management information system by which the returns examination and collection processes of the Department can be monitored

The Department procured from its own funds printing equipment to produce the taxpayer identity cards bearing the TAN and over four million cards million have been issued

6 Exchange of Information

Because the TAN is common to the Tax and Sales Tax Departments (as well as Customs), it facilitates the exchange of tax-related information between the two departments At the initiative of the Departments, and most notably Mr Mahmoud Ali, the project team worked closely with both departments, initially to match sales tax registrants' records against taxpayer records held by the Tax Department, and subsequently to develop procedures and controls for exchanging information on individual taxpayers As noted in the earlier discussion of this issue, the exchange assists the two departments both in identifying unregistered persons who are liable to tax and in identifying persons who are non-compliant in declaring tax due The advantage to tax auditors of knowing that an auditor from the other department has uncovered evasion, the level of evasion and the method of evasion employed are self-evident The TAN is now used by the Tax Department to cross-check information with the Sales Tax Department and as noted earlier, a Ministerial Decree has been issued requiring relevant taxpayers to include their sales tax data on a statement

122

accompanying their income tax return The cooperation between the departments in respect of the TAN has been a significant milestone boding well for improvements in tax compliance and for further inter-departmental cooperation in the future The fact that the departments, and their leaderships, are working together closely represents a major positive change that occurred over the life of the project

7 Anti-Evasion Program

The Evasion Sector of the Tax Department is considered within the Department to be an elite unit The unit deals with cases of tax evasion, but has very little to do with the work of the tax district offices Unlike most other tax administrations, in the Egyptian Tax Department, the tax district office is rarely a source for referring cases of evasion, or suspected evasion, to the Evasion Sector's specialist investigation units Rather, the Evasion Sector takes up cases on the basis of its own investigations, usually following receipt of information from an informant or the police A taxpayer who submits returns to the district office is unlikely to be referred to the Evasion Sector, even if his or her return is incorrect, unless he or she has committed an act of evasion that has come to the attention of the Evasion Sector by other means

The Egyptian tax statutes define tax evasion rather narrowly to include only the following

- Submission of a return supported by fabricated books containing information contrary to real books which are concealed from the Department,
- Submission of a return claiming that no books exist, while in fact concealing such books (containing evidence contrary to that in the return) from the Department,
- Destroying or concealing books, records or documents before the date of expiration specified for the prescription of the tax debt,
- Pretending to distribute profits to a fictitious partner in order to reduce partners tax liability,
- Fabricating or altering sales or purchases invoices, or other documents, in order to reduce taxable profits or increase losses, and/or
- Concealing one or more taxable activities

Acts, such as understatement of income in a tax return, or false claims regarding expenditure, that would be termed evasion by other governments are not treated as evasion in Egypt In consequence, prosecution rarely ensues from such acts and penalties are not usually recovered Rather, the tax auditor treats the mis-statement of income as no more than a reason for estimating additional tax due and ignoring any records kept by the taxpayer Needless to say, this approach has a detrimental effect on compliance in that the taxpayer may file a false declaration almost with impunity because of virtual immunity from the threat of investigation, prosecution or imposition of penalties

Alongside the lack of formal structures for collaboration between district offices and the Evasion Sector, there is also a lack of confidence in the integrity and ability of the district staffs on the part of the Evasion Sector The net result is that the Tax Department does not operate a regular system for identifying evasion at district level and has rather a constricted program at the central level

In 1995 an expert consultant in the project team provided training and technical advice on the important subject of anti-evasion techniques to a select group of department officials The consultant also made a number of recommendations on the role and organization of the Evasion Department and the general response was encouraging The Tax Department indicated a desire to pursue the question of reform further, and at departmental request the consultant was commissioned for a second mission to Egypt to address these further issues

In addition to the training by the special consultant, the project team made a series of recommendations, for procedural and statutory reform, aimed at the development of an expanded anti-evasion program, based on the greater utilization of tax audit and other resources at the district office level Primarily, the project team recommended that

- Provision should be made for the regular and frequent referral to the Evasion Sector, from districts, of cases in which evasion is suspected,
- Steps should be taken to estimate the amount of extra work this will generate for the Evasion Sector, and later to measure the increased tax yielded by such work,
- The Evasion Sector should review the criteria it employs in deciding which cases it will pursue, and
- Consideration should be given to including serious cases of under-declaration of taxable income in returns within the relevant statutory definition of evasion

The Department has shown itself keen to improve and to automate its anti-evasion operations procedures and database and the project has assisted this initiative by procuring computer systems to automate six pilot anti-evasion offices

8 The Current Account Card

The collection procedure adopted by the Tax Department is labor intensive, complicated and duplicative Each district office has a collection branch and the key unit in that branch is the Current Accounts Unit This unit is responsible for completing the current account cards of all taxpayers, to show the amount of tax they owe, the tax credit (usually under the Discounts and Additions system) due, tax paid on demand, and details of any installment arrangements or property seizures Individual taxpayers could each have several current accounts cards and the Current Account Unit is responsible for collating data from the Audit Branch regarding liability, from Discounts and Additions regarding tax credits, and the rest of the Collection Branch concerning collection and payments

The current account card and its related procedures offered itself as a primary candidate for computerization Computerization accelerates data capture and makes the card a more reliable tool for tracking the tax owed and payments made by the taxpayer The project team was successful in advising the Tax Department to computerize the current account card and in its efforts to assist development of the program This initiative is discussed more fully in Chapter VI

The computerized current account card gives a current statement of the taxpayers net indebtedness to the Department, but it does not play a part in the actual processing of cash transactions themselves This was done manually in tax district offices However, it became apparent to the project team that the Tax Department could adapt the Computerized Cashroom Subsystem developed for the Sales Tax Department for use by the Tax Department The project team worked with the Tax Department's ADP Sector to make the modifications necessary to render it suitable for income tax use, and at project close this effort was completed and the system was being piloted in select Tax Department district offices The Department's plan is to introduce the cashroom system in all district offices over time, once the pilot testing is completed and as new computer hardware is procured This modernization reform represents a major step forward for the Department

9 Use of the Banking System in Tax Collection

The banking system in Egypt has been expanding and computerizing This suggested that the banking system might at some point be linked to the tax collection system throughout the country Several countries have integrated the private or public banking system into the collection process on terms advantageous to both the banks and the tax authorities The project team has encouraged the Tax Department to explore this issue, and seek to collect a great part of direct tax revenues through the banks, particularly as the Department had shown interest in using the banks in the Discounts and Additions system In Project Papers in 1992 and 1993, and in subsequent communications, the project team made extensive recommendations for use of the banking system in the tax collection process, with the goals of (i) streamlining and accelerating the collection process and (ii) reducing compliance costs to the Department and the taxpayer The banks would secure a reward for facilitating the system in terms of free use of public moneys for short periods The GoE has recently shown increasing interest in this idea and will have the project team's prior work as a foundation on which to build as it pursues this initiative further

10 Forms Development

At the outset of the project, many of the forms in use within the Tax Department were antiquated and unnecessarily complicated They had evolved slowly over many years and were not the result of any concerted effort to make the forms clearer and user friendly Moreover, the forms did not reflect the fact that the Department was beginning to computerize its operations and therefore needed to be suitable for easy data capture In addition to these factors, which argued for forms redesign even in the absence of legislative reform, the introduction of the Global Income Tax essentially required the redesign of all income tax forms currently in use

When the Global Income Tax was introduced, the project team worked closely with the Forms Committee in the Department to develop a new, modernized, return form applicable to the new tax The project team emphasized the need to involve the ADP Sector in this process, to assure that the form not only captures the data required for purposes of tax calculation and compliance, but that it does so in a way that facilitates computerization of the tax process

The project team was also anxious to attempt to institutionalize the capacity for forms design within the Tax Department, and recognized that there was no unit within the Department that had this responsibility The project team recommended that such a unit be established and provided

125

further support by bringing a specialist consultant who conducted a series of forms design workshops by procuring forms design equipment for the Department, and by preparing a report and recommendations on the reorganization of forms design and use within the Department Those actions were positively received by the Department

The project team also emphasized that tax forms needed to be accompanied by full and clear instructions on how the tax forms should be completed, and by tax guides explaining the various elements of the new tax law and the responsibilities of taxpayers The project team made available to the Forms Committee translations and original copies of the types of such materials produced in other countries These materials will serve as input to the Department in creating such materials

11 Improvement of Withholding Tax Procedures

In the case of both interest and wages and salaries, the project team contributed recommendations for significant reforms during the course of the project

- *Interest* During the initial drafting of the global income tax law, it had appeared that systems of withholding tax at the source of income would play a major role in Egyptian tax reform Withholding at source is a significant factor in promoting high levels of tax compliance and the project team recommended its use to the full extent practicable For some period of time during the tax policy debate, inclusive of the original tax reform submission to the Peoples Assembly, it was thought that bank interest would be made taxable at source The project team therefore made various suggestions and recommendations for using the banks as withholding agents Bank interest ultimately retained its tax-exempt status,[24] so that this work has not had an immediate use by the Department It remains as a reference for the future, if withholding at source is extended in Egypt
- *Wages and Salaries* Egypt has a system of tax withholding on salary and wage income, though in 1989 this was rather inefficient due to the multiplicity of taxes and fees to be withheld In addition, the law was unclear on the nature of certain exemptions and allowances that took up a lot of audit resources The schedular nature of the tax and the existence of a separate general income tax also complicated administration The Global Income Tax took around 3 million wage earners out of the tax net For those whose sole income source is employment, the new law removed the requirement to file a return These measures certainly eased the administrative burdens on the tax department, and taxpayer, but did not directly affect the employer withholding agents
- The project team also recommended that withholding agents enjoy some benefit from the new law and made recommendations to the Tax Department for the production and distribution of tables for calculating the tax to be withheld, similar to those used in most countries operating a Pay As You Earn (PAYE) system The project team also recommended that the Tax Department introduce taxpayer advice literature for distribution to employers and employees and made examples of such literature, from a variety of other countries, available to the Department The project team's recommendations in this area have not to date, been adopted

[24] As noted in Chapter III legislation in 1998 imposed limits on the deductibility of interest in lieu of taxing interest income directly

126

12 Discounts and Additions

The Discounts and Additions system, as discussed previously in the report, is a transaction-related system of withholding and crediting that is unique to Egypt The system is incredibly cumbersome time consuming and inefficient and places significant administrative and financial burdens on the Tax Department, the withholding agents and the taxpayer The project team therefore recommended abolishment of the system and its replacement with a system of estimated advance payments These recommendations were not initially accepted, although legislation is now before the People's Assembly that would implement this recommendation

Having failed to secure abolition of the system to date, the project team attempted to ameliorate some of its worse aspects through the implementing regulations for Law 187 The objective was to reduce the number of forms that withholding agents have to complete and the amount of data they have to report The Withholding Committee, working with the project team, did recommend that the withholding agents complete one, simplified form only The project team was also successful in integrating members of the Department of ADP into the deliberations of the Withholding Committee, thereby ensuring that the new form and procedures recognized the importance of automated data capture Finally, the project team and the Withholding Committee jointly recommended that the several different rates at which discounts and additions were made should be combined into one average rate, thereby simplifying the administration of the system for all concerned

In January 1997, the Department drafted legislation to raise the threshold of withholding from LE 10 to LE 200 per transaction and take several classes of commodities out of the system This legislation was not enacted As noted above, legislation is now pending that would replace the system with an estimated payments system This latter reform would represent a major step forward in simplification for the Department, as well as for the taxpaying public, and could have favorable revenue consequences for the GoE as well

13 Taxpayer Service

Modern tax departments often provide taxpayer education and assistance in the interest of eliciting voluntary compliance Taxpayers cannot comply with that which they do not understand The amount of taxpayer assistance provided by the Egyptian Tax Department has historically been quite limited, and has varied from district to district, depending upon the attitude taken towards taxpayer assistance by the District Manager The Department has "public affairs" officers but their main function is to direct taxpayers to the auditor handling their case Also, the Tax Department does have a General Department for Public Relations, which is centrally based and reports to the Commissioner Its work in the past has been primarily that of ensuring that stories or advertisements, generally unrelated to taxpayer assistance, appeared in the national media on the Department's behalf

The introduction of the Global Income Tax was viewed by the Department and the project team as an opportune time to begin providing expanded education and assistance to taxpayers A Publicity Committee was established to advise the public about introduction of the new tax and its implications The project team worked closely with this Committee on this effort before the new tax was introduced and in the first months following its introduction Committee members had the advantage of having worked with the national media in Egypt the project team, in turn had experience with information campaigns, establishing specific groups to whom to target publicity, developing priorities, and developing specific media packages A series of meetings between the Committee and the project team produced a campaign that included the use of mass media, together with more traditional methods for giving advice at local office level Publicity coverage achieved for the new tax was widespread and generally successful

During the course of the work with the Publicity Committee, it became apparent that staff are not specifically trained in handling regular and routine taxpayer inquiries, no literature is produced as part of a permanent taxpayer education package to be made available to the public, and there is no concept of proactive service, or of trying to identify taxpayer and public needs, and service them, before the taxpayers raise specific problems or complaints

It was clear that a cultural gap had to be bridged in terms of how civil servants regard the public they serve and to this end the project team first gave a seminar to the Public Relations Department on the principles of taxpayer service, and methods adopted in the U S Taxpayer Assistance Program The project team then used the services of a specialist to give a series of seminars to members of the Department and explain the concept and how the Department might develop a practical plan for introducing a taxpayer assistance program in Egypt

These efforts have been successful and the Tax Department is now taking steps towards expanding the role of taxpayer assistance It has produced a booklet for departmental staff, the public, and practitioners showing how the old law compares to the Global Income Tax This represented a first step in the direction of keeping people informed As noted earlier, the Department has also started to produce a monthly magazine bulletin, provided free to the public, covering various taxation issues of interest to practitioners and taxpayers Complementing this effort the Department has developed its own computer web site to take this concept further

MODEL DISTRICT OFFICE

The project team was conscious of the need to provide empirical evidence of the practical merits of the organizational and administrative reforms it recommended Putting such recommendations into operation, on a test basis in a pilot district office, where feasible, would help to demonstrate the virtues of moving administrative reform and modernization forward This effort would, of course, be constrained by applicable laws and regulations, but it would nevertheless provide opportunities for field testing reforms in a number of areas

The primary project team objective of this initiative, like in the companion initiative that in the Sales Tax Department, was to bring one specific tax district office to a level of organization and performance that might serve as a future model for all other district offices, both during and after the project For obvious reasons, the more typical such a model, the better it would prove as a testing ground and launch pad for reform At the same time, the current operational position of the office had to be such that reforms could be introduced without significant disruption of the daily work processes, and with a reasonable chance of proving successful

Agreement was reached with the Minister of Finance in mid-1992 on the launch of a "model district office initiative " It was decided that Cairo Corporate Office 1 should function as the direct

128

tax model office Initially this seemed a good choice, for a variety of reasons The Corporate Office dealt only with the files of corporate taxpayers and this suggested that its workload would not be so heavy as to prevent smooth introduction of organizational and procedural reforms The office was also viewed by the Tax Department as its most successful district office in terms of efficiency and revenue collected Moreover, because the office dealt with the affairs of the largest taxpayers, improved performance in the Corporate Office would have an early and significant effect on the level of tax collection

Unfortunately, the choice of Cairo Corporate Office was not as well made as first appeared Choosing a corporate office was, de facto, to choose an untypical office, since only three of the approximately 225 district offices dealt with corporate taxpayers Moreover, the Tax Department itself was unsure of the rationale underlying the corporate offices, and began transferring taxpayer files from them to the nearest "geographically" based – and more typical – tax districts However, this process was aborted before completion, so that some corporate files were transferred to the nearest district office and others were not This turmoil raised serious doubts regarding the suitability of taking the corporate office as a model, these doubts were heightened when it became clear that the new global income tax law would not address corporate tax reform

Accordingly, and while continuing internal reviews of audit, collection and information distribution procedures in Corporate Office, the project team asked the Tax Commissioner to nominate a more typical, geographical tax district, to serve as the model After some time lapse, the Abdin district office was chosen, and after some Department-induced delays, work commenced

Success was achieved at Abdin in the area of computerization The Tax Department's desire to automate its procedures and information systems stood independent of any changes in the tax law and regulations The project team worked closely with the Central Department of ADP staff to use the model district office as a testing site for new computer applications The office served as a pilot site for the development of the district office Masterfile Registration System and for subsequent enhancements of the Computerized Case Tracking subsystem Use of both of these systems was subsequently extended to all automated offices The model district office was also the pilot site for development and testing of the Current Account Card application and MIS applications Later discussions between the Model district office staff and the project team were successful in establishing that all collection data currently captured manually in district offices can in fact be captured electronically Electronic capture of the data at the time of payment, as discussed in Chapter VI, will greatly enhance the Department's ability to process and utilize collection data in planning operational activity

The introduction of organizational and administrative reform in Abdin, however, was less successful Work undertaken in the Corporate Office suggested the desirability of introducing greater selectivity when choosing cases for audit, but despite project team recommendations, the Department's strategy of auditing 100 percent of taxpayers remained in place The Department also did not desire to affect administrative reforms before the administrative regulations to implement the new global income tax law were issued Delay in their issue, and the limited impact of the law itself in the administrative sphere delayed reform in the model district Similarly, while the project team did look into the organization of work flow and taxpayer assistance at Abdin, the pace and extent of reforms was less than that envisioned when the initiative took place The general

129

conclusion that emerged from this effort was that technology-related reforms could productively be piloted in the Tax Department but administrative and organizational reforms were more likely to require a Department-wide initiative Regulations and the law govern almost every aspect of office procedure One office cannot simply ignore the regulations in place in order to try something better In addition all tax offices anywhere in the world are obliged to ensure consistency of treatment of taxpayers For equity issues, therefore, it could be argued that every taxpayer gets the new treatment or none do

FUTURE WORK

While there has been much that has been accomplished in the Tax Department during the course of the project, the progress that was made in reforming and modernizing its operations fell significantly short of that which was achieved in the Sales Tax Department A number or factors appear to have influenced this outcome

- The Tax Department is a much larger Department, and has been in existence for nearly six decades The momentum of the past casts a very large shadow The Sales Tax Department, in contrast, is much smaller and in 1991 began administering an entirely new type of tax
- The Tax Department did not organize for and commit to reform as early in the project as did the Sales Tax Department While technology-related modernization in the Tax Department was embraced throughout the life of the project, internal procedural and organization reform occurred much more sporadically
- A person must be deputized and authorized in the Tax Department to champion reform The Department is too large, and the responsibilities of the Commissioner too great, for him to lead the Department and manage a major internal reform effort Even in the case of the smaller Sales Tax Department, the dual role has been at times almost overwhelming for Commissioner Mahmoud Ali

In the discussion below a number of specific areas are identified for internal administrative reform All are important, and if effectively implemented, all would greatly improve the overall operations and efficiency of the Tax Department's operations All of these initiatives would be enhanced by a concerted effort to simplify the legal and administrative structure of taxes in Egypt This could include the elimination of Discounts and Additions, as noted before, the elimination of the Proportional Stamp Tax, which effectively levies an entirely separate income tax on Government employees, the elimination of overlapping Development Duty, introduction of more effective penalty and appeals systems, as have already been introduced to the Peoples Assembly, and more Based on direct discussions with Minister Gharib and Commissioner Fahkry, the project team believes that there is strong support for these kinds of reforms in the future, and the GoE track record for introducing tax reforms is good, as discussed in Chapter III

1 Introduction of an Estimated Payments System

The movement away from Discounts and Additions and toward an estimated payments system is highly desirable and an inevitable reform that will occur in Egypt The sooner it occurs the better for both the Department and taxpayers alike Support for this reform, which appears to be gaining momentum, would be desirable, because the Department has no practical experience in administering an estimated payments system, preparing the implementing regulations and enforcing compliance

2 Tax Avoidance

The growing success of the privatization program and the GoE's policy of encouraging foreign inward investment means that a growing percentage of the corporate sector will be in private hands Unlike public sectors companies, private sector companies have a distinct incentive to minimize their tax liability, often structuring arrangements in a highly artificial manner Certainly, in every other part of the world, multi-national enterprises have demonstrated their willingness to enter into, and expertise in carrying out, tax planning with a view to tax avoidance The result is a significant erosion of the tax base and distortion in the market There is no reason to believe that Egypt will not suffer from tax avoidance unless steps are taken to counter it At present, the Egyptian tax code contains only the most rudimentary anti-avoidance provisions Additional technical assistance could usefully undertake a through review of the existing legislation and make recommendations for strengthening or introducing provisions to counter the most common forms of avoidance This could include establishing an anti-avoidance unit of the most promising tax auditors within the Tax Department

3 Tax Evasion

It is clear from both public and private statements that the Minister Gharib and Commissioner Fakhri are concerned about the continuing high level of evasion The Tax Department Evasion Sector is in the process of reorganization and is reviewing its operational procedures and use of information in countering evasion The project has procured computer systems for pilot testing in six Evasion Sector offices Additional technical assistance could be directed to working closely with the sector in pilot testing new computer systems and redesigning procedures to make best use of them If the pilot testing is successful, additional support for further automation of the sector would be desirable

4 Appeals Process

The GoE has introduced legislation to reform the appeals process Additional technical assistance could support the introduction of the system, including a publicity campaign to increase taxpayer awareness of it, once enacted

5 Taxpayer Assistance

The Tax Department has shown increasing interest in taxpayer assistance and has taken various steps to expand the assistance it gives to taxpayers Additional technical assistance could support further expansion and development of these efforts

6 Computerization

There are a number of initiatives associated with computerization that require further work These are discussed in Chapter VI A new project could support these initiatives by provision of technical advice and strategic procurement of equipment and software

7 Collections through Banks

The expansion and modernization of the banking sector in Egypt makes it a vehicle well-suited for handling tax payments The Sales Tax Department is currently researching the possibility of tax payments being made directly to banks and a new project should support similar research by the Tax Department If as is expected, use of the banks is feasible, additional technical assistance could assist system design and implementation

VI COMPUTERIZING THE DEPARTMENTS

BACKGROUND

This chapter discusses the considerable efforts that were made by the Public Finance Administration Project team, working with the departments, to introduce new computer hardware and software technology into the tax processing and tax administration environment of Egypt Efforts are made where possible to limit use of technical terms, but for some parts of the discussion, the descriptions will communicate only to those with some background in the technology field

The discussion of the project team's work is separated into that which was done for the Sales Tax Department and that which was done for the Tax Department This organization is not just for purposes of organizing the exposition, because in fact the work for the two different departments proceeded in quite different ways from the outset of the project When the project began, the Tax Department already had a trained and operational data processing staff, though the application of data processing in the Department was limited While the ADP Sector" staff welcomed technical support from the project, the staff wanted to do all of the systems development work internally The project team role was, therefore, primarily advisory until the later years of the project, when it was able to work with ADP Sector staff to transfer some of the technologies that were developed by the project team for the Sales Tax Department

In contrast, in the case of the Consumption Tax Department, which later became the Sales Tax Department there was not a single computer of any kind in use in the Department Because the decision had been made to proceed with implementation of a new sales tax as soon as possible, and because the Minister and the Department leadership wanted that new tax to be supported by computerized systems from the outset, the project team assumed responsibility for developing these systems At the recommendation of the project team, the new Sales Tax Department did recruit five experienced technology professionals from the Customs Department, to establish a foundation for a new data processing unit This new unit, by definition, was a start up operation

In these two quite contrasting environments, which represent an interesting case study of alternative approaches, the project team was able to contribute significantly to the advancement of automation in both departments In the project team's view the advantages of the "sales tax model" to computerization resulted in a faster start-up – which was required to support the implementation of the new GST – but the "income tax model" resulted in faster technology transfer, because there was more on-the-job training and production by the Department staff In hindsight, the use of the different approaches in the two departments continues to make sense, especially since some of the technologies developed by the project team for the Sales Tax Department were later transferable, with modification, to the Tax Department Both departments, it is worth noting, were receptive to this technology transfer

The technical assistance provided by the project team under this component of the project benefited from sustained efforts by internationally-experienced technology professionals For a period of more than six years, Dr Malcolm Lane provided oversight to the automation effort Dr Lane is perhaps one of the most experienced IT professionals in the introduction of tax administration systems in emerging market countries Two internationally experienced resident advisors provided sustained and outstanding support for almost the full duration of the project Mr William Hernandez, who had previously worked on tax administration systems in Latin America, supported the automation effort for 8-1/2 years of the project Similarly, Mr Neil Glennie, who had worked previously in Africa and the Caribbean on such systems, led the development of the General Sales Tax Administration Systems (GSTACS) over the more than seven years that he resided in Egypt This continuity, supported by other resident advisors and a strong local project team, was a major contributing factor to the project team's success

The local Barents project team, itself, is worthy of special note This team of five technology professionals provided great leverage to the resident advisors, supported all the systems development in the Arabic language (which represented a major part of the early systems-development challenge), and ultimately worked day-to-day with the department staffs in development, implementation and training Their contributions were invaluable and, indeed, the Sales Tax Department has expressed an interest in retaining at least some of these professionals after the project ends to provide continuing technology support

The many talented information technology professionals in the two departments who worked with the project team also deserve special recognition and mention Whatever contributions the project team has been able to make in automating sales and income tax administration have been leveraged through these many talented professionals who are now effectively moving the automation process forward in their respective departments Many of the key information technology professionals with whom the project team has had the good fortune to work are identified in Exhibit VI-1 Below

The role of the project in procuring and installing computer systems also deserves mention here Without the support of USAID, the Departments would not have had the financial resources to procure the initial computer equipment that was required to begin automating the Departments

Project procurement was executed in accordance with formal procurement plans, that were developed by the project team and then modified and/or approved by a procurement committee that included the USAID Project Officer, the project Chief of Party, and the Commissioners of the tax departments Over the life of the project, a total of 292 microcomputer systems, representing the state of the art at the time of purchase, were procured for District and Regional offices A further 72 microcomputer systems were purchased for the departments for others uses Finally, a more powerful state-of-the-art computer was purchased to upgrade the Central Processing Center of the Sales Tax Department

The project team took the lead role in all of the major procurement efforts and also worked closely with the Departments in preparing the sites for these computers Site preparation proved to be one of the most constraining factors in moving the computer installation process forward, but the time spent in this effort has paid off systems installed in 1991 are still operating in 1998!

134

Exhibit VI-1
KEY GOE PERSONNEL

I Sales Tax Department	
Yousria Hebeisha	ADP General Manager
Adel Hagrasy	Operations Manager
Mohammed Ismail	Programmer
Mostafa Ismail	Programmer
Wafaa Ibrahim	Programming Manager
Ahemed Lamei	Programmer
Iman Mahgoub	Programmer
Maher Kotb	Programmer
Amal Lamei	Programmer
Amal Radwan	Programmer
Mona Nasr	Programmer
Nagwa Omar	Engineering Dept Manager
Nevin Elghazouly	Engineer
II Tax Department	
Gamal Gamgoum	Quality Assurance Dept General Manager
Samir Hussein	Operations Dept General Manager
Lotfi Abd el Wahab	Programmer
Fathallah Abu El Fotouh	Programmer
Fatema Habashi	Quality Assurance
Fathi Abd el Azeez	Quality Assurance
Mona Atia	Quality Assurance
Abd el Tawab Abd el Azeem	Training Manager
Bothaina Salah Eldeen	Technical Support Manager
Tharwat Abdl Baki	Engineer
Essam El Ashry	Engineer
Nora Sami	System Operator
Mosatafa Hafani	ADP Director, (1989-1991)
Salah Ahmed Mahrous	ADP Director, (1991-1995)
Maha Hasan Ahmed	ADP Director (1996-Present)
Ibrahim Ali Ibrahim	ADP Deputy Director
Ahmed Wehady	Engineer
Hesham Rashwan	System Operator
Tarek Abd El Nabi	Engineer
Mustafa Yousri	Engineer
Taha M Ibrahim	System Operator
Mona Hassan Mohamed	Engineer
Mohamad Tolba	Engineer
Moktar Abd El Fatah	Engineer
Eissa Mahmoud El Wekil	Program Manager
Usama Mahmoud	Engineer

As a final point related to procurement, the project team faced significant pressures at the outset of the project to purchase computer hardware before the applications were completed, and, again later before the physical sites were prepared These pressures were resisted, so that the systems purchased could be tailored to their ultimate use, and so that, in a fast moving technology environment, the latest technology could be procured

Further constraints on the procurement efforts included (1) the need to ensure that there would be in-country maintenance support for the systems procured, especially once they were turned over to the departments, and (2) the need to ensure that the procurement process complied with the myriad regulations governing purchases made with U S Government funds, not the least of which is that the commodities be of U S source and origin The project team devoted a considerable amount of resources to ensuring compliance In addition, an extensive inventory control system was established that tracked equipment as it was delivered and turned over to the departments, who then assumed responsibility for its maintenance and usage

COMPUTERIZATION OF THE SALES TAX DEPARTMENT

OVERVIEW

A strategic long-term decision taken by the GoE was to accompany the new sales tax with a shift from an entirely manual system of tax administration (i e , the Consumption Tax Department had no computer capability in 1990) to one that would be fully automated A first step in the process, corresponding with the adoption of the new tax law, was the creation of a sophisticated computerized system for registration and for recording of tax liabilities, payments and refunds This shift to an automated sales tax processing environment was a major change for the Department, integrating modern data processing within a Department with no prior experience was a major challenge at all levels of the Department hierarchy

This initiative resulted in the creation of what is commonly referred to as the GSTACS (for General Sales Tax Administration Computer System) GSTACS began as an application to automate the administration of registrant biographical data, associated tax liabilities, payments and refunds

From this limited starting point, GSTACS has evolved into a series of independent yet highly integrated applications, referred to as GSTACS subsystems The subsystems, as shown in Exhibit VI-2, are used to provide a variety of operational, processing, statistical and management reports, to capture payments 'at source' (i e , within the Sales Tax Department's cashroom), to perform on-line master file queries, to transfer transactions and reports via a wide-area network, to facilitate cost effective audit selection and to support debt management

GSTACS provides a more efficient method of performing tasks that would otherwise be performed manually, such as recording payments made by registrants Perhaps even more importantly, GSTACS extends the capabilities of the Department to areas previously unattended, such as regular, *timely* monthly reporting of registrants who have not filed a tax return or settled a payment due

Exhibit VI-2 GSTACS Subsystems	
Subsystem	**Description**
1	Registration, tax returns, adjustments, system validation
2	Management and periodic reports
3	Cashroom (payments)
4	Audit selection & control
5	Debt management
6	Table 1 commodities
7	District office on-line inquiry

Initially, development of GSTACS was performed by the project team system specifications and requirements were determined, development standards for programming style, screen and report layout, and documentation were created, technical issues, such as how to best support the Arabic language character set, were resolved, programming commenced

At the same time, physical office space for Sales Tax regional offices (initially eight regional and one central) was identified Many procedures, tasks and standards were required to successfully install computer systems in these offices Standards for site preparation, inspection and acceptance were established, and appropriate hardware and systems software were identified and purchased by the project

To encourage a smooth transition into a computerized environment, software development was segmented into several manageable, progressive stages, each containing several substages In the first stage, sales tax data were transcribed onto data entry forms by each of the forty-five district offices, these data entry forms, in turn, were batched to one of the eight regional ADP sites for data entry This arrangement required the appointment and training of staff for data entry in the regional offices, and the establishment and training of staff in data preparation procedures in the district offices

In the second stage, commenced in 1993, district offices were progressively computerized and ADP staff were appointed and trained for direct data input This greatly simplified the process for getting data to the regional and central offices A wide area network was subsequently established, linking major district offices, all regional offices and the Central Processing Center together Networking allowed data to be transferred electronically, on demand, and with instantaneous transfer speed This greatly reduced the time required to both transfer batches of data to the Central Processing Center from region/district offices, and transfer batch posting reports to region/district offices from the Central Processing Center

For both the hardware and the software supporting GSTACS, the chain of events leading to what GSTACS is today are both numerous and intricate, requiring considerable explanation to provide a complete picture Nonetheless, several key events are identifiable which, taken together, provide a good overview of GSTACS development Exhibit VI-3 presents these events chronologically to give the reader a sense of the overall scope, breadth and timing of the Sales Tax Department computerization effort Dates are approximated for illustrative purposes

There were 45 district offices at the outset of the project, and 60 by the time of its close The project installed computer systems in the 45 district offices that existed at the time the project began, because some districts are closely located to one another, these 45 systems have been able to support all 60 of the existing district offices

With its own funds, the Department has now purchased 15 computer systems for installation in the fifteen district offices that now share computer systems While there were some initial compatibility issues between the existing GSTACS software and the Department-procured computers, those issues have been resolved so that installation can proceed The project has recommended that the Department establish and implement a schedule for these installations

SCOPE OF COMPUTERIZATION

GSTACS System Architecture

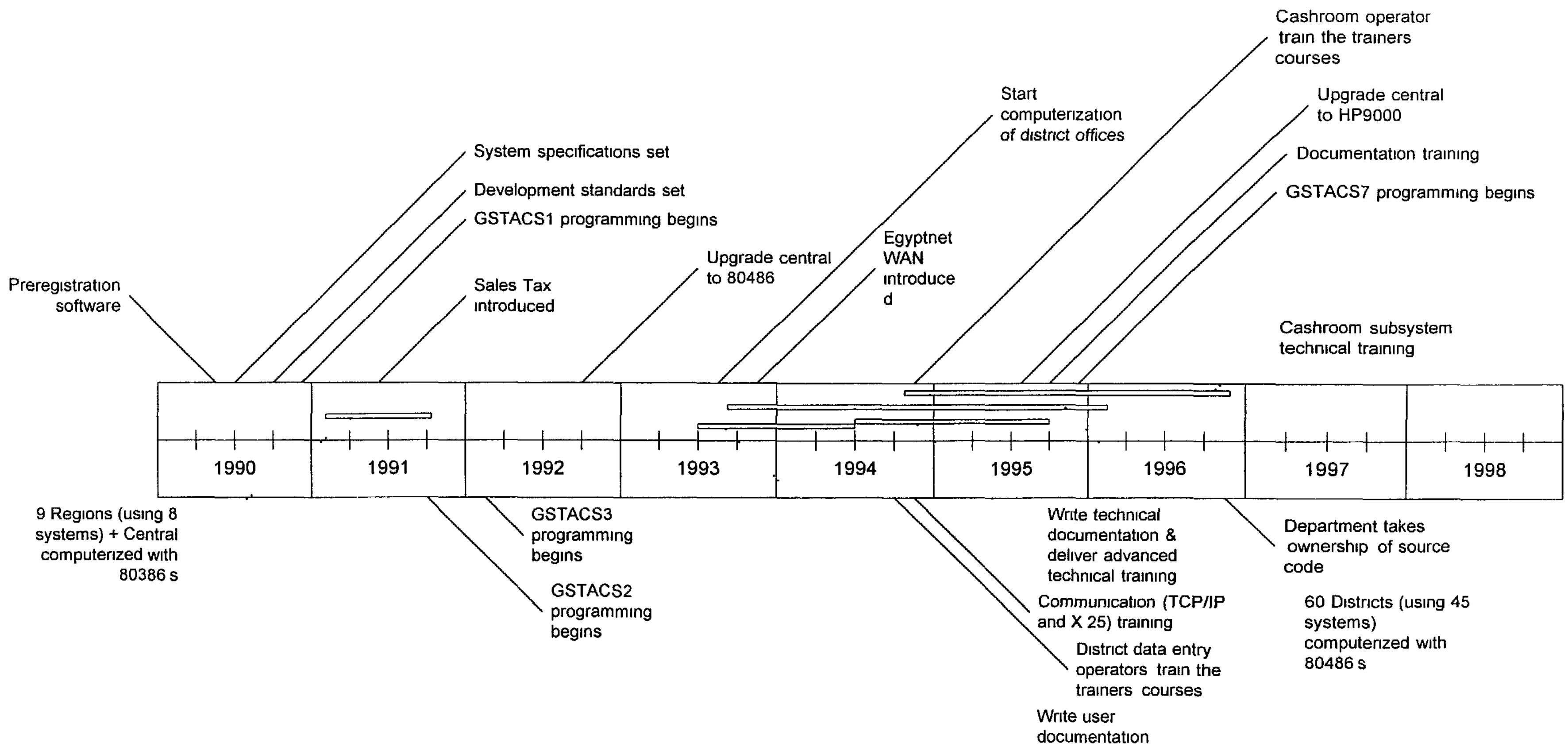
In 1991 GSTACS was first implemented to serve a hierarchy of 8 regional offices and 45 district offices, which in turn served the needs of between 30,000 and 40,000 tax collecting registrants At that time, the communications infrastructure was very weak, and so a *reliable* method to electronically transfer data from office to office was simply not available District office officials prepared data input forms and submitted them in batches to their district data control unit The district data control units assigned batch numbers from a batch control register and forwarded the batched input forms to their respective regional data input center At the regional data input centers, input forms were data keyed into GSTACS The electronically encoded data were regularly forwarded, *by diskette or magnetic tape*, from the regional data input centers to the Central Processing Center in Cairo for registrant account updating and report generation The printed reports, including posting reports, were sent back to the regional data input centers for subsequent distribution to their respective districts Based on posting reports, errors would be examined, corrected and rebatched Turnaround varied between same-day and several weeks, depending on the proximity of the offices, the volume of transactions, ease of access to transportation, and organizational inclinations

Today, the architecture of GSTACS bears a striking contrast with that which existed in 1991 when it was first implemented Over the years the system continued to evolve, and continues to do so, in an effort to keep in step with administrative changes and technological advancements At project close, GSTACS contains the necessary hardware and software to perform the following activities, by site type

- District Offices
  - ◊ Capture payments in a district cashroom and issue payment receipts,
  - ◊ Batch and capture other sales tax transaction data (tax returns, assessments, adjustments, etc) in the district offices,

138

EXHIBIT VI-3 MAJOR EVENTS IN THE DEVELOPMENT OF GSTACS



GSTACS1 Registration tax returns adjustments system validation
GSTACS2 Management and periodic reports
GSTACS3 Cashroom
GSTACS7 District office on line query

- ◊ Forward all captured transactions daily or as required, via wide-area network or physically on magnetic media, from each district to the central processing center for posting, and
- ◊ Perform on-line query of the centralized system from the districts to obtain current registrant status information, transaction details, and ledger statements

- ♦ The Central Processing Center
  - ◊ Posts transactions centrally and return posting reports to the respective district offices, via wide-area network or physically on magnetic media,
  - ◊ Prints over 30 periodic and MIS reports,
  - ◊ Maintains an internal system of checks and balances to ensure the system's integrity, and
  - ◊ Performs several diagnostic and maintenance functions to ensure continued system reliability

In addition, the Sales Tax Department is now engaged in several activities designed to provide additional features, including compliance control of tax returns for Table 1 commodities, additional tax computed separately for Table 1 commodities, a registrant audit selection subsystem, a debt management subsystem, registrant assistance information via a voice response system and over the Internet

The systems architecture reflects an early decision by the Department and the project team to follow a centralized approach to data processing that is, to have a single master file and data base, maintained centrally, and not to have separate master files and data bases in each district This was a critical issue, and one for which there is no "correct" resolution As Exhibit VI-4 shows, there were a number of advantages to each approach, and a set of trade-offs to weigh in making a final decision

After careful consideration, the Department agreed with the project recommendation to adopt centralized approach for two key reasons control and security It was much easier to control the introduction of computerization into the Department when most of the activity was taking place at one Central Processing Center Similarly, it was easier to preserve and secure against unauthorized access to sensitive tax data when it was contained at one site

Systems Software Development

The broad objectives established for GSTACS at the time of its design included the following

- ♦ To provide efficiently and economically a database to enable the Department to achieve its goals of maximizing revenue collection and registrant compliance,
- ♦ To allow for effective control and efficient processing of returns,
- ♦ To provide statistical data to be used in making decisions on fiscal and economic policy, and
- ♦ To provide performance statistics for management information purposes

Exhibit VI-4

Comparison of Central and District Database Approaches

Task	Central Advantage	District Advantage
Registration-based keying and posting	♦ Master file is more secure, ♦ Best control over tax account number assignment, and ♦ No difficulties with registrant movement between districts	♦ More timely additions, modifications, de-registrations, re-registrations, and telecommunication not critical
Transaction-based keying		♦ Minimal paper flow between data centers
Transaction-based posting	♦ Simplest reprogramming for system change, ♦ No difficulties with registrant movement between districts ♦ Least-cost supply of peripherals, such as high-speed printers for high volume output, and ♦ More secure and integrity easier to maintain	♦ Smaller files to maintain, telecommunications not critical, ♦ Encourages responsiveness to errors, ♦ System is controlled by those who know it best, and encourages pride of "ownership"
District report generation		♦ Smaller files imply quicker report generation, and ♦ No delay in receiving reports
Country-wide report generation	♦ Only place it can be done	
District on-line facility		♦ Easiest, least-cost access to local queries, and ♦ No telecommunications for ledger statements

To achieve these objectives, it was clear that the database itself should include details of all registrants, be capable of being continually updated, and be used in the daily overall administration of the tax system The system generally would need to provide for direct access by district offices so that they could use the system to effectively control administration and it would need to be portable, that is, run on industry standard platforms The GSTACS also was to allow for, or include

- Links to a network (i e , Egyptnet) for data communications, with security over such communications,
- Enhanced memory, storage and response time based on growth of the database,
- Extendibility in the number of work stations and printers at each site,
- Passwords for system log-on at the application level, and user-restricted access at the function level,

- File backup procedures,
- Hardware and software operational registers (log books),
- Archiving of files for off-site storage,
- Recovery procedures during on-line systems crashes, and
- An operational plan for data sites in the case of data communications failure

In addition, it was required that GSTACS operate entirely in the Arabic language, a condition that required a considerable amount of effort and resources to achieve Over the years, there have been several competing "Arabization" methods available for the Xenix and Unix operating systems Some required the purchase of proprietary hardware while others were available as off-the-shelf software Each had characteristic and individual strengths/weaknesses in terms of price, performance reliability, upgradability, and after-sales support Each had to be assessed on its relative merits

In 1990, when system design commenced, the project team chose a software-based Arabization utility, which proved highly reliable and suitable for the intended purpose, though it did require a high front-end investment in time and learning to test and adapt the software to the intended environment Over the years, as new hardware and operating software were introduced, accommodation had to be made to support each, which sometimes took extended lengths of time to achieve Therefore, the project team had to continually review and reevaluate available Arabization solutions whenever a purchasing decision was to be made As a result, in 1998 the project team was recommending a proprietary set of hardware as the optimal Arabization solution The hardware solution recommended terminals and printers that have built in character sets

Stages of GSTACS Software Development

The inputs to the GSTACS system are derived from the following sources

- Registration forms,
- GST tax returns,
- GST payments,
- Enforcement/audit action forms,
- Database maintenance forms,
- Assessments,
- Account adjustments, and
- Status forms

To deliver a complex software product within a short timeframe (i e , being ready for use when the tax was introduced), GSTACS was developed by the project team and installed in functionally incremental stages, with priority given to those functions that were required sooner The stages of GSTACS software development are presented in Exhibit VI-5

Exhibit VI-5
Stages of GSTACS Software Development

Stage	GSTACS Software Development
1	Preregistration software, to support registration Development of the Tax Administration Number and the master file
2	Software for processing tax returns and associated payments, in parallel with stage 1 software to support the ongoing registration activity
3	Software to support batch processing, menu structures, passwords, tape transfers user profiles, access control, and other protocols
4	In Stage 4, and thereafter, a validation subsystem was also developed to detect imbalances in the GSTACS system
5	Software to support the processing of assessments, the transfer of returns and payments data that were improperly classified, the entry of manually assessed additional taxes and a variety of miscellaneous transactions
6	Software to support automated detection and correction of imbalances within GSTACS
7	Software to support various operational, processing, statistical, and MIS reports (i e , GSTACS2 Reports Subsystem)
8	Software for the capture of all types of payments received by the district office cashier (i e , GSTACS3 Cashroom Subsystem)
9	Software to support Egyptnet transfers of data and reports between the district offices and the central processing center
10	Software for on-line query of the central database by district offices (i e , GSTACS7 Query Subsystem)
11	Software for a computerized Audit Selection & Control Subsystem (GSTACS4) and for a computerized Debt Management Subsystem (GSTACS5)
12	Software to support Table 1 commodities (GSTACS6)

The stages of software development presented in Exhibit VI-5 are relatively self-explanatory, but stages 8 and 11 warrant further comment, because these subsystems were developed using a collaborative effort between the project team and Departmental staff

Stage 8 The *Cashroom Subsystem (GSTACS3)* was developed by project team staff, but with considerable input and assistance from Department ADP staff This system automated the following district office functions

- Capture of all payments (including stamp duties, transport license fees, and other payments not used by GSTACS) made in district offices,
- Printing of payment receipts,
- Reports on cash and check balances,
- Printing of cash and check listings,

- Creation of payment batches for payments received for transmission to the Central Processing Center,
- Recording of historical payment data, and
- Creation of deposit slip and related documentation

Stage 11 In 1998, the Department completed development of the *Computerized Audit Selection & Control Subsystem (GSTACS4)* This system records the results of audits, tabulates statistics on those audits, and on the basis of these statistics and built-in credibility checks, selects for audit those registered businesses that are most likely to be proved non-compliant The *Debt Management Subsystem (GSTACS5)* was also developed by the Department and completed in 1998 This subsystem will monitor outstanding claims against registered persons and allow the Department to prioritize effectively its collection activities

In the early stages of GSTACS development, the project team assumed responsibility for *all* development work because the Department's APD unit was just being established There was a recognition, however, both by the project team and Department leadership, that the Department's data processing unit needed to move in the direction of operating independently and effectively over time The sales tax laws and technology were themselves ever changing, which meant that the ADP unit needed to be able to not only operate and maintain GSTACS, it ultimately needed to be able to modify the system to address the broad range of potential additional requirements that were expected to emerge Participation in subsystem development and installation proved an extremely effective method of institutionalizing advanced computer skills and GSTACS expertise within the Department

The project team did propose to develop a *Management Control System* to support the Department's financial, payroll and administrative management and provide the foundation for work reporting and evaluation USAID was not prepared to fund this development, as it did not relate directly to administration of the GST, but the project team was involved in supporting departmental development of a Financial and Administrative System (FAAS) This involvement included the production of a long-range plan on the interface of the FAAS and GSTACS systems and technical advice to the FAAS development teams

It was always intended that GSTACS and related subsystems be institutionalized in Department operations, and the Department was ultimately to assume responsibility for the operation, maintenance and development of GSTACS As such, the project team has provided extensive documentation for GSTACS Documentation was a significant on-going task throughout the project, with over 3,700 pages being produced in one language (i e , exclusive of the additional pages of documentation where it is available in a second language) The complete and comprehensive documentation series includes what is presented in Exhibit VI-6

All the above documentation has been transferred to the Department In addition, the project team has transferred to the Department the GSTACS source code, screens and utilities, and has delivered several months of hands-on training in the use of documenting tools and techniques

Exhibit VI-6
GSTACS Documentation

Document Name	Page Count	Available in English?	Available in Arabic?
Version Control Log	5	X	
Requirements and Specifications	250	X	
GSTACS User's Manual	575	X	X
Cashroom Subsystem User's Manual	425	X	X
Cashroom Subsystem Technical Reference Manual	200	X	
GSTACS Technical Reference Manual	1,100	X	
Posting Report Error & Warning Messages	120	X	X
Ledger Statements Manual	40	X	X
Quick-Reference Data Input Manual	35	X	X
Assessments Manual	25	X	X
On-Screen Error and Warning Messages	250	X	X
Documentation Tool Manual	15	X	
GSTACS Configuration Management Plan	30	X	X
GSTACS Design Architecture and Systems Plan	135	X	
Data Communication Plan	70	X	
Media Transfer Options	5	X	
Additional Tax and Ledger Statements	25	X	X
Development Standards Reference	35	X	
Quality Measures Handbook	75	X	X
Data Entry Training			
Trainer's Guide	45		X
Data Entry Course	70		X
Data Entry Workbook	135		X
System Operator's Course	50		X

The scale of the joint Department/project team achievement in creating and implementing GSTACS is illustrated by the statistics for transactions From having no automated facilities what-so-ever (when the sales tax was introduced), the Department was able, between May 1991 and December 1997 to capture details of 42,000 registrants (which includes 4,000 de-registrations) and process about 3 million transactions, including

- 1,200,000 tax returns,
- 753,000 payment transactions,
- 253,000 assessments/reassessments/default assessments, and
- 800,000 status transactions

The current menu structure of the GSTACS system is presented as Appendix VI-A, Section 4, and graphically illustrates the extensiveness of the product A complete listing of GSTACS features, outputs, and processes is presented as Appendix VI-A Sections 1-3

Data Communications

1 Data Communications Network

From the outset, the GSTACS architecture encompassed a data telecommunications network that would link the districts, regions and central ADP offices Once the GSTACS system was substantially far along in development, and the basic functionality that was needed, the project team began preparing a specific plan for networking the district offices to the Central Processing Center computer The Central Processing Center is located in Nasr City (a Cairo suburb) and the district offices are located throughout Egypt A Data Communication Plan for the Sales Tax Department was produced and delivered to the Department in April 1994 The finished document ran to over 60 pages and covered the current communications infrastructure in Egypt, results of project team pilot testing of data transfer and project team recommendations The report also outlined important considerations for the Department on budget and cost considerations, training issues, the actions necessary for successful implementation, and probable problem areas

The Department's short-term requirements were for simple data transfers via data communication links between the district sites and the Central Processing Center, a requirement that did not necessitate high speed communication capability Looking further into the future, however, it was clear that the Department will require more advanced features, such as on-line transaction processing (OLTP) OLTP will provide the Department's field sites with real time GSTACS master file access in the form of queries, additions, updates and deletions However, OLTP demands faster data communication speeds than do data transfers alone

At the Department's request, the project team researched, tested and evaluated the data communication choices available within Egypt It was discovered that the choices available were quite limited and centered around the services of Egyptnet, which is part of the Arab Republic of Egypt's National Telephone Organization (ARENTO) For the Department's immediate needs, Egyptnet's X 25 packet-switching service was the only feasible choice, with reasonably priced service connections to Cairo, Suez, and Alexandria No service was provided to Central and Upper Egypt Although the Department's plans for the future use of OLTP will require faster communications speeds than Egyptnet is currently able to provide, the service is not likely to change in the immediate future

For communications and programming, the project team therefore proposed that the Sales Tax Department adopt the following communications, planning strategy and implementation recommendations

- Communications
  - Use Egyptnet's X 25 packet-switched network for data communications
  - Use Eicon Technology hardware and software with TCP/IP
  - Connect Alexandria and Suez to Egyptnet
  - Select an approach for linking additional offices to Egyptnet
- Planning Strategy
  - Select a strategy for upgrading computers at previously installed sites

146

- ◊ Prepare a data backup and data control plan
- ◊ Implement a separate plan for Central and Upper Egypt's data collection
- ◊ Develop an in-house support and maintenance team
- ◊ Link sites gradually in carefully planned phases

- ♦ Implementation
  - ◊ Monitor and document network performance
  - ◊ Begin writing programs for GSTACS inquiries and reports
  - ◊ Conduct progress meetings that include key ADP people
  - ◊ Start monthly discussion and progress meetings that include key ADP people and users
  - ◊ Add technical staff members to the district, region and central offices

The ADP Department expressed an interest in exploring other network hardware options other than that of Eicon Technology shown above There was concern that the proposed network, which was designed to handle the low volume of data existing before extension of the GST to the retail level, might not be an optimum long-term solution The Department requested, and the project team provided, network designs that would be more appropriate as the number of tax registrants increased Three topologies were presented to the Department by the project team, representing network architecture that could handle low-, medium-, and high-data transfer rates (within the limits of Egyptnet's service offerings) The project team conducted extensive research into specific, high-speed hardware that could be recommended for procurement as the need arose Care was taken to ensure that all hardware was easily upgradeable to allow a gradual upward scaling of network handling capacity

The Department decided upon a version of the medium-speed topology designed by the project team The Sales Tax Department, with its own funds and using the technical specifications provided, submitted a request for proposal of communication hardware and software A vendor was chosen to do the actual physical installation of the network hardware and software Once the first pair of sites was operational, the project team, in conjunction with department engineers trained by the project team, conducted a full-scale test at the networked sites This test involved the GSTACS system, a newly created prototype subsystem to query remote databases, and a software interface provided by Informix The test proved that the network not only worked to specifications, but that the network could be easily and reliably integrated into the overall GSTACS system, giving the user remote data processing, querying, and reporting capabilities

2 Data Communications Training

Data communications technology was new to the Sales Tax Department There was little experience among the staff with designing, building, installing, and administering Wide Area Networks (WANs) To provide the required skill to the programmers and system engineers training was given on building networks and programming software for them Sessions in building networks covered the available technology and the possible difficulties encountered in establishing a countrywide network in Egypt The programming training was centered on enhancing GSTACS software to take advantage of the remote processing facility permitted by data communications

Industry standard software and hardware such as routers, modems, TCP/IP and X 25 were introduced and studied in the course of the training sessions A number of different configurations were also covered, as well as the pros and cons of each In addition, intensive hands-on training was given to selected ADP engineers Those receiving the intensive training were identified as the leading candidates for the role of network administrator All students satisfactorily completed the training After course completion, the engineers were tasked with building fully functional WAN prototypes using all the components required on the actual GSTACS network

3 Data Communications Future

As mentioned above, a Data Communication Plan was delivered to the Department in 1994 The plan defined all system requirements, considered the technologies available then, and proposed solutions based on the X 25 EgyptNet, which was the sole practical connection alternative at the time

While the use of TCP/IP allows any node (connection) to communicate with any other node (e g , between two district offices), the present networking architecture was built from the Communication Plan, wherein data flows occur between the Central Processing Center and the district offices Each connection has a modem and router using TCP/IP communication software Each office within Egyptnet's service area is connected via EgyptNet Those outside the service area require dial-up or dedicated communication lines, which are expensive and have not been installed The project has recommended that the Income and Sales Tax Departments cooperate in sharing these more expensive lines While each has agreed that the suggestion has merit, a joint decision to proceed has not yet been made

Currently there are 33 district-based Egyptnet nodes, some of which service two or three district offices that share one computer system While this technology has proven sufficient for requirements to date, the projected increase in the number of sites to be connected and in traffic flow, combined with the low speed X 25 connections, will unlikely be sufficient in the future

In November 1997, the project team reviewed the long-term requirements for a data communications network for the Sales Tax Department, and concluded that the X 25 network is slow and delay intensive and will be a problem in the future with the projected increase in the registrant base Alternative connection options were advanced, including a recommendation that the Sales Tax Department establish a private network for its own use (i e , network switching and operations resources, but still using the transmission lines provided by ARENTO) This solution would bypass the relatively inefficient X 25 network The recommended enhancements for the communication network would

- Improve network response time between district offices and the Central Processing Center,
- Allow for substantial growth in data exchange between sites,
- Improve network reliability and availability to users at all levels,
- Provide peer-to-peer communications among all sites,

146

- Provide for Intranet capabilities to all sites for organization information dissemination forms down-loading, and bulletin board announcements,
- Provide for an organization Web-site and Internet access to all sites, and
- Provide for high-speed connections and data retrieval to/from the Customs and Tax Departments

Transfer of GSTACS Technology to the Department

As noted previously, in the early stages of GSTACS development, the project team took initial full responsibility for all software development work because the Department was initially lacking in computer expertise As such, the project team recognized the importance of engaging an effective method for reversing roles, whereby the acknowledged development leader switched from the project team to the Department

The project team worked with the Sales Tax Department to draw up a comprehensive schedule of required actions to ensure full and successful transfer of responsibility for GSTACS to the Department The schedule included full task analyses, assigned responsibilities and identified milestone events It included hardware and software procurement, the preparation of accommodation for computer hardware, organization of the Central Processing Center, staffing of all centers and a detailed training plan for the centers' staff Highlights of this effort included the following

- In order to provide the necessary technology foundation for the ADP staff who would be operating the GSTACS system in the Central Processing Center, the regional offices and the district offices, extensive classroom training This training (which was provided to Tax Department personnel as well) included
  - *Software developers* Approximately thirty software developers received training in fundamentals of SCO UNIX, UNIX Shell Programming, Informix-SQL Fundamentals, and Informix Database Management
  - *District Office Operators* Training was provided to approximately 80 district office operators by the vendor who was selected for the procurement of the first 50 district office computer systems This training consisted of an introduction to computers, fundamentals of SCO UNIX, and SCO UNIX systems administration Similar training was provided to 350 operators by the second procurement vendor at the time that 220 systems were procured
  - *Training* The vendor who provided the upgrade computer system for the Department provided advanced training in use of UNIX System including Operating Systems Concepts, UNIX System Tuning, Advanced Informix-4GL, Informix-4GL, Forms and Menus, and Arabix
- Over the course of 15 months, in excess of 120 classroom hours of advanced GSTACS technical training were delivered on a weekly basis by the project team Computerization advisors to a group of 17 individuals comprised of ADP system administrators systems analysts, and programmers Such weekly training was given in a classroom environment, but included practical homework assignments The course analyzed all aspects of GSTACS from

both a design and coding perspective with those participants who successfully completed the course receiving a certificate

- Collaborative efforts in subsystem development between the Department and the project team were employed to encourage Departmental ownership and develop confidence in making system modifications
- Counterparts were nominated from amongst ADP staff to work closely with the project team To maximize the effectiveness of this technology transfer method, selected Department staff worked in the project office on a daily basis
- In December 1996, the project delivered custody of the GSTACS source code to the Department, giving the Department primary responsibility for future GSTACS development, while allowing ample time for overlap with the project team
- Intensive hands-on and classroom training was given to ADP engineers in the area of site preparation, hardware installation, system software installation, and network setup for Districts and the Central Processing Center
- During the final three years of the project, several local project team staff worked daily in the Department to provide technical advice and support and on-the-job training on an as-needed basis
- The project team worked closely with ADP management in preparing a plan to facilitate longer-term planning on future upgrades to hardware and software for the Department
- Extensive training was completed, both in the Central Processing Center and in the district offices on the structure and use of the Cashroom Subsystem, as it was implemented in the district offices over approximately a two-year period

In addition, to provide continuing support to the Department after the project concludes, the project team has recommended, and Department leadership is considering, retaining some of the project team's local staff on an employment or consultancy basis Because these staff have considerable GSTACS expertise, this would be highly desirable and benefit the Department greatly

System Procurement

Support to the Department through major USAID-funded procurements was a major element of the project The project team worked with the Department in determining the requirements for each of the several separate procurements that was undertaken and then took the lead in getting bids and executing the procurements, consistent with USAID guidelines [25]

[25] For a fuller description of the process through which project procurement priorities were established and approved under the project see Chapter VII

1_0

1 Central Processing Center

GSTACS was developed with an eye to the future, using commonly available open-system hardware and software The systems structure included

- The popular 80x86 (i e , "PC") processor family, which is readily upgradeable as technology advances, and can be easily maintained,
- The powerful UNIX operating system (to provide multi-user capability) and an "open" system standard that would allow for the use of a variety of vendors' computer equipment for and future expansion, and
- The advanced and extensive Informix 4GL (fourth generation language) database product family that provides the advantages of rapid application development and application portability as well as the power of a relational database system with structured query language (SQL) capability

A most important consideration was the need to provide for automation of the regional computer offices and one Central Processing Center within the limits of the project budget The products procured were widely used and of a proven technology The power of the technologies and their complexity necessitated rigorous and exacting installation and tuning procedures to ensure the products worked together efficiently and effectively This took on even greater significance as the various technologies advanced In addition, the GSTACS, which operates entirely in Arabic, required Arabix (IMT Multilingual Systems Inc) arabization software, which further complicated the planning, development, and installation process

As noted above, the first stage of computerizing the Sales Tax Department involved the creation of a Central Processing Center and the computerization of the regional offices District offices sent paper batches of data to their regional office, which in turn provided data entry and validation of tax returns After data entry, batches were transferred in a controlled manner via quarter inch cartridge (QIC) tape or floppy diskette to the Central Processing Center, with the tape/diskette subsequently being returned to the region with status records confirming that the batches were processed at the central processing center Registrant ledger accounts were maintained, and reports generated, at the Central Processing Center

The original procurement, based on a small registrant population base, was for microcomputers with 80386 processors for the Sales Tax Department's Central Processing Center and the regional offices The configuration for each of the microcomputers was eight megabytes of memory and a 330-megabyte hard disk drive These machines were installed with the XENIX operating system and Informix 4GL 1 10 In 1993, the central computer system was upgraded to an 80486 microcomputer with 16 megabytes of memory and a one-gigabyte disk drive

By late 1995, GSTACS was installed and running in 43 district offices under SCO UNIX 3 2 4 and Informix 4 10, and two further districts were automated in January 1996 The project team was also preparing a data communications network plan that the Department was eager to use as a basis for linking the district offices to the central processing center using an Egyptnet X 25 communications link At the time, the project team calculated that ten gigabytes of RAID disk (Redundant Array of Independent Disk) would sufficiently support the Department's

151

requirements and allow for expansion These assumptions were used in developing estimates of budget and configuration requirements to upgrade the Central Processing Center system

However, concurrent with the procurement planning process for the new system, the (GoE) began to crystallize its plans for extension of the sales tax to the retail level The proposed extension of the tax had major implications for the size of the computer system to be procured and the GoE and USAID asked that the Central Processing Center specifications be amended to allow for additional disk capacity, more terminals, and a higher performance (i e , TPC-C benchmark) rating Revision of the procurement specifications delayed the procurement process

The GSTACS application, like most applications, is sensitive to changes in any one of its component parts software, hardware, operating system, database and other tools in an open system environment The new system had to include new hardware and upgraded system software (UNIX, Informix, and Arabix), that created potential problems in porting the GSTACS application to the new system The hardware architecture is a multi-processor system supported by a RAID disk subsystem The UNIX operating system and the Informix database were also upgraded to be compatible with the selected new hardware, and, in the case of Informix, to take advantage of the then emerging multi-processor technologies

In theory, the GSTACS application should not have been adversely affected by the introduction of any new component, given the project team's use of open system and portability standards However, experience had shown theory and practice to sometimes be at variance It was thus necessary to test the systems offered by potential vendors in order to verify that there were no hardware or software incompatibilities with GSTACS A baseline for performance over a range of 33 GSTACS activities was developed, with two systems being extensively benchmark tested by the project team's primary developer of GSTACS

As a result, the project procured an HP9000/800 G70 with dual 96 MHz PA-RISC CPUs and 64 megabytes of memory The disk storage is a 40+ gigabyte RAID This configuration has a HP-UX 712/60 Work station as a front end that is connected to the HP9000/800 G70, to serve as a console and to transfer data from diskettes to the main system The system has 16 terminals for data entry and queries The system software includes the HP/UX (Unix) operating system, Informix development products, and Alis hardware-arabized terminals and printer

In April 1998, to address technical shortfalls in the use of Informix software installed on the HP9000, the Department purchased the latest version of the Informix database management software and the latest version of Unix for the HP9000 The project team, ADP engineers and vendor successfully completed testing the new system software, with installation waiting for delivery of the software

2 Regional Sites

The 1991 computer procurement for the regional sites consisted of eight state-of-the-art microcomputers, containing 80386 processors, 8 megabytes of memory, and 330-megabyte hard disk drives Each site had up to six terminals based on estimating 1,000 registrants per terminal These systems ran using the SCO XENIX operating system, Informix 1 10 and Arabix 3 2 All

152

systems were upgraded in 1995 to SCO UNIX, Informix 4 10, and Arabix 3 4 (Arabix is a brand of arabization software)

The regional site computers were used for GSTACS data entry in the early stages of system development As each district office was computerized, as described below the need for regional office support of this function became unnecessary However, the project team recommended that the systems be retained in the Regional Offices as a backup in case any of the district offices within the Region incur a system malfunction, and it is noteworthy that the systems are still operational in 1998, although they are approaching the end of their useful life At the same time, the project team recommended a change in the basic function of the Regional ADP units, from one of data input site to that of a service center for the ADP units in the Region's district offices The aim was to use the more experienced computer staff at regional level to provide training, maintenance and support to the districts These recommendations were accepted by the Department and the project team worked closely with Departmental staff on initial planning and implementation of the change Over time, the plan lost its momentum, and project resources were not available to pursue the matter

3 District Offices

It was clear from the time of introduction of the sales tax that the administration required to support it would need to be fully automated There had been less than 3,000 manufacturers and two importers registered for the old Consumption Tax and the relatively small number of transactions had permitted the Consumption Tax Department to function with no automated capacity The new sales tax would have between 30,000 and 40,000 registrants at the manufacturing and import levels, with an estimated 250,000 registrants expected when the tax was extended to the wholesale and retail levels It would not be possible to process the resulting volume of transactions on a purely manual basis Nor was the use of paper batch processing at the district/regional office interface an adequate long-term solution

It was therefore determined that computer systems should be installed in each of the 45 district offices then planned or in existence The aim was that data would initially be input at district level, transferred by magnetic media, and processed at the Central Processing Center At a later stage, the introduction of a data communications network allowed transfer of information directly, by telecommunications link, between district offices and the Central Processing Center

The role of the project team was primarily to identify suitable hardware and software, procure the systems from a local vendor, and oversee the training and installation processes A major consideration throughout was the suitability of accommodation and other facilities at the sites where computers were to be installed Many offices were old and had poor electrical fittings and power supply The instability of the electrical current posed a serious threat to both hardware and needed to be grounded and regulated at each site Many offices lacked air conditioning, which in the Egyptian climate raised serious possibilities of heat and/or dust damaging the computer system Some offices lacked furniture and secure areas for housing the machines and all districts lacked trained computer operators for keying data Each and all of these factors threatened both the physical condition of the hardware and software and the vendors' warranties on the systems supplied

The introduction of computerization was a new phenomenon of which the Sales Tax Department staff had little if any, prior experience There were various units within the Department with responsibilities for bringing the district offices up to an adequate state of preparedness for installation

- The Department of Finance and Administrative affairs needed to refurbish office buildings and provide suitable office space, furniture, air conditioning and electrical supply This was done in conjunction with contractors to the Department
- The Personnel Department had to ensure that sufficient staff were available to input data
- The Training Center had to coordinate training for the district computer staff
- The Central Department of ADP oversaw the whole process and provided engineers to assist and inspect site preparations and installations of systems

The Sales Tax Department itself had also to liaise with the Ministry of Electricity to ensure suitable electrical supplies were available, and arrange with ARENTO and other offices to provide telephone lines and install equipment

Under these controlling factors, the installation program progressed very slowly as the Department faced serious difficulties in preparing sites to an acceptable standard, although progress gained momentum as the Department's technical expertise improved To ensure progress and adherence to standards, the project team was obliged to be actively involved at each stage of the computerization program Aside from actual procurement of computer systems, project team involvement included

- Training
  - Provided by the project team for engineers from the Sales Tax Department in inspection techniques, procedures and the use of forms for computer systems delivery and set up acceptance
  - Provided by the project team for Central ADP staff in system maintenance and troubleshooting
  - Coordinated by the project team and the Sales Tax Department, and provided by the vendor for district office computer operators and programmers
- Specifications
  - The project team assisted ADP engineers in selecting adequate space and locations for sites
  - The project team wrote a sample site specification document for use in preparing final specifications to the contractors preparing sites The sample document covered electrical supply and regulation, air conditioning requirements, security, working environment, furniture, computer and administrative supply requirements for each site (see Appendix VI-B)

- Inspection
  - ◊ The project team prepared a site inspection test list covering the items in the site specification document, with limits and ranges for acceptability
  - ◊ The project team provided coaching to departmental engineers in site inspection testing
  - ◊ Along with departmental engineers, the project team carried out physical site inspections
  - ◊ The project team assisted ADP engineers and contractors in solving problems found during inspections
- Delivery
  - ◊ The project team prepared procedures for taking delivery of vendor supplied systems, together with an inventory of hardware and software to be delivered and an extensive questionnaire form for use in testing whether the systems were satisfactorily installed and could be accepted
  - ◊ The project team designed and developed a computerized inventory system for tracking the status, location and number of systems delivered by the vendor
  - ◊ The project team assisted in the follow up and resolution of any post installment problems

Although the installation program took longer to complete than expected, all 45 computer systems were installed in district offices by January 1996 The installation schedule by year is shown below, including the eight computers installed in 1991 in the regional offices

Installation of Computers
Sales Tax Department Districts and Regions

1991	8
1992	0
1993	10
1994	22
1995	11
1996	2

At the close of the project, project funds were used to procure 15 new Pentium II computers These computers were designed to support the upgrading of processing speed and storage capability in the largest district offices

Future Work

Like any complex system, the computerization of the Sales Tax Department continues to evolve From both a tax administration and computerization perspective, there are challenges ahead that must be faced to ensure continued success and with them potential opportunities that should be explored

15

The number of registrants is poised to expand by some estimates, from 40,000 registrants to as many as 250,000 These numbers will have an unparalleled impact on the current administration resources, both human and machine

Over the years, and as budget constraints have allowed the project has frequently upgraded central, regional and district hardware, operating system software, and application software as it became available Nonetheless, and particularly within the regions and districts, the existing computer hardware and software is showing serious signs of age Aside from the expected more frequent breakdowns, the performance of this equipment will be challenged by the workload imposed by the increased number of registrants

Technological advances over the years have dramatically altered the foundations on which computer systems are built Today's systems are object-oriented, web-enabled, and based on a client/server model Highly centralized, batch based legacy systems are being reengineered to conform to this new paradigm to take advantage of improved maintainability, scalability and extensibility New tools are available that can ease and automate development, from strategic planning on through the entire development lifecycle to routine maintenance, including automated code generation

Recommendations for Future Work

Based on the above, the computerization of the Sales Tax Department can be improved by

- Planning and capacity-building through the upgrading of existing hardware and software,
- Reengineering the existing system to capture advantages of the new software technologies, including an Internet-style graphic-user interface,
- Continuing to encourage the Tax, Sales Tax and Customs departments to cooperate in the sharing of information (which builds on past project successes in encouraging a standard Tax Administration Number),
- Strengthen communication links between all department offices, which may itself require encouraging the financial cooperation among departments,
- Exploring alternative methods of increasing the speed of data collection, including the use of financial institutions as intermediaries,
- Maintaining an awareness of potential computerization pitfalls, including those of security and privacy, and
- Supporting the expansion of current development efforts, such as those of registrant assistance applications, debt management, and audit selection Note also that subsystem 7, On-Line Query, was developed as an operating model" to prove the technology and provide the Department with a framework for future development

To the Department's credit, and a reflection of successful technology transfer over the life of the project, the Department has designed the next generation of the GSTACS system and, as the project comes to a close, is planning ahead for the implementation of this system

156

COMPUTERIZATION OF THE TAX DEPARTMENT

BACKGROUND

The Tax Department initiated efforts to computerize its operations in 1980 Between 1980 and 1989 it had acquired with USAID financial support, a mainframe computer situated in the Central Department of ADP, and eight minicomputers, located in the branches of the Department of Tax Credit (then called "General Department of Representatives") which deals with the Discounts and Additions system The Central Department of ADP in fact grew out of the Department of Tax Credit, which comprised the Tax Department's entire ADP functions during the 1980s

Despite the acquisition of the mainframe and minicomputers, and the passage of much time, Discounts and Additions was the only area of departmental operations to have been computerized A great obstacle to progress had been the lack of an overall systems plan As a result, computerization work in the Department had been fragmented, lacked coordination and reflected more the priorities of the ADP staff than of Department's management While top management had given computerization a very high priority in principle, there was virtually no user involvement in the systems development effort Expensive hardware had been procured, but it was not well suited to the Department's needs, software had been developed without user involvement and without any long-term standards or structure in which to fit

A joint project team/Tax Department effort was launched to accelerate the introduction of computerized systems into tax administration This effort became an extremely high priority within the Department, and attracted, and needed top-level support in the Department and even from the Minister himself Major tasks associated with this effort included

- *Development of a long-term system plan* Failure to plan carefully can be extremely expensive, longstanding experience in the Tax Department supported this point
- *Development of master files* The introduction of computerization in any tax department's operations must begin with the development of a computerized master file containing information on the entire taxpayer population Efforts to create such a computerized file had begun late
- *Selection of a unique taxpayer identification system* Related to the above, a unique numbering system was needed for use in identifying individual and business taxpayers Existing numbering systems in the Tax Department were not adequate
- *Development and introduction of systems in the district offices* It was necessary to create systems that could be introduced relatively quickly into the district offices to support improved tax administration Development of systems to track the existing inventory of cases was already in the development stage, and a system to process payments and returns was planned

157

In Phase I of the project, the project team worked with the ADP to help coordinate ongoing efforts into an overall implementation plan for departmental computerization The plan had several stages

- *Stage I Case tracking* This system was to be installed in all district offices and was aimed at improving compliance by building an organized inventory of outstanding cases
- *Stage II Returns and payments processing* This system automated the processing of returns and payments in the district offices It was to be linked with the case tracking system to form an integrated system handling all elements of a taxpayer's accounts
- *Stage III Systems integration* While the initial effort was to focus on implementation at the district office level, the longer-term effort was to integrate all of this information into a single centralized system, with information on all taxpayers, resident in a master file in the central mainframe computer

The project team was aware that this approach was not a substitute for a well considered, detailed, written systems plan that would cover all of the following issues

- Clear statement of goals and objectives,
- Identification of environmental factors likely to impact on the systems,
- Definition of general user requirements,
- Identification of hardware and software,
- Estimation of financial and human resources,
- Projection of a targeted schedule,
- Definition of technical standards,
- Identification of required knowledge, skills and abilities of all personnel involved, and
- Identification of an appropriate organizational structure

SCOPE OF COMPUTERIZATION

Long-Term System Planning

The project team prepared a long-term systems plan, covering the issues identified as needing to be addressed, and designed to be implemented in the period to the year 2000 The plan described

- The Income Tax Administration Computer System (ITACS) design,
- The ITACS design architecture
- District, regional and central office ADP processing systems,
- Security architecture,
- Program management methodology,
- An overview of program areas and projects, and
- An implementation strategy

Not surprisingly, given that both systems need to operate in the same environment, the recommended ITACS architecture is very similar to that for GSTACS described above The

158

Systems Architecture Plan did not cover the Discounts and Additions system for two reasons The first was that at the time when the plan was prepared, the project team expected that its recommendations for the abolition of the Discounts and Additions system, or at least its major reform, would be accepted and implemented by the GoE The second was that the project team saw no wisdom in automating (or importing into ITACS the automation of) a system of tax collection considered to be fundamentally flawed and outdated

To supplement the long-term plan, the project team also produced a Configuration Management Plan Configuration Management (CM) described the practices and procedures set in place to establish a baseline information system definition and to control any and all changes to that baseline ITACS would result in a modern state-of-the art information system throughout Egypt, consisting of hardware, software, documentation and telecommunications components As time progressed, it would be necessary to implement CM to manage and control necessary changes to the system and to control unauthorized modification to the various components By using CM it was hoped to avoid the previous problems, and attendant costs, that had arisen from the absence of central management control of computerization efforts Conceptually, CM could be divided into four components

1 Identification of the ITACS and its parts,
2 Management of changes to the ITACS,
3 Reporting the progress and changes to the ITACS, and
4 Verifying ITACS quality

Diligent CM was expected to minimize the risks associated with

- Development and maintenance responsibilities being distributed across multiple functional organizations and offices,
- The simultaneous maintenance of an operational system and development of a future release of that same system, and
- Delegation of development to outside contractors

Quality Assurance

The project team had noted the lack of user involvement in computer system development and implementation and was concerned to ensure that the future quality of products delivered to users was satisfactory It therefore produced a Quality Measures (QM) handbook for use by both the Tax Department and Sales Tax Department central ADP staff The measures that the Handbook described and recommended were simply measurements made over time that would communicate vital information about the quality of work processes and the resulting products or services The quality measures process would involve the following

- Planning,
- Development of quality measures,
- Development of targets, and
- Implementation and reporting

The Handbook gave detailed descriptions and analysis of what was involved in each topic and the steps to be taken for implementation The project team recommended that the departments establish a unit charged with implementing and managing QM, which the Tax Department did The unit was to provide

- Orientation for project staff in quality measures concepts and the modernization process for developing quality measures,
- Assistance in customizing the quality measures process to meet the specific needs of a project, and
- Assistance in creating or verifying current and future work flows, setting priorities for customer needs, or developing project sub-objectives

The assistance could include training, consultation or facilitation of workshops

The project team provided quality assurance for all ITACS applications Master file, Case Tracking and Current Account card The project team performed rigorous testing on the initial master file application installed in three pilot offices The project team continued to provide quality assurance on subsequent applications and provided a Quality Assurance training seminar to ADP's Quality Assurance Department, a group created at the project team's recommendation

The project team provided quality assurance for the ITACS documentation and provided specific guidance in review sessions held with ADP staff Documentation utility software prepared by the project team was aimed at producing high quality technical documentation for ITACS applications and was presented to the Departmental ADP staff

ITACS Applications

The fact that the Tax Department had a central ADP unit in existence before the project commenced, meant that it already had experience and expertise on which to draw in implementing and developing ITACS The circumstances were therefore different from those prevailing in the Sales Tax Department Whereas the project team played a lead role in respect of GSTACS, its role in respect of ITACS was more an advisory one to the Tax Department's efforts Following the development of the Sales Tax Cashroom Subsystem, the project team did, however, play a major direct role in developing a similar system for the Income Tax Department

Tax Administration Number

Underlying all of the ITACS applications was the need to create a unique taxpayer identification number This requirement was the source of substantial project team work as noted earlier in this chapter, and ultimately resulted in the successful adoption of a single Tax Administration Number being agreed upon for use by all the revenue departments (See the prior discussion on this subject in this chapter)

160

Case Tracking

The Tax Department ADP took the lead in developing a Case Tracking Subsystem, with the project team supplying technical advice as necessary The Case Tracking Subsystem is designed for the purpose of permitting district offices to keep track of taxpayer cases through the various legal stages from assessment to final case closing The project team developed a "Case Tracking Requirements" document for the Department and helped its staff work on developing the system to meet the requirements thus defined In this effort, the Department ADP staff employed the standards published by the project team These were also the standards used for the Master File application The effort was characterized by close and continual meetings between the ADP staff and the project team and the use of Quality Assurance testing

The Case Tracking Subsystem is obviously an important management tool since it processes information from the returns, and gathers data at important stages of case processing, producing case status information for the district office managers For example, data from the taxpayer audit function or the appeals committee is captured in the system The subsystem permits management to query the status of cases giving the department the capability to provide enhanced responsiveness to departmental inquiries or taxpayer inquiries

Master File

Virtually all taxpayer information was recorded manually Furthermore, because most interactions between the Department and taxpayers took place in the district tax office, rather than through the mail, all taxpayer information was located in district offices The introduction of computerization in the Tax Department needed to begin with the development of a computerized master identification file of the taxpayer population In the Tax Department this would in effect mean one master file for corporate taxpayers and a second for individuals These would serve as the central core for integrating all other computer operations

Because virtually all records pertaining to taxpayers were kept in the district tax office, each district effectively had to have its own master file and computerized system However, full utilization of the potential benefits of computerization required the capability of compiling and analyzing nationwide taxpayer information This in turn required the availability of a unique taxpayer identification number

In terms of priority in developing master files, the project team recommended that while development on both individual and corporate master files should progress at the same time, priority should be given, where necessary to the corporate files, because corporate taxpayers were the source of greatest revenue

The creation of master files began at district office levels using existing file numbers as a temporary identification number The Corporate Offices were amongst the first to be computerized and to create computerized master files Once the Tax Department had decided upon a unique identification numbering system, this was allocated to those district offices that were already computerized and the local master files were duplicated centrally to form components of a national master file Cards were issued to taxpayers containing basic data and a machine-readable bar code The significance of the district being computerized was that

101

automation allowed districts easily to identify taxpayers with more than one file and file number thereby cleansing the district numbering system before any duplication was taken to the national master file Where district offices had not already been computerized, the central ADP allocated blocks of numbers to the districts, each block unique to the particular district These were then issued to taxpayers and when the district was computerized, and its records cleansed, the taxpayer data were taken to the national master file

The Tax Department master file was first developed under project team supervision and guidance It was first installed in the Cairo Corporate Office, and was subsequently replaced by a version incorporating the Case Tracking Subsystem The pilot installation was then expanded to Abdin and Kasr El Nil districts and thence after successful testing, to the rest of the Department

Current Account Card

The key unit in the district office collection process was the Current Account Unit and the most important document used by this unit was the current account card A current account card was opened whenever a tax payment was made or a tax liability assessed or determined The current account card system should thus have provided a reliable and usable tool for tracking taxpayer collection status In fact the difficulty of keeping all information in manuscript, on one card, the number of years for which taxpayer liabilities remained unsettled, and poor adherence to manual procedures meant that a multiplicity of current account cards might be prepared for the same taxpayer

The system broke down because of this multiplicity of cards, and the subsequent difficulties in reconciling liabilities and payments that it caused

The current account card was an important document that could be computerized relatively easily This subsystem keeps track of the taxpayer's payments, records previous year balances, and stores payment credits accruing from the Discounts and Additions System The system is installed in all district offices Computerization of the current account card obviously overcomes the problems of controlling and using data encountered in the manual system

The Tax Department appointed a team from its central ADP staff to develop a current account card application and the project team supported the team's efforts with technical advice and assistance including quality assurance testing The project team met frequently with the ADP staff and surveyed various district offices to ensure that the applications recommended by the project team met the needs at the offices concerned

Cashroom Subsystem

The project team members that developed the Sales Tax Cashroom Subsystem worked with the ADP system analysts to develop a similar system for the Income Tax Department The team worked closely with the users in collecting the initial requirements for the system, and the system developed for the Sales Tax Department was used as a base for the Income Tax Department's system

In the design phase, there was considerable cooperation support and interaction between the Income Tax ADP Department and the project However, during the development stage, the project team took a lead role since the Tax ADP Department lacked available programmers The Income Tax Department Cashroom Subsystem was completed and installed in the Investment Office as a pilot site at project close, with other pilot installations underway as noted in the previous chapter

Technical Assistance

As noted above, because of the Tax Department's prior experience with automation the project team's role was largely advisory, but nevertheless the project team was very active in supporting the Tax Department's efforts After developing the initial Master file Registration System and installing it in three pilot offices, the project team assisted the Tax Department in enhancing the Case Tracking Subsystem which departmental staff developed The project team also assisted development of the current account card application and provided advice as requested by the Department's computer specialists Advice and assistance included training seminars or courses on a variety of subjects, each related to one or other aspect of maintenance and development of ITACS Topics covered in training included

- Database design,
- Database administration,
- Configuration management,
- System development life cycle concepts,
- Visible Analyst computer assisted software engineering (CASE) tool,
- Quality assurance, and
- Power Point executive presentations

Documentation

The project team developed the user documentation for the initial Master file Registration System subsequent ITACS development was done exclusively by Income Tax ADP staff, with the project team assisting in the development of documentation This documentation included user guides for the Case Tracking and Current Account Card applications

Procurement

Because the number of district offices in the Tax Department was far larger than that in the Sales Tax Department (by 1995, around 240 compared to 45) the task of procuring and installing computer systems in the Tax Department was correspondingly larger The project team originally planned to procure and install 213 computer systems in district tax offices, but because of the number of new offices opened by the Tax Department, this total was increased to 215 The project team is using 2 machines for development

The systems procured for the district offices consist of microcomputers with 486 processors, 16 megabytes of RAM, and 500 megabyte to in excess of one-gigabyte Pentium disk drives The system software consists of a UNIX operating system, Informix 4 10, and Arabix, a software-based arabization utility

The regional sites have NCR Tower computers that were procured before the PFAP These systems consist of minicomputers with four megabytes of memory and 170 megabyte disk drives

The schedule for procurement and installation is shown below The first computer system was purchased in 1991 for the Department's ADP Sector, for use as a development machine Computer systems for three pilot district offices followed 1992 Over the following five years, a total of 213 computer systems were installed in the Central, branch, and district offices

Installation of Computers
Tax Department Central, Branch, and District Offices

1991	1
1992	3
1993	12
1994	51
1995	99
1996	30
1997	17

At project close an additional 15 Pentium II computers were purchased for the Department to upgrade the computer systems in the largest district offices

Data Communications

A Data Communications Plan was provided to the Tax Department detailing the project team's recommendations for networking of its offices It was similar to the topology recommended for the Sales Tax Department and stressed the best performance for the least cost within the framework of networking options available in Egypt

The Department's short-term requirements, as reflected in the plan, were for simple data transfers of master file data via data communication links between the branch sites and the ADP Department It was clear that these did not require high-speed communications In the future, however the Department will require more advanced features, such as on-line transaction processing (OLTP) OLTP will provide the Department's remote sites, branch and district offices, with real time ITACS master file access in the form of queries additions, updates and deletions However, OLTP demands faster data communication speeds than do data transfers alone

The ADP Department purchased modems from NCR NCR trained ADP engineers in communication connection and TCP/IP software use for the communication links The Department used X 25 Egyptnet for communications between the ADP Department and the branch offices in Cairo

For communications and programming, the project team therefore proposed that the Tax Department adopt a similar planning and implementation strategy to that of the Sales Tax Department The following is a list of the communications, planning strategy and implementation recommendations

- Communications
  - Use Egyptnet's X 25 packet-switched network for data communications
  - Use Eicon Technology hardware and software with TCP/IP
  - Select an approach for linking additional offices to Egyptnet
- Planning Strategy
  - Select a strategy for upgrading computers at previously installed sites
  - Prepare a data backup and data control plan
  - Implement a separate plan for Central and Upper Egypt's data collection
  - Develop an in-house support and maintenance team
  - Link sites gradually in carefully planned phases
- Implementation
  - Monitor and document network performance
  - Begin writing programs for ITACS inquiries and reports
  - Conduct progress meetings that include key ADP people
  - Start monthly discussion and progress meetings that include key ADP people and users
  - Staff members from the district, branch and ADP Department

Future Work

The Tax Department ADP Sector is a well-trained, self-sufficient unit that can continue to progress at a steady pace with its own resources However, recognizing the vast size of the Department, and the large amount of work that remains to be done in the Department there are a number of areas where future project support would be well directed These could include some or all of the follow areas of support

- *Central MIS* Whereas the Sales Tax Department adopted a centralized approach to systems development, computerizing the central and regional sites first, and then the districts, the Tax Department's strategy has been essentially the reverse (except for its work related to Discounts and Additions) The districts are being automated (with programs developed at the central site), with the objective of uploading information from the districts to a centralized data base in the future Technical assistance could usefully be provided in helping build this MIS
- *Telecommunications* Related to the above, the development of the networking infrastructure for the Department could be further supported by technical assistance and procurement The ability of the Department to introduce maintain, and share data from programs hinges on a viable and well-functioning telecommunications network system This is a highly technical area, and outside expertise (like that provided during the project) would benefit the Department significantly

- *Systems Development* At project close the Department is in the process of introducing the cashroom system, which will greatly improve the efficiency with which the payment system is administered in the Department This represents a major step forward and also highlights the benefits of inter-departmental coordination since this subsystem was originally developed for the Sales Tax Department Integrating this new software system with the Department's Current Account Card System is an important next step in the Department's systems evolution Further support to accelerating the implementation of this system Department-wide would be desirable

- *NT Systems* The trend today is for companies to move into client server environments At the beginning of the project the project team decided on a multi-user Unix environment which was popular then Unix is still a very popular system for networking to the outside world, but Windows NT is gaining in popularity In today's client server world all types of servers are connect together on common LAN networks

  The branch district offices can use the client server approach by connecting existing Unix servers with NT or Novell servers on a local area network Information can be shared over the network with the Unix and other servers in the administrative departments The project team recommends replacing the text-based terminals attached to the Unix server with PC workstations attach to a LAN with the servers The workstations would require a terminal emulation program to interface with the current texted-based applications of GSTACS and ITACS The same workstations can now access any Microsoft NT or Novell server on the network This gives the users the ability to switch from GSTACS or ITACS applications to administrative application on the other servers

- *Procurement* Hardware and software procurement for the Department would also help to accelerate the important modernization and administrative reform initiatives underway The project team has recommended that the older 486-computer system in the district offices be replaced by Pentium machines with more capacity As noted earlier, the project made a modest contribution to this effort by purchasing fifteen Pentium II computers for the department at the close of the project The 486 computer systems could be used as LAN servers in small to medium administrative departments Procurement of additional equipment for the ADP Department to support a variety of systems for administrative tasks such as help desk systems, program documentation, and system development for administrative systems (training, accounting functions, information sectors that require statistical data and reports, processing of personnel data, hardware and software inventory, and project scheduling)

COMPUTER TRAINING

Overview

During the life of the project, the training of computer and administrative office staff was extensive Computer operators were trained on UNIX operating systems fundamentals, UNIX system administration and computer operations Systems analysts and programmers were trained in database design and development, database administration, Informix SQL, and Informix 4gl Hardware and systems engineers were trained in site preparation and inspections, hardware and system software installation, and UNIX system administration

Those who worked with the GSTACS system and subsystems had extensive training This included both training courses for the technical personnel who would be responsible for maintaining and modifying the system and courses for users who would operate the system

The personnel using computer systems in the administrative departments were trained on DOS, Windows 3 1, Windows 95, WordPerfect, Quattro Pro, Microsoft Office products (Microsoft Word, Excel and PowerPoint), and various utility applications

Substantial training, particularly on the GSTACS applications, was provided directly by the project team professionals who had developed the system But substantial training was provided on UNIX, Informix, and other computer software by local firms, who were selected under competitive bid Often times, the procurement of these training services from local firms was combined with the procurement of computer hardware and software The sections below summarize the training that was provided directly by the project team and that which was procured from local firms

Training By Project Team

- *November 1990* In-house training course on Unix and computer operations given to 5 Central Computer center and 20 regional office operators
- *March 1991* In-house training of Sales Tax Department engineers on hardware setup and installation of Unix systems for the Regional Offices (3 days – 4 trainees)
- *April 1991* In-house training of Sales Tax Department Regional Office computer operators on computer operations on new computers for district offices (4 days – 15 trainees)
- *November 1992* Operator training course for Income Tax Department ADP support computer operators and Corporate office operators (3 days – 8 trainees)
- *May 1993* Training of Tax Department ADP systems analysts and programmers on Informix 4-GL (5 days – 12 trainees)
- *June 1994* Training of Tax Department ADP systems engineers on SCO Unix System Administration (4 days – 8 trainees)
- *July 1994 through September 1995* Training of Sales Tax Department ADP Department personnel on GSTACS (17 trainees)
- *August 1994* Training of GSTACS trainers (6 trainees)
- *October 1994* Training of Sales Tax ADP trainers on Cash Room system (5 days – 6 trainees)
- *November 1994 to May 1996* Sales Tax Cash Room System Training for cashiers at each installation of the system

161

Training Subcontracted to Local Firms

- *July 1993 and forward* The local firm, Orascom, was selected under competitive bid to provide a broad range of technical training to department professionals, in addition to providing 45 computer systems for district offices This training, and the number of trainees for the Sales Tax Department (STD) and Tax Department (TD), are shown below

	STD	TD
Introduction to DP and Fundamentals of SCO UNIX, UNIX for users	30	108
SCO UNIX System Administration	24	74
UNIX SHELL Programming	8	16
Managing informix database, Informix-sql, Informix 4gl, Informix 4gl workshop	8	16

- *April 1994 and forward* The local firm, Computek, was selected under competitive bid to provide training for 12 Tax Department personnel in the following areas
  - ◊ Arabic Word Perfect for DOS,
  - ◊ Microsoft Foxpro,
  - ◊ Quattro Pro and
  - ◊ Norton Utilities and Anti-virus
- *Sept1994 – Sept 1995* Computek was selected to provide 175 computer systems for district offices and to provide training for department personnel who would be operating these systems The training, which was provided in several different sites throughout Egypt, included the following

	STD	TD
Fundamentals of Computers	60	290
SCO UNIX Operating System	60	290

- *July 1997* Training was provided by NCR to three programmers from the Sales Tax Department s Audit Unit on Visual Basic, and advanced Visual Basic at NCR
- *March to May 1998* Training was provided to Sales and Income tax personnel on administrative applications and on Unix, again under competitive bid

	STD	TD
Windows 95, Word 97, Excel 97, PowerPoint	17	9
SCO UNIX Operating System, UNIX System Administration, UNIX SHELL Programming	4	14

168

YEAR 2000 COMPLIANCE

During the final extension phase of the project, a review was conducted of the Year 2000 (Y2K) compliance of the hardware and software being used by the departments for income and sales tax processing The five areas where Y2K problems could potentially exist were the computer hardware, the operating systems software, utility software, application software, and stored data Each of these potential problem areas was examined as part of the Y2K review The results are summarized briefly below

- *Computer hardware* The project team tested all makes of 386 and 486 computers that have been procured by the project and found that in all cases the hardware was Y2K compliant The only requirement for these systems is that on January 1, 2000, the new date will have to be manually entered into each of these systems If the user neglects to do so, the system will still run, but the user will see that the date displayed is not the correct date The IT units in both departments are aware of this requirement There is accordingly no need to replace any hardware, or components of hardware, to address Y2K problems
- *Operating Systems Software* The version of UNIX that is currently installed in the district offices of both departments is not Y2K compliant in its original form However, UNIX developed a "patch" that can be installed with this older version of the operating system that makes it Y2K compliant The project team acquired this "patch," worked with the departments to test it, and found that it did make the UNIX software Y2K compliant In the last three months of the project, the department IT staffs implemented this "patch" department-wide, so that by project end the UNIX operating system was Y2K compliant in both departments
- *Utility Software* Each of the Departments reviewed the utilities that are used on their respective systems, like the Norton Anti-Virus Utility, and concluded that none of these utilities posed a Y2K problem
- *Application Software* Application software is the major source of serious Y2K problems All of the tax processing software developed by both departments was done using four-digit years and therefore pose no Y2K problems
- *Stored Data* All dates in the processing systems created by both departments are stored as four-digit years Again, there is no Y2K problem
- Based on this review, it was concluded that the GoE, unlike many other governmental tax departments around the world, does not have a Y2K compliance problem with its tax processing software

169

APPENDIX VI-A

GENERAL SALES TAX ADMINISTRATION COMPUTER SYSTEM (GSTACS)

I GSTACS SYSTEM FEATURES

1 Arabic/English language operation (selected during installation and program compiles)

2 Menu-driven, user-friendly, contextual on-screen help

3 Extensive reference and training manuals (in English and Arabic)

4 Maintain a database of registrants The system will support the establishment of new accounts, account updates (i e , modifications), account de-registration, account reinstatement and account registration by registration number

5 Controlled assignment of registration numbers

6 Check-digits contained in registration numbers

7 Identify registered persons who should file periodic tax returns

8 Ascertain the registrants who have filed

9 Ascertain the registrants who have paid their GST

10 Ascertain the registrants who are entitled to GST refunds and have been paid

11 Automatic calculation of additional tax

12 Post the additional tax to the registrant's account in the database

13 Generation of defaulters lists that can be used by enforcement officers to contact delinquent registrants

14 Generation of customized reports as required by GST administrators

15 Transaction audit trails of all modifications of amounts due for any and all accounts, i e , no total fields can be updated without appropriate transactions being generated as an audit trail, even for adjustments to registrants accounts

16 Monitor compliance

17 Track payments

18 Provide management information

19 Provide "point-of-sale" (i e , cash office) entry of payment transactions

20 Automatic batching of payment transactions

21 Tracking of GST paid and due by period

22 Maintain history files with GST return and payment data

23 Multi-level security against unauthorized access to system

24 Multi-level support of users and access authorities system administrator, supervisor, clerical, etc

25 Extensive parameter-driven settings for system and users

26 Automatic system monitoring for overdue activities (e g archiving, system validation, etc)

II GSTACS OUTPUTS

1 Transaction posting reports

2 Ledger statements

3 Daily reports
   a) Posting to suspense
   b) Clearance from suspense

4 Periodic reports
   a) Non-filers
   b) Debit balances
   c) Credit balances
   d) Non-registrant payments
   e) Capital goods installments
   f) Statistical reports
      i) Rejected returns and non-filers
      ii) Tax returns
      iii) Masterfile balance statistics
      iv) Non/short-payers
      v) Non-registrants
      vi) Suspense payments
      vii) Customs payments
      viii) Reassessments
      ix) First assessments

5 Monthly reports
   a) Assessments
   b) Non-filer follow-up
   c) Non-payer follow-up
   d) Rejected and incomplete tax returns
   e) Two consecutive nil tax returns
   f) Two consecutive default assessments
   g) Suspense account for all regions/districts

6 On-demand reports (for a range of tax periods)
   a) Balances for a range of periods
   b) Non-filers for a range of periods

17

c) Rejected returns for a range of tax periods
d) Collections for a range of periods
e) Late filers

7 On-demand reports
a) Masterfile listing
b) Seasonality indicator list
c) Daily cash receipts
d) Suspense account by region/district
e) Non-registrants by region/district

8 Query reports
a) Query of masterfile
b) Query of batch control file

9 Other
Mailing labels

III MAJOR GSTACS PROCESSES

1 Automated system installation and configuration Batch control and editing facility for all inputs
a) Data entry/update/delete
b) Batch control totals for closure
c) Batch transfer
d) Verification following transfer
e) Batch posting

2 Generate/control registration numbers

3 Maintain registrants database (masterfile)
a) New registrations
b) Registration modifications
c) De-registrations
d) Reinstatements
e) Re-registrations

4 Tape/diskette/network transfer facility for
a) Transactions
b) Posting reports
c) Masterfile
d) Batch reconciliation
e) Batch series rollover

5 On-line, real-time central site network access from regions and districts for
   a) Ledger queries
   b) Masterfile queries
6 Tax returns
   a) Normal tax returns
   b) Incomplete tax returns
   c) Tax return transfers between tax periods
   d) Tax return transfers between registrants
   e) Automatic batching of tax returns
7 Payments
   a) Normal payments
   b) Suspense transfer payments
   c) Payment/credit transfers between tax periods
   d) Payment transfers between registrants
   e) Cashier subsystem capture of payments
      i) On-line capture of all payments (including those not used by GSTACS) made in the Cashroom
      ii) Payment listings printed by cashiers
      iii) Cashier uses system totals to balance and reconcile
      iv) System automatically batches transactions for transfer to the central computer for posting
      v) System creates deposit tracking information
      vi) Payment history for monthly payment reports
8 Assessments
   a) Default assessment
   b) First assessment
   c) Reassessment
9 Miscellaneous Financial Transactions
   a) Additional tax (manual)
   b) Refunds
   c) Dishonored cheques
   d) Non-registrant refunds
   e) Non-registrant payments
   f) Return reversals
   g) Payment reversals
   h) Refund reversals
   i) Additional tax reversals
   j) Write off

10 Miscellaneous Status Transactions
   a) Delete return received with errors
11 Indicators (flags)
   a) Seasonality
   b) Filing exceptions
12 Query masterfile by
   a) Tax Administration Number (TAN, formerly RIN)
   b) Name
13 Query batch control file by batch number
14 Automated additional tax transaction control
15 Automated small balance (debit and credit) transaction control
16 User-defined user profiles
17 Automated clean-up of partially posted batches
18 Maintenance of
   a) Printers
   b) Holiday list
   c) Office list
   d) Activity codes
   e) Tax return rates
   f) Additional tax rates
   g) Authorized users/passwords
   h) Tape archives for
      i) Tax returns (on request by system administrator)
      ii) Transactions (after a preset number of months default is 38)
   i) System control tables
19 System validation
   a) Validate system
   b) System diagnostics tools
   c) System repair tools
   d) Batch reconciliation with central processing center (monthly)
20 Batch series rollover
21 Produce exception reports based on specified criteria

IV GSTACS MENU STRUCTURE

```
GSTACS MENU STRUCTURE  -  REGISTER SUBSYSTEM

Level 1 ═ Level 2 ═ Level 3 ═ Level 4 ═ Level 5 ═ Level 6

─ Register ──┬─ New ───────┬─ Add ──────┬─ Existing
  (R/D)      │             │            └─ New
             │             ├─ Update
             │             ├─ Delete
             │             ├─ Print Validation
             │             ├─ Display
             │             └─ Close
             │
             ├─ Modify ─────┬─ Add ──────┬─ Existing
             ├─ Deregister ─┤            └─ New
             ├─ Reinstate ──┼─ Update
             └─ Reregister ─┤─ Delete
                            ├─ Display
                            └─ Close

─ Transaction Processing
─ Batch Processing
─ Query
─ Print
─ Transfers
└ Maintenance
```

AVAILABILITY (when exclusive)
(R) Regional Office
(D) District Office
(C) Central Processing Center
╞ Action is installation dependent (e g , FROM District TO Central)

GSTACS MENU STRUCTURE - TRANSACTION PROCESSING SUBSYSTEM

Level 1 — Level 2 — Level 3 — Level 4 — Level 5 — Level 6

- Register
- **Transaction Processing**
  - Returns
    - Normal
      - Add
      - Update
      - Delete
      - Display/Print
      - Create Batch
    - Incomplete
    - Transfers
      - Add
        - Existing
        - New
      - Update
      - Delete
      - Display
      - Close
  - Payments
    - Normal
      - Add
        - Existing
        - New
          - Standard
          - Mixed
      - Update
      - Delete
      - Display
      - Close
    - Suspense
    - Transfers
      - Add
        - Existing
        - New
      - Update
      - Delete
      - Display
      - Close
  - Penalties
  - Assessments
  - Misc Financial
  - Misc Status
  - Seasonality
  - Return Filing
- Batch Processing
- Query
- Print
- Transfers
- Maintenance

GSTACS MENU STRUCTURE - BATCH PROCESSING SUBSYSTEM

Level 1	Level 2	Level 3	Level 4	Level 5	Level 6

- Register
- Transaction Processing
- **Batch Processing**
  - Display Batch Contents
  - Close Batch
  - Transfer Batches To/From E-Net/Tape/Diskette
  - Transfer Mini-Master To/From E-Net/Tape/Diskette
  - Transfer Batches From Tape/Diskette To E-Net (R/D)
  - Verify Imported Batches (C)
  - Post Verified Batches (C)
  - Clear Bad Tape Transfers (C)
- Query
- Print
- Transfers
- Maintenance

GSTACS MENU STRUCTURE - QUERY SUBSYSTEM

Level 1	Level 2	Level 3	Level 4	Level 5	Level 6

- Register
- Transaction Processing
- Batch Processing
- **Query**
  - Masterfile
    - By RIN
    - By Name
  - Batch Control File
- Print
- Transfers
- Maintenance

GSTACS MENU STRUCTURE - PRINT SUBSYSTEM

Level 1 — Level 2 — Level 3 — Level 4 — Level 5 — Level 6

- Register
- Transaction Processing
- Batch Processing
- Query
- **Print**
  - Reprint Reports
  - Reports Received via the Network
  - Ledger Statements (C)
    - Single
    - For District
  - RIN Log Sheet (C)
    - Print
    - Reprint
  - System
    - Batch Status
  - Labels (C)
    - Select/Print
    - Define/Align
- Transfers
- Maintenance

BEST AVAILABLE COPY

179

GSTACS MENU STRUCTURE - TRANSFERS SUBSYSTEM

Level 1	Level 2	Level 3	Level 4	Level 5	Level 6
Register					
Transaction Processing					
Batch Processing					
Query					
Print					
Transfers	Transfer Data To/From Device				
Maintenance					

BEST AVAILABLE COPY

GSTACS MENU STRUCTURE - MAINTENANCE SUBSYSTEM

Level 1 — Level 2 — Level 3 — Level 4 — Level 5 — Level 6

- Register
- Transaction Processing
- Batch Processing
- Query
- Print
- Transfers
- **Maintenance**
  - User Profile
  - System Administration
    - Change Batch Status
    - Delete Unclosed Batch
    - Maintain Printers
    - Maintain RIN Ranges (R/D)
    - Maintain System Tables
      - Holiday List (C)
      - Office List
        - Region
        - District
      - Activity Code List
      - Tax Rates
      - Authorized User List
      - Deactivate User
        - Add
        - Update
        - Delete

(continued on following page)

181

GSTACS MENU STRUCTURE - MAINTENANCE SUBSYSTEM

Level 2 — Level 3 — Level 4 — Level 5 — Level 6 — Level 7

(continued from previous page)

- Tape Archive(C)
  - Tax Returns
  - Transactions
  - Initialize Tape
    - Cal Returns
    - Fisc Returns
    - Transactions
  - List Tape Contents
- System Control Table Table
- System Validation (C)
  - Clean Files
  - Transaction Subsystem Validation
    - Incremental
    - Complete
    - Diagnostic Tools
      - Bat Ctrl->Fin
      - Fin->Bat Ctr
      - Match Reversed
      - Unmatched Reversed
      - Multiple Liability Transactions in Tax Period
    - Repair Tools
      - Delete Posted Fin /Status Batch
      - Recompute a Masterfile Balance
      - Recompute All Masterfile
  - Registration Subsystem Validation
    - Validation
    - Diagnostic Tools
      - Register
      - Modify
      - Deregister
      - Reinstate
        - Bat Ctrl->Reg
        - Reg->Bat Ctrl
    - Repair Tools
      - Recompute a Masterfile Balance
      - Recompute All Masterfile Balances
- Batch Reconciliation or Batch Series Rollover
  - Batch Reconciliation (To/From)
  - District Office Batch Series Rollover (C/R/D)
    - Normal Rollover (R/D)
    - Receive Reconciliation Report and Key (R/D)
    - Forced Rollover (R/D)
  - Transfer Reconciliation/ Rollover From Tape/Diskette To E-Net (R/D)
    - Reconciliation
    - Rollover

BEST AVAILABLE COPY

182

GSTACS MENU STRUCTURE - REPORTS SUBSYSTEM

Level 1 — Level 2 — Level 3 — Level 4

- Reports
  - Daily
    - Posting To Suspense (GSR216)
    - Clearance From Suspense (GSR217)
  - Periodic
    - Non-Filers Listing (GSR020)
    - Debit Balances Listing (GSR030)
    - Credit Balances Listing (GSR032)
    - Non-Registrant Payments (GSR026)
    - Capital Goods Installments (GSR027)
    - Statistical Reports
      - Rej Ret & NF(GSR500)
      - Fil Stat (GSR505)
      - Tax Return (GSR510)
      - Master Bal Stat(GSR515)
      - Non/Short Payer(GSR520)
      - Non-registrants(GSR526)
      - Suspense (GSR530)
      - Customs Payments(GSR527
      - Reassessments(GSR535)
      - First Assess't(GSR540)
  - Monthly
    - Ass Listing (GSR021)
    - Non-Filer Follow-Up (GSR022)
    - Non-Payer Follow-Up (GSR030)
    - Rej And Inc Tax Returns (GSR025)
    - Two Cons NIL Tax Returns (GSR023)
    - Two Cons Def Ass (GSR024)
    - Suspense Account For All Regions/Districts (GSR218)
  - On Demand for Range of Periods
    - Period Balances (GSR105)
    - Non-Filers (GSR110)
    - Rejected Returns (GSR115)
    - Collections (GSR130)
    - Late Filers (GSR135)
  - On Demand
    - Master File Listing (GSR100)
    - Seasonality Indicator List GSP120)
    - Daily Cash Received (GSR125)
    - Suspense Account By Region/District (GSR218)
    - Non-Registrants By Region/District (GSR026)
- Maintenance
  - User Profile
  - System Administration
    - Maintain Printers

BEST AVAILABLE COPY

183

GSTACS MENU STRUCTURE - CASHIER SUBSYSTEM

Level 1 — Level 2 — Level 3 — Level 4 — Level 5 — Level 6

- **Cashiers** (D)
  - Payments
  - Balancing
    - Cash Balancing
    - Cheque Balancing
  - Query
    - Detailed Payments
    - Receipt Payments
    - Query by Name
    - Reprint Cashier Reports
    - Dishonoured Cheques
  - Cheque Payment Listing
  - Cash Payment Listing
  - Cheque Detailed Payments by Tax Period
  - Cash Detailed Payments by Tax Period
  - Close Daily Work
- Supervisors (D)
- Accounting (D)
- System Administration (D)

184

GSTACS MENU STRUCTURE - SUPERVISOR SUBSYSTEM

Level 1 — Level 2 — Level 3 — Level 4 — Level 5 — Level 6

- Cashiers (D)
- **Supervisors** (D)
  - Cancel Registrant s Receipt
  - Cashier Statistics Report
  - Report for Cancelled Receipts
  - Reprint Receipts
  - Change Payment Date
  - Close Out Cashier
  - Reopen Cashier
  - Cashiers Operating Status
  - Receipt Maintenance
    - Initialize Receipts for a New Month
    - Match Payments with Receipts
- Accounting (D)
- System Administration (D)

GSTACS MENU STRUCTURE - ACCOUNTING SUBSYSTEM

Level 1	Level 2	Level 3	Level 4	Level 5	Level 6

- Cashiers (D)
- Supervisors (D)
- **Accounting** (D)
  - Daily Reports
    - Cashier Summary
    - Daily Payments
    - Revenues
    - Deposit Preparation
    - Cheques
  - On Demand Reports for a Range of Periods
    - Deposit List
    - Dishonoured Cheques
    - Total Collections
  - Close Daily Accounts
- System Administration (D)

GSTACS MENU STRUCTURE - SYSTEM ADMINISTRATION SUBSYSTEM

Level 1 — Level 2 — Level 3 — Level 4 — Level 5 — Level 6

- Cashiers (D)
- Supervisors (D)
- Accounting (D)
- **System Administration** (D)
  - Create System Batches
  - Closed Batch Report
  - System Maintenance
    - Maintain Printer
    - Maintain System Tables
      - Deactivate an Active User
      - Maintain Authorized User List
        - Add a New User
        - Update a User

187

APPENDIX VI-B

COMPUTER SITE PREPARATION AND INSTALLATION

COMPUTER SITE PREPARATION

The project team and engineers from the tax departments prepared specifications for use in preparing offices in which computers would be resident The specifications took into consideration the following

Requirements for suitable office space for the computer and components

- Provide suitable furniture for the sites,
- Provide fire protection,
- Address the problems of electrical current instability,
- Address the problems of dust and heat,
- Address site security and
- Provide telephone lines

The project team and department engineers used the following procedures in the site preparation stage

- Select site for computer systems (inspection and acceptance by both project and department engineers),
- Prepare Request for Proposal for upgrading sites, based on requirements specifications,
- Evaluate bids from contractors,
- Select contractor for work
- Schedule department engineers to periodic site inspections during the contractor s work until competition,
- Upon completion, schedule inspection by project team,
- Project team inspects site and records inspection comments and notes on Site Preparation Inspection document,
- If problems exist, then a problem report is sent to the General Manager of ADP then the contractor is requested to correct the problems, and
- No problems exist, then the project team accepts the site and the site is now ready for installation of computer equipment

The project team members trained the engineers from the departments in using test equipment and general trouble shooting procedures to communicate problems to the contractors The project team had problems with the contractors adhering to the electrical specification but once the contractors realized the sites would not be accepted until all specification were met then they

193

constructed the site to specifications The strict site specifications have prevented computer system problems over the years Most machines installed since 1991 are still functional and this has been in large part to the strict adherence to site specifications

The most critical specification was for adequate electrical power These requirements included the following

- Three phase power source from the electric company,
- Dedicated feeder line from main building power box to the computer room breaker box,
- All power connections grounded,
- Power to all electrical outlets in the rooms stabilized, which required a main stabilizer after the breaker box These sites used 3 to 5 KVA stabilizers,
- Adequate breakers for power loads,
- Air conditioners on separate phases than computer equipment,
- Grounded electrical plugs for all computer equipment, and
- One electrical outlet for each piece of equipment

Each regional and district office computer site has a minimum of three rooms The rooms consist of a data preparation room, data entry room and computer room

Another very important requirement is to prevent the computer systems from overheating Computer equipment must operate in a dust free and cool environment The project team requirement was for each room to be air conditioned The main functions of the air conditioners are to cool the rooms and filter the dust from the air

The other specifications were that each room included availability of fire extinguishers, site security, adequate florescent lighting in each room, sturdy furniture, telephone line to computer room, and computer supplies All specifications were met except for the telephone line into the computer room The project team had to disregard this requirement, since it was impossible for the district office to get an additional phone line on timely basis Most district offices only had one or two phones for the entire office When problems existed in the computer center, the computer operator had to use a phone from another location

The project team and the department engineers prepared a Site Preparation Inspection Form to be filled out during inspection visits to the computer centers The project team tracked the site preparation by using a spreadsheet, which listed the site name, date of inspection, the date of acceptance or rejection and reason for rejection

COMPUTER DELIVERY AND INSTALLATION

After the site had been accepted by the project team and the department engineers then a delivery and installation schedule was setup up for the site The schedule listed the location, scheduled date of delivery, scheduled date of installation and the actual date of installation It was the responsibility of the vendor to deliver and install the computer systems at the site A representative from the project team and an engineer from the Tax or Sales Tax Departments was present during the installation After the vendor installed the computer system, the department engineer tested the computer system to verify that the system was working properly The engineer used an installation checkoff form to perform his test

The installation was rejected if the testing was not successful otherwise the installation was accepted by the department engineer The department engineer verified the following as having been delivered and installed satisfactorily

- All hardware components,
- All software with the original media (diskettes, tapes or CD-ROM),
- All software manuals and documentation,
- The operating system software, and
- The printer and terminals, in both English and Arabic mode

The project team representative recorded all hardware and software serial numbers to add to the inventory and prepare turnover letters for the hardware and software Also USAID stickers were placed on all hardware components

SALES TAX DEPARTMENT INSTALLATION

The Sales Tax Department installations begin in January 1991 with the installation of a system development computer system in the Central Processing center in Nasr City This system was used to test the GSTACS software at Nasr City before installation of software in the Sales Tax Regional computer centers The first regional site installed was at the Alexandria East and West regional offices in March 1991 All regional offices were installed by the end of September 1991 The development system was upgraded to a 486 computer in August 1992 The first district office to be installed was Heliopolis on 6 September 1993 The final installation of the 45 systems procured by the project was completed in January 1996

Figure VI-B-1
Sales Tax Department Region and District Office Installation by Year

Year Installed	1991	1993	1994	1995	1996
Number Installed	8	10	22	11	2

There were an additional 15 district offices that were opened and these new offices were added to existing computers in the districts The Sales Tax Department purchased computer systems for these additional offices The project also procured a total of 53 computer systems for administrative purposes that installed in the Sales Tax Department

Figure VI-B-2
List of Sales Tax District Offices that are Computerized

District Office	Vendor	Installation Date
Cairo North		
El Waily	Orascom	7 Sep 93
Nasr City (In East Region, but share with El Waily)		
Shubra	Orascom	22 Feb 94
Shubra Khaima (share Shubra)		
South Cairo Region		
Helwan	Orascom	6 Mar 94
Old Cairo	Computek	2 Feb 95
Saida Zeinab (share Old Cairo)		
East Cairo Region		
Nasr City (share El Waily)		
Heliopolis	Orascom	6 Sep 93
Salam (share Heliopolis)		
Zeitun	Orascom	20 Feb 94
West Cairo Region		
Kasr El Nil	Computek	2 Feb 95
Abdeen (share Kasr El Nil)		
El Zaher	Bull*	
North Giza Region		
El Dokki	Computek	14 Dec 94
Imbaba	Computek	14 Dec 94
South Giza Region		
El Haram	Computek	13 Dec 94
El hawamdeya	Computek	23 Jan 96
6th of October	Orascom	9 Sep 93
West Delta Region		
Tanta	Orascom	9 Nov 93
Sadat City	Computek	15 Dec 94
El Mahalla El Kubra	Computek	22 Dec 94
Kafr El Sheikh	Computek	12 Jun 95
Shebin El Kom	Computek	26 Oct 95
East Delta Region		
Benha	Orascom	23 Dec 93
El Zagazig	Orascom	22 Dec 93
10th of Ramadan	Orascom	24 Feb 94
El Mansoura	Computek	19 Dec 94
Mit Ghamr	Computek	18 Dec 94
Alexandria East Region		
Raml 1	Computek	21 Dec 94
Sidi Gaber (share Raml1)	Computek	21 Dec 94
Raml 2	Bull*	
Rashid	Computek	18 July 95
Damanhur	Computek	22 June 95
Alexandria West		
El Manshaiya	Orascom	7 Nov 93
Karmous (share El Manshaiya)		
Al Amiriya	Computek	21 Dec 94

191

District Office	Vendor	Installation Date
El Mex (share Al Amiriya)		
Marsa Matrouh	Bull*	
Canal & Sinia		
Ismailia	Orascom	20 Dec 93
Suez	Computek	8 Sept 94
South Sinai (Share Suez)		
Red Sea (shared Suez DO in Upper Egypt Region)		
Port Said	Computek	15 Sept 94
El Arish	Computek	2 Jan 96
Domyat	Computek	12 Dec 95
Central Egypt Region		
Faiyum	Orascom	8 Nov 93
Asyut	Orascom	10 Nov 93
Mallawi	Computek	18 Dec 94
Beni Suef	Computek	19 Dec 94
El Minya	Computek	19 Dec 94
El Wady El Gadid (share Asyut)		
Upper Egypt Region		
Sohag	Computek	11 Sept 94
Aswan	Computek	22 Sept 94
Luxor	Computek	22 Dec 94
Qena	Computek	04 Oct 95
Naga Hammadi	Computek	04 Oct 95
Tahta	Computek	05 Oct 95
Girga	Computek	05 Oct 95
Esna (processed in Luxor region)		
Red Sea (processed in Suez Region)		
Akhmim (Processed in Sohag region)		

* Purchased by the Sales Tax Department

TAX DEPARTMENT INSTALLATIONS

The first computer system procured for the Tax Department was a software development machine delivered in June 1991 to the Central ADP department This machine was used to develop systems for the district office

Computer systems for the first three pilot district office sites were delivered and installed in November 1992 Over the subsequent 5 years a total of 213 computer systems were installed in the Central, branch and district offices The table below shows the number of systems installed by year The tables that follow after that show the location and date of all the installations in the Tax Department branches

Figure VI-B-3
Income Tax Central, Branch and District Office installations

Year Installed	1991	1992	1993	1994	1995	1996	1997
Number Installed	1	3	12	51	99	30	18

192

CAIRO BRANCH (65)

Figure VI-B-4
Branch and District Offices Automated in the Tax Department

Cairo First		
Cairo Branch	Computek	27 Jan 97
Abdeen(Transfer ADP)	ACT	5 Nov 92
Abdeen	Computek	19 Sep 95
Kasr El Nil(Transfer ADP)	ACT	8 Nov 92
Kasr El Nil	Computek	19 Sep 95
Cairo Corporate (Trans ADP)	ACT	1 Nov 92
Cairo Corporate	Computek	23 Jan 97
Free Professionals	Computek	29 May 95
Egyptians Working Abroad	Computek	29 Nov 95
Collection Dept	Computek	2 Jun 96
Cairo Second		
El Manial	Orascom	19 Jul 93
El Manial (Cash Room)	Computek	17 Feb 97
Misr El Kadima	Orascom	21 Jul 93
El Saida Zeineb	Orascom	25 Jul 93
El Khalifa	Orascom	27 Jul 93
Government Offices	Computek	18 Aug 94
El Mouski	Computek	29 Aug 94
Bab El Shaaria	Computek	26 Apr 95
Cairo Third		
El Waily	Orascom	8 Dec 93
El Zaher	Orascom	8 Dec 93
El Darb El Ahmar	Orascom	13 Dec 93
El Gamalia	Orascom	14 Dec 93
Bolak	Orascom	15 Feb 94
El Asbakia	Orascom	16 Feb 94
Investment	Orascom	29 Mar 94
El Maadi	Computek	13 Nov 96
Cairo Fourth		
Cairo Stamp	Computek	28 Jan 97
Helwan	Orascom	2 Feb 94
15th of May	Orascom	3 Feb 94
El Basateen	Orascom	28 Mar 94
El Marg	Computek	29 Jan 97
Dar El Salam	Computek	19 Feb 97
Cairo Fifth		
El Sahel 1	Orascom	26 Oct 93
El Sahel 2	Orascom	26 Oct 93
Rod El Farag	Orascom	26 Oct 93
Rod El Farag (Cash Room)	Computek	18 Feb 97
Shobra El Khaima Awal	Orascom	17 Jan 94
Shobra El Khaima Thani	Orascom	18 Jan 94
Shubra	Computek	18 Aug 94

192

El Zawia El Hamra	Computek	12 Feb 95
Cairo Sixth		
Hedayak El Koba	Orascom	26 Jan 94
El Mataria	Orascom	30 Jan 94
Ain Shams	Orascom	31 Jan 94
El Khanka	Computek	22 Aug 94
Misr El Gidida 1	Computek	29 Aug 94
Zeiton 1	Computek	1 Sep 94
Zeiton 2	Computek	1 Sep 94
Misr El Gidida 2	Computek	20 Nov 96
El Nozha	Computek	19 Feb 95
Cairo Seventh		
Medienet El Salam	Computek	11 Aug 94
10th of Ramadan	Computek	22 Aug 94
10th of Ramadan(Cash Room)	Computek	6 May 97
Nasr City	Computek	22 Dec 96
Giza First		
Imbaba Branch	Computek	4 Feb 97
El Dokki	Computek	16 Oct 94
Al Agouza & Mohn	Computek	16 Oct 94
Giza 1	Computek	31 May 95
Giza 2	Computek	27 Oct 96
Bolak El Dakrour	Computek	28 Oct 96
El Omaria	Computek	30 Oct 96
El Haram	Computek	29 Oct 96
6th of October	Computek	04 Dec 96
Giza Second		
El Badrashien	Computek	26 Feb 97
Imbaba 2	Computek	31 Oct 95
Imbaba 1	Computek	13 Feb 95

194

ALEXANDRIA BRANCH (20)

Alexandria First		
Alexandria Branch	Computek	11 May 97
El Gomrok & El Mina	Computek	5 Sep 94
Menia El Basal & El Dek	Computek	5 Sep 94
Moharam Bek 2	Computek	5 Sep 94
Karmouz	Computek	6 Sep 94
El Laban	Computek	15 Jan 95
Moharam Bek 1	Computek	17 Jan 95
Alexandria Second		
Alexandria Stamp	Cancelled	
Atareen 2	Computek	6 Sep 94
El Manshia	Computek	7 Sep 94
Atareen 1	Computek	17 Jan 95
Alexandria Third		
El Ramlah Awal	Orascom	4 Apr 94
El Ramlah Thani	Orascom	5 Apr 94
El Montazah Awal	Orascom	6 Apr 94
El Monthzah Thani	Orascom	7 Apr 94
Alexandria Fourth		
Bab Sark Awal	Orascom	3 Apr 94
Sidi Gaber	Computek	15 Jan 95
Matrouh	Computek	2 Jul 95
Bab Shark 2	Computek	18 Nov 96
Government offices	Computek	4 Jan 95
Corporate 1	Computek	17 Nov 96

19

DELTA BRANCH (65)

El Behıera		
Kom Hamada	Computek	1 Jun 95
Rashıd	Computek	3 Jul 95
Damahour 1	Computek	17 Jul 95
Damahour 2	Computek	17 Jul 95
Damahour 3	Computek	17 Jul 95
Ietaı El Baroud	Computek	19 Jan 97
Kafr El Dawar	Computek	20 Nov 96
Kafr El Shıekh		
Kafr El Shıekh 1	Computek	12 Jun 95
Kafr El Shıekh 2	Computek	12 Jun 95
Baltıem	Computek	9 Jul 95
Fouwa	Computek	10 Jul 95
Desouk	Computek	10 Jul 95
Bıalla	Computek	6 Apr 97
Sedı Salam	Computek	16 Dec 96
El Gharbıa Awal		
Tanta Branch	Computek	2 Apr 97
Zıfta	Computek	14 Jun 95
Tanta 1	Computek	17 Jan 96
Kafr El Zaıat	Computek	25 Oct 95
Tanta 3	Computek	17 Jan 96
Basıon	Computek	12 Oct 95
Aga	Computek	15-Sep-97
El Gharbıa Thanı		
Mahalla El Kobra	Computek	20 Jun 95
Samanoud	Computek	20 Jun 95
Tanta 2	Computek	17 Jan 96
El Menofia		
Shıbeen El Koom1	Computek	28 Sep 94
Shıbeen El Koom2	Computek	28 Sep 94
El Shohodaa	Computek	19 Jan 95
El Sadat	Computek	5 Feb 95
Menof	Computek	11 Dec 96
Tala	Computek	15 Oct 95
Kewısna	Computek	15 Oct 95
Ashmoon	Computek	29 Oct 95
Berket Saba	Computek	28 Nov 96
El Kalıobıa		
Kalıob	Computek	25 Aug 94
Shıbeen El Kanater	Computek	25 Aug 94
Tookh	Computek	25 Aug 94
Benha 1	Computek	10 Jan 95
Benha 2	Computek	10 Jan 95
Kafr Shokr	Computek	12 Nov 96
El Sharkıa		
Bılbıes	Computek	12 Jan 95

176

Alwad Sakr	Computek	21 Feb 95
Kafr Sakr	Computek	12 Mar 95
El Zagazig 1	Computek	21 Sep 95
Menia El Kamh	Computek	20 Sep 95
El Hisinia	Computek	22 Oct 95
Diarb Negm	Computek	23 Oct 95
Abu Hamaad	Computek	10 Nov 96
El Zagazig 3	Computek	21 Sep 95
Faqus	Computek	22 Oct 95
Abu Kebir	Computek	11 Nov 96
Zagazig 2	Computek	6 Nov 96
El Dakahlia Awal		
Mansura 1	Computek	2 Jul 95
Dekerness	Computek	10 Oct 95
Belkas	Computek	9 Oct 95
Shirbeen	Computek	9 Oct 95
El Manzala	Computek	10 Oct 95
El Dakahlia Thani		
Mit Ghamr2	Computek	18 Jan 95
Mit Ghamr1	Computek	20 Feb 95
Mansura 2	Computek	2 Jul 95
Simbillawein	Computek	8 Oct 95
Dumyat		
Dumyat 1	Computek	6 Jun 95
Dumyat 2	Computek	18 Jun 95
Kafr Saad	Computek	18 Jun 95
Dumyat 3	Computek	19 Jun 95
Faraskur	Computek	20 Nov 95

MIDDLE EGYPT BRANCH (33)

El Faiyum		
Fayum1	Computek	1 Dec 96
Senors	Computek	3 Jul 95
Tamia	Computek	3 Jul 95
Fayum2	Computek	11 Jul 95
Fayum3	Computek	2 Dec 96
Ibshiwai	Computek	3 Dec 96
Itsa	Computek	11 Jul 95
Beni Suef		
Beni Seuf 1	Computek	2 Jan 95
El Wastta	Computek	15 Feb 95
Beni Seuf 2	Computek	15 Feb 95
El Fashn	Computek	16 Feb 95
Beba	Computek	18 Oct 95
El Menia		
El Menia 1	Computek	1 Jan 95
Mallawi	Computek	2 Jan 95
Abu Kerkaas	Computek	3 Jan 95
Maghagha	Computek	5 Jan 95
Mate	Computek	7 Jan 95
Beni Mazar	Computek	7 Jan 95
Samalout	Computek	8 Jan 95
Deir Mawas	Computek	16 Oct 95
Asyut		
Asyut 1	Computek	15 Sep 94
Asyut 2	Computek	15 Sep 94
Manfallot	Computek	15 Sep 94
Dairout	Computek	17 Sep 94
El Kosia	Computek	17 Sep 94
El Wadi Gidid	Computek	9 Jul 95
Abu Tig	Computek	24 Nov 96
Sohag		
Sohag 1	Computek	12 Sep 94
Sohag 2	Computek	12 Sep 94
Tahta	Computek	13 Sep 94
Tema	Computek	13 Sep 94
El Baliana	Computek	14 Sep 94
Gerga	Computek	14 Sep 94

198

SINAI BRANCH (12)

Port Said		
Port Said 1	Computek	4 Jun 95
Port Said 2	Computek	4 Jun 95
Port Said 3	Computek	5 Jun 95
El Ismailia & North Sinai		
Ismailia Branch	Computek	1 Apr 97
Ismailia 1	Computek	11 Jan 95
Ismailia 2	Computek	11 Jan 95
El Tel El Kebir	Computek	5 Jun 95
El Arish	Computek	25 Jun 95
Suez & South Sinai		
Suez 2	Computek	22 Jan 95
Suez 3	Computek	22 Jan 95
Suez 1	Computek	15 Mar 95
El Tor	Computek	5 Jul 95

UPPER EGYPT BRANCH (14)

Quena & El Bahr El Ahmar		
Luxor Branch	Computek	30 Mar 97
Luxor	Computek	17 Sep 94
Farshut	Computek	27 May 95
Naga Hammadi 1	Computek	28 May 95
Naga Hammadi 2	Computek	28 May 95
Deshna	Computek	29 May 95
Quena	Computek	31 May 95
Qus	Computek	31 May 95
Hurghada	Computek	5 Jul 95
Esna	Computek	29 Jul 95
Aswan		
Aswan 2	Computek	20 Sep 94
Kom Ombo	Computek	10 Jan 95
Aswan1	Computek	3 Nov 96
Idfu	Computek	4 Nov 96

VII TRAINING

BACKGROUND

SCOPE OF TRAINING ASSISTANCE UNDER THE PFAP

When this project was designed and bid, training was appropriately identified as a separate and important task of the project This task took on a much greater role over time, as the Sales Tax Department's modernization effort accelerated beyond that originally anticipated and as the technology component of the project advanced in both departments

This increasing importance of training was formally recognized when the project shifted to the second Phase in mid-1992, when a resident advisor position was established for Training The project benefitted greatly from two highly-experienced tax training professionals who served in this position, first Mr George Whitehouse for a year and then Mr William Kennedy for four years Mr Kennedy's extended tenure was particularly notable because it provided continuity of support during a period when training was exceptionally active in a number of areas

The discussion of the technical training assistance that was provided over the course of the project is organized into five major areas (i) support for modernization of training facilities, (ii) assistance in organizing department training programs, (iii) delivery of specialized classroom training which encompasses a broad range of areas as outlined later, (iv) language training, and (v) overseas tours Each of these components of training support is discussed below, with cross references as appropriate to prior chapters where training was discussed (as it was, for example, in Chapters IV (ERD's) and VI (computerization) Distinctions are made, where appropriate, between the support provided to the Tax Department and the Sales Tax Department, but the discussion is not organized by departments, as it was in Chapters IV, V, and VI This different organizing principle is used for this chapter because the training assistance to both departments had a high degree of commonality, and was provided under the guidance of a single resident training advisor

THE SETTING AT THE OUTSET OF THE PROJECT

When the project began, there was a notable training infrastructure in the Tax Department on which to build As a result of initiatives begun in the early 1980s, with support from USAID under prior tax assistance projects, the Tax Department had established a national Tax Training Institute (TTI) in Cairo and seven regional training centers located in population centers throughout Egypt The TTI was capably staffed with highly motivated managers, but it was handicapped by a chronic lack of modern equipment and by a lack of training supplies

In contrast to the Tax Department, the Consumption Tax Department, which had not previously had the benefit of project support from USAID, did not have any formal training centers for its staff, nor did it appear to have any formal training program All training was provided on the job

200

This lack of a training infrastructure or of prior institutionalization of formal training would later represent a significant obstacle when the Department implemented the new General Sales Tax

In the Tax Department, all courses and training materials were prepared centrally Course offerings appeared to be sparse and not to have been updated significantly in the five years prior to the project Training classes appeared to be done in a lecture format, with little or no support from visual aids, and only scattered reliance on group dynamics Courses were presented largely by a rotating volunteer cadre of instructors, all of whom were trained as instructors in Cairo Low per diem payments to staff on travel were alleged to be a significant impediment to recruiting training instructors, as well as trainees themselves, if travel was required

While there was an infrastructure for training in the Tax Department, there appeared to be little enthusiasm for training, based on discussions with Department managers at the outset of the project Several reasons were given for this general malaise

- Manager involvement was not sought in the planning and execution of training initiatives,
- Training was not viewed as addressing the real day-to-day issues and challenges that managers faced in their work and was not well presented, and
- There were financial hardships associated with training, not only because of the issue of per diems noted above, but also because employees normally did not share in incentive compensation while on training status

MODERNIZATION OF TRAINING FACILITIES

OVERVIEW

The initial project budget, and subsequent budgets as amended, included a line-item to support procurement associated with the departments' modernization initiatives These initiatives were primarily associated with training and computerization The project team prepared recommended plans for procuring equipment and supplies for the departments at several different times during the project, these plans reflected extensive discussions with the two departments, but ultimately reflected the project team's assessment of priorities

When the project team had completed its recommended plans for procurement, formal meetings were held with a Procurement Committee that was established for purposes of the project This Committee was comprised of the Minister of Finance, the Tax Department Commissioners, and the USAID Project Officer The Committee would review the project team's draft plan, agree on amendments as judged necessary, and then approve the plan Once approved the procurement was executed by the project team under stringent US Government procurement guidelines

Over the life of the project, approximately $1 0 million was spent on procurement directed towards equipping and modernizing the training facilities of the two departments The discussion that follows provides a summary of the equipment that has been purchased with these funds

201

Substantial additional funds were spent in support of in-country and out-of-country training courses

INITIAL TTI TRAINING PROCUREMENT

The initial training procurement under the project was, as intended under the original Phase I scope of work, directed towards the Tax Department's training program Working closely with the TTI professionals, and based on frequent project team visits to the TTI and visits to all of the Regional training centers, an overall procurement plan for modernizing the Department's training operations was prepared This plan was directed at five major objectives, as outlined below

- *Establish the capability at the TTI to make high quality training videos* This procurement initiative was designed to give the Department the capability to develop professional-quality training films that could be used to supplement personally-delivered training Such a capability was expected to be invaluable in disseminating consistent, uniform information and material to Tax Department staff It also had the potential of reducing, to some degree, the need for and burden on training instructors, since at least some of the training could be provided through the video format In support of this initiative, the project team executed an approved procurement to purchase a broad range of video equipment, which included the following
    - Two broadcast-quality video cameras,
    - A black and white copy camera for graphics,
    - A video mixer with edit/control/dub features,
    - A high fidelity audio mixer with sound, record, edit dub and duplication functions,
    - Three intercom stations,
    - Several monitors, both audio and video, to preview events during taping,
    - An editing machine and a duplicating machine, and
    - A field kit for one of the studio cameras, making it capable of recording outside of the studio, and a location lighting kit

  The procured system is based on S-VHS format that is very user-friendly, which was one of the criteria in the selection process Nevertheless, in order for the TTI staff to produce the most sophisticated presentations, training on the use of the equipment was desirable The project team therefore contracted with an experienced US television producer to supply this training (This training was also provided to staff at the Sales Tax Department's video studio, which had been funded and equipped concurrently using its own funds) The project also provided financial support to the TTI to prepare the sound studio with the necessary electrical support, air conditioning, and soundproofing

- *Establish electronic presentation capability at the TTI and the Regional Centers* Related to the above initiative, 27 video tape players and large (25" and 27") video monitors were procured, three for each regional training center and six for the TTI These were for use in presenting video training materials, including but not limited to those that were to be

202

prepared at the TTI using the new production technology described above In addition, the project procured 18 overhead projectors, slide projectors and screens for use in presenting other training materials

- *Establish self-instruction learning center at the TTI* To facilitate self-motivated training, the project procured four carrels equipped with micro-computers and audio tape players to provide an environment for self instruction These carrels were effectively used to provide comfortable quiet space for students preparing for class or for those pursuing self-motivated learning

- *Provide improved capability for producing written training materials* Production of written training materials was significantly constrained at both the TTI and the Regional Centers by limited access to both production and reproduction capabilities To address this deficiency, this initial project procurement included

  - ◊ A desk-top publishing computer, with software and peripherals for the TTI, to support production of high-quality training materials,
  - ◊ A high-speed, heavy duty copying machine for the TTI, and
  - ◊ Medium-sized copying machines for each of the Regional Centers

- *Provide classroom equipment and supplies to enhance training presentations and ensure use of procured equipment* In addition to the high-technology equipment listed above, the project procured flip chart stands and paper, and an extensive set of supplies (transparencies, blank audio and video tapes, grease pencils for transparencies and flip charts, and paper) The objective was to purchase both a capability for informal written training materials and sufficient supplies for producing training materials for two years, at which time it was expected that the Department would begin budgeting for such supplies

In total, this initial major procurement, inclusive of shipping, totalled almost $430,000, as shown in Appendix Exhibit VII-A at the end of this chapter

In 1998, further procurement support was provided to the TTI and the Regional Training sites through the purchase of 125 workstations for use in regular classrooms and computer rooms In addition, 250 ergonomically-engineered student chairs were also purchased This further procurement alleviated a significant problem for the training centers and provided for a better learning environment for trainees

This investment in training equipment, furnishings, and supplies has proven to be a very valuable one to the Department The addition of the video production and display equipment has enabled an already dedicated training staff to further enhance the delivery of training Consequently, video products to support classroom training are being integrated into all major course development efforts The use of this medium has improved the learning environment and reduced training travel costs It has also helped to alleviate course planning and delivery problems and has resulted in technical and management training being delivered on a regularly scheduled basis Classroom space at the TTI, and generally at the Regional sites (which are now twelve in number), is fully utilized most of the year Other training equipment and supplies purchased by the project have also been effectively used in the classroom learning environment

The Tax Department considers this to have been a very important benefit of the project, and one that will pay continuing dividends long into the future

ESTABLISHMENT OF COMPUTER LEARNING CENTERS

In 1993/94, a computer-training infrastructure was established by the project with the creation of an administrative computer classroom at the TTI This was followed in 1996 by the procurement of (i) equipment to establish two computer learning laboratories at the original Sales Tax Training site in Maadi and (ii) computers to establish a second laboratory at the TTI Each department now has two computer training laboratories that provide the following services

- One is a learning laboratory for training in the use of computers for general administrative purposes, such as WordPerfect, Lotus, and other standard software packages, and was designed for broad usage by a wide range of professional and support staff This laboratory contains 12 computer terminals and a printer, as well as a broad range of software products
- The other is a learning laboratory for more specialized training of the ADP staffs of the two departments in more sophisticated software systems such as UNIX and Informix This learning laboratory has 10 terminals and one UNIX system

Based on feedback from both departments, these learning centers have been invaluable in advancing the use of computer technology in all aspects of the departments' operations

EQUIPPING THE NEW SALES TAX DEPARTMENT TRAINING CENTER

In 1994 the Sales Tax Department commenced a long-planned initiative to build a large and modern training facility that could be used not only by the Sales Tax Department, but potentially by other departments in the Ministry of Finance or even other Ministries on an availability basis Commissioner Mahmoud Ali was the driving force behind this initiative, which reached a conclusion with the official opening of the Maadi center in the latter part of 1998, just as the project was ending The approved procurement plan for the final phase of the project anticipated the successful completion of the training center, and provided for substantial procurement of equipment and furnishings for the center A summary of the equipment procured is presented below

- *Providing Flexible Workstations* To initially help equip the center, 250 workstations and 450 modern classroom chairs were purchased for the new center The workstations are adjustable tables, to maximize configuration flexibility, the chairs have ergonomically-designed seats and backs, height adjustment capability reclining and swivel ability, etc The objective was to provide a flexible and comfortable learning environment for trainees
- *Training Production Capability* The Department financed the creation of its own TV production studio within the Sales Tax Training Department in 1994/95 The project objective was to expand the capabilities of that studio The additional equipment purchased by the project was designed to enhance this studio's ability for more off-line production tapings/recordings With that goal in mind the following equipment was purchased, two video production cameras, a video character generator, two digital still image cameras, one specialty printer for Digital still image cameras 35 mm Slide Film Printer, six computer interface

207

devices, four scan converters and an Off Line Editing Machine for more effective editing capability

- *Administrative Computers* An administrative computer was also purchased for the studio to support video production activities Eight other administrative computers were also purchased for the Training Center, some of which will be dedicated to providing word processing support for Course Design and Development efforts

- *Training Delivery Capability* An increase in the number of classrooms (the training center previously created by the Department had only four classrooms), the construction of a major auditorium, and other large conference spaces created a need for more training equipment to support traditional delivery of training materials To meet these needs substantial equipment was purchased, including

  - Six LCD Data/Video Projectors,
  - Two interactive electronic whiteboards,
  - Eight lecturns,
  - Six color TV monitors and VCRs, and
  - Twenty-two flipchart stands, electronic pointers mobile carts, and portable whiteboards (with general supplies)

This procurement for the new Sales Tax Department Training Center, as shown in more detail in Appendix Exhibit VII-B, cost approximately $550,000

SUPPORT TO ORGANIZING AND IMPROVING THE TRAINING FUNCTION

The project team reviewed the training functions of the tax departments from both a broad perspective – how can tax training best be organized and delivered within Egypt – and from a narrower perspective, working independently with the Tax Department and the Sales Tax Department

BROAD TRAINING INITIATIVES

Viewing training from a broad perspective, the project team made two specific recommendations related to training in its 1992 "Redbook" presentation on comprehensive tax reform One recommendation was to consolidate all Ministry of Finance training in a single institute, the other was for the GoE to take the lead in promoting an Arab Tax Organization

- Consolidation of Training in the Ministry of Finance The project team offered several arguments in favor of this consolidation

  - With the introduction of the GST, the roles of the departments were more closely linked, and there was increasing reason for closer collaboration between the departments
  - Training courses in a number of areas, such as management and the use of computer technology, could be given to employees in all of the departments

- ◊ There would be substantial economies of scale, both in terms of instructors and physical facilities, especially in the less populated regions where there was not sufficient size to justify a large cadre of trainers and training sites for individual departments

The recommendation was not acted upon because the departments argued at the time that (i) they had different needs that warranted different centers, and (ii) they were of greatly different sizes, and that the training needs of the larger Tax Department would therefore get first priority The coordination between the departments is changing however, especially since Minister Gharib has emphasized the need for greater information sharing and collaboration between them With the completion of the new Sales Tax Department training center, there would seem to be greater possibilities for shared use of training facilities and joint participation in courses

- ♦ *Arab Tax Organization* Somewhat apart from other training recommendations, the project team recommended that Egypt promote an Arab Tax Organization, patterned after similar organizations in other parts of the world The benefits of such an organization were perceived to include

  - ◊ Increased and more structured dialogue with neighboring countries on common problems and issues,
  - ◊ Opportunities to pool resources for research, training and even technological development,
  - ◊ Sharing of tax information to improve tax compliance in all member countries, and
  - ◊ A forum in which model tax treaties could be developed and promoted

The project brought the Director of the Latin American regional organization, CIAT, to Egypt in 1991 to discuss this issue with the Minister and others, and there was enthusiasm for it However, with the subsequent onset of the Gulf War, the initiative was tabled for an extended period of time And while the issue did have a rather long gestation period, the Arab Tax Organization did in fact become a reality in late 1997 when it held its first meeting of seven member countries in Cairo

ORGANIZATION OF TRAINING WITHIN THE SALES TAX DEPARTMENT

The project team provided extensive support to Commissioner Mahmoud Ali in his efforts to build a modern and useful training program for his Department The Commissioner recognized that, in addition to preparing modern facilities in which to present training, that the Department needed technical support in determining the types of training to be provided and the ways to provide it In responding to this need, the project team undertook a number of initiatives

- ♦ *Systems approach to training* The systems approach to training, which flows from work done originally in the 1960s,[26] encompasses three major phases (i) performance analysis, (ii) course design and development, and (iii) course implementation and maintenance The initial performance analysis phase is generally considered to be of paramount importance It

[26] See for example Robert Mager, Preparing Instructional Objectives, rev 2nd Edition New York David S Lakes Publishers 1984 1975 1962

200

is during this phase that a determination can be made as to whether or not training is the appropriate solution to address the perceived problem In January 1994, the project team organized several workshops for the Commissioner and his senior executives to present the systems approach to training These workshops presented the overall characteristics of a mature training system, and the associated course offerings The workshops were judged highly successful, and the Commissioner subsequently adopted the systems approach as recommended

- *Organizing the Sales Tax Training Functions* At the request of Commissioner Mahmoud Ali the project team provided extensive recommendations for a complete reorganization of the Department's Training Staff The recommended reorganization was designed to reflect a more functionally directed 'client-oriented' structure Distinct training support staffs were established for collection, anti-evasion, audit, taxpayer service and returns processing activities Furthermore, support groups for management and computer training were also separately identified The project team provided the Department with required organization charts functional statements, recommended staffing, and position descriptions Operational guidelines were developed providing the new organization with rational direction The new organization was implemented by Commissioner decree in August 1997, essentially as recommended

- *Establishing a 'State of the Art' Training Facility During* the planning and construction period of the Department's new Training Center in Maadi, the project team provided technical assistance and advice on a wide range of subjects ranging from the layout of the facility, including the number and size of classrooms, to suggestions concerning internal wiring, sound proofing, and other infrastructure considerations The project team worked with engineers from both the Department and the Architectural Design Center in Maadi in this effort The product of this collaborative effort will be one of the most 'state of the art' training institutions in the Middle East The training center includes a residence hotel, conference center, extensive classroom facilities, cafeteria, health unit, and student center In addition to the Department's new center in Maadi, classes are now conducted in nine other satellite locations throughout Egypt

- *Longer-term training plan* In 1994 at the request of the Commissioner, the project team developed a two-year training plan and schedule for the Department The plan included separate schedules for course development efforts and for the conduct of already existing training courses The plan was approved by the Commissioner and implemented by the Department's Training Staff This initial plan has served as a model for subsequent planning efforts With the recent implementation of the new training organization, a visiting project training consultant also provided extensive individual mentoring to new managers reinforcing the need for complete and comprehensive planning

COURSE DESIGN AND DEVELOPMENT

Most tax administration skills, such as the examination of tax returns or the collection of past due taxes, cannot be found in the labor market Colleges and Universities do not teach these specialized skills Instead they are learned on the job and in specialized training For that reason, modern tax departments have developed training organizations to maintain and operate comprehensive training and development programs in support of all major tax-related functions Programs are prepared to train recruits, prepare employees to undertake more advanced work, train specialists and managers and keep the work force up-to-date with new tax laws, management practices, and procedural changes

The project team introduced the rigorous concepts of course design and development to both departments through a series of training programs These programs were conducted by both resident advisors and visiting training consultants These programs were followed with specialized Instructor Workshops to provide the Departments with the ability to continue teaching these concepts to others Cadres of course developers from all major tax functions were trained Simultaneously, the top executives were briefed to insure support for this effort The project team supplemented the technical tax and procedural knowledge already existing within the Departments with expert training and briefings from both resident and visiting consultants Often these experts worked directly with Department course development teams (as discussed later in this chapter)

Both Departments are well on the way to developing the comprehensive training curricula needed to fully serve their needs To assist the Sales Tax Department in their efforts, the project team developed a comprehensive 'Training Catalogue' showing courses with course descriptions of training programs that have already been developed along with suggested programs that should be the subject of future efforts The training department uses this document as an important planning source

Basic Management Training is now also provided on a timely basis in both Departments to all new managers This training is patterned after much of the management related training provided to the Departments by the project team Every effort is also made to insure that new recruits receive training in an expeditious fashion More specialized and advanced training programs are either currently being taught, under development, or are in the late planning stages While much work needs to be accomplished, the Departments have made laudable progress to date

SPECIALIZED CLASSROOM TRAINING

On-the-job Training by Resident Advisors

In addition to providing on-going advice and counsel to the departments, on many occasions resident advisors assumed the role of on-the-job coach or classroom instructors This role was required to transfer immediate knowledge and skills needed to assure continued progress and mutual understanding between the advisor and department personnel During the early stages of the introduction of the GST many formal and informal training sessions were conducted by the Resident Sales Tax Advisor Among other subjects included in these sessions were the basic principles of an invoice-credit type of sales tax, registration procedures, and the role of audit

Resident advisors were also called upon by the departments to give periodic training seminars on a number of topics including management theory, planning techniques, organizational theory, ADP related topics, collection practices, taxpayer service and education, and anti-evasion Every resident advisor including the Chief of Party participated at one time or another in these sessions In addition the resident advisors often worked in tandem with visiting consultants to assure classroom instruction met the needs of the Government of Egypt

208

Management, Technical, and Training Skills

In order to enhance efforts of the resident advisors, and to provide more concentrated attention to certain specialized or critical training areas, visiting consultants were employed for short-term assignments lasting generally from two to four weeks in duration Most of these consultants were from the United States, all were highly experienced experts in the field in which they were providing training In addition to conducting training classes, in most instances, these consultants also followed-up with specialized instructor workshops, or worked directly with course developers in the Departments In this way, the subject matter they presented could continue to be taught by departmental staff in the future The focus of the project team's training efforts was directed to three major areas, as follows

♦ *Management Training* The most important goal in the area of management training was to establish, in both Departments, a first-rate Basic Supervisors Program The project team felt that the transition from technician to first-line supervisor is perhaps the most difficult and challenging career transition to make Considerable benefits would result from preparing the Departments to teach this program on an on-going basis A further goal was to introduce a variety of management training programs that taught systems, techniques, and skills that the Departments could adopt to their own culture and needs While these and other courses could not meet the entire spectrum of management training needs, considerable progress was made and the Departments are now well on the way to expanding these offerings The Programs that were introduced and the consultants involved were

◊ Basic Supervisory Training	Robert Agresta
◊ Management Careers Programs	Phillip Russo
◊ MBO, Strategic Planning, Mid-Managers, Time Management	Dr Michael Kane
◊ Organizational Theory and Practices & Analytical Skills	Stanley Goldberg

♦ *Technical Skills Training and Assistance* A primary objective in this area was to provide training in the functional tax areas of audit, collection, taxpayer service and education, and anti-evasion as sources of knowledge to spur the development of basic and advanced programs in both departments Another important consideration was to provide assistance in the important area of computerizing the selection of returns for audit Other consultants resulted from specific requests from the Departments The Program areas and the consultants involved were

◊ Audit Training & Computerized Selection	Norman Fox
◊ Collection Training	Charles Hoyle
◊ Taxpayer Service Training	Lawrence Phillips
◊ Anti-Evasion Training and Assistance	Tim Wellesley
◊ Sales Tax Training and Assistance	Ken Thwaite Derrick Fellingham
◊ Forms Design	Thomas May

- *Training Institutional Skills Instructor* training had been taught at TTI in the past and was introduced for the first time in 1993 to the Sales Tax Department To support these departmental efforts, and to bring additional knowledge and skills to them, specialists were brought in a number of areas Initial efforts were directed at introducing and institutionalizing a 'state of the art' Course Design and Development Training Program In addition, special assistance was provided to assure effective video studio operations in both departments Finally, consultant assistance was obtained to provide expertise on completing and equipping the new Sales Tax Training Center in Maadi Training Programs and the consultants responsible were as follows

◊ Course Design and Development	Orion Birdsall
◊ Video Studio Operations	Frank Fitzmaurice
◊ Building and Equipping the Maadi Training Center	Scott Sharer

Appendix Exhibit VII-C at the end of this chapter provides additional detail on the timing and specific courses offered over the life of the project

COMPUTER TRAINING

The success of the project team's role in computerization, outlined fully in Chapter VI, hinged critically on developing a knowledge and technology skills infrastructure on which to build, and on the transfer of project-developed software technology to the Departments As fully outlined in the prior chapter, this effort encompassed a broad range of training efforts, including

- Vendor-provided training on use of computer hardware and specific software products like UNIX and Informix,
- Formal project team training on the development of and use of specific software applications like the GSTACS software developed for the Sales Tax Department, and
- On-the-job training, working with departmental staff, as they continued to develop new software products and sub-systems that build on products developed by the project team

ECONOMIC RESEARCH UNITS

The establishment and training of the Economic Research Departments (ERDs) in the two tax departments represented a major initiative that necessarily required a major training effort by the project team This training effort, which is only summarized here in the interests of presenting a comprehensive overview of all project training, was discussed fully in Chapter IV The ERD training effort, which was conducted by a combination of local staff, resident advisors, and Barents professionals from the home office included

- The development and execution of sustained training in Public Finance, by an Egyptian Professor of economics, Dr Hafiz Shaltout, who joined the project team in 1990,
- General training in the use of computers and computer software programs,

- Extensive training in the use of analytic models including the specific models developed by the project team for use in analyzing the revenue and economic effects of tax reform in Egypt,
- Training in policy analysis, and
- Training in the preparation of policy reports and analyses for high level officials in the ERD's respective departments

LANGUAGE TRAINING AND SUPPORT

The Commissioners of the Departments enthusiastically supported the provision of English language training to departmental staff Such training was expected to be invaluable to

- Professional staff working in the information technology field, where much of the technical information, especially information on new technologies, is not readily available in Arabic,
- Translators, who are helping to provide important information in the taxation field to non-English speakers, and
- Professional staff generally who wish to be able to access a broader body of information than is available in their native language

With these audiences specifically in mind in selecting candidates for language training, substantial training was provided to departmental staff, largely through an existing USAID program that supported English language training at the American University of Cairo In selected cases, this training was supplemented by the use of project funds for separate or specialized training In all cases, department trainees were accepted for training only on a joint Department-project recommendation and after approval by USAID

This language training was concentrated in the first four years of the project, and resulted in a total of about 400 employees from both departments participating in programs ranging from beginner to more advanced English Language training In addition, the project team provided training to Sales Tax Department translators in the project team's premises Mohammad Helmi, the project team's chief translator, led this training

It is also worth emphasizing that the project team translated a large volume of project-related materials into Arabic, including a number of project team-sponsored training materials These included

- Basic Management Training (student and instructor guide),
- Course Design and Development (student and instructor guides),
- Problem Analysis Training (student text),
- Performance Management Training (student text),
- Time Management (student text),
- Student's Technical Notes on
    - ◊ Taxpayer Assistance

- ◊ Collection
- ◊ Anti-evasion Techniques

- A Management Careers Program and
- Taxpayer Service and Education

The project team also worked with the Sales Tax Department to identify a large volume of works related to taxation that could beneficially be translated into Arabic These works related to a VAT type sales tax policy and administration, computerization and management information systems, management and organization, finance, and economics The Sales Tax Department, in turn, recruited approximately thirty translators, and assigned as one of their major responsibilities, the translation into Arabic summaries of the different volumes, or extracts from them The Department also formed a library in which to organize and retain all of the materials that had been acquired from the project and other sources

Additionally, English language documents were also obtained during the Commissioners' trip to the United Kingdom These documents were translated by the project team and presented to the Sales Tax Commissioner

OVERSEAS TRAINING

Providing department executives and key senior tax officials' exposure to modern overseas tax organizations can be a major catalyst to successfully advancing organizational and systematic changes within the tax departments Under the project, three such trips were held Each trip was designed to meet important needs identified in advance Depth of coverage was geared to the special interests of the participants and perceived importance of the subject to the project team's work in Egypt The USAID Project Officer Iman Shayeb provided valuable insights while accompanying the participants on each of the visits to the United States Mr Mohammad Helmi, project team Chief Translator also participated in all trips

- *Trip to the United Kingdom* (July 24 - Aug 2, 1995) Both the Sales Tax Commissioner Mahmoud Muhammad Ali, and the Tax Department Commissioner, Fathy Abd Baki visited the United Kingdom On the trip, the GoE covered the expenses of the Commissioners The project arranged the trip and provided all translation and logistical support This trip gave the Commissioners the opportunity to examine at first hand filing, processing and enforcement operations at the Department of HM Customs and Excise, which administer the U K's value added tax The Commissioners also had the opportunity to meet the Inland Revenue's Change Management Group, a group specifically created to engineer and manage administrative reform and modernization The trip proved successful in its primary aim of demonstrating how modern tax administrations organize and operate and provided the source for several initiatives upon the return of the Commissioners

- *Trip to the United States* (Sept 29 - Oct 21, 1995) This trip involved only the Sales Commissioner, Mahmoud Ali This trip was equally successful concentrating on an indepth orientation to concepts of strategic planning and other techniques employed at Internal Revenue Service and at the tax systems in the states of Maryland and California In addition, the Commissioner toured IRS facilities such as the National Office in Washington and the

Philadelphia Service Center, and he visited the training center at the Fedral Deposit Insurance Corporation (FDIC) Exposure to a regional and district office was also included Extensive briefings and tours were also conducted by Barents Group professionals in its Washington D C office, and in each of the state visits All visits to tax sites were planned with an emphasis on the application of computers in a modern tax organization

- *Final trip to the United States* (May 8 - May 31, 1998) This trip involved six senior tax officials from the Sales Tax Department These officials represented most major tax functions including tax compliance ADP, and the Economic Research Unit In order to enhance their subsequent exposure to tax administration organizations, special briefings were first conducted by senior associates and managers at Barents Offices in Washington Briefings were also arranged at the U S Treasury on oversight of the revenue functions of government as well as targeted tours of Congress In addition, indepth coverage was provided by tax administrators in the states of Iowa and California This included coverage of all major tax functions with emphasis on computerization

As a final concluding note on the oversees training, it is worth emphasizing the contributions such training provides to participants First, and perhaps most importantly, the visits provide a vision for the participants as to what can be done with modern technology, techniques and organizational structure Mr Mahmoud Ali's visits to the UK and the US were, we believe, instrumental in helping him to shape his vision of how a modern training center could be structured, how a mature and fully-developed data processing system can support tax administration, how information sharing between departments can improve compliance (this was based on an opportunity to review the interrelationships between Federal and state tax authorities), and how a functionally-organized tax department can operate We believe the other participants in the training benefited similarly from the overseas training experience

Second, such training can provide added technical and managerial depth and breadth to the participants In the participants review of the oversees training, they noted that the training began at the moment they walked into a building and observed the security systems in place, and continued throughout the day In terms of technical and managerial depth, the oversees experience included training in areas in which the participants currently work, thereby providing specific knowledge on new techniques and approaches that are used in the US and that could be adapted for use in the Egyptian context

In terms of breadth, exposure to modern tax administration was provided in a wide range of areas, reflecting efforts to provide at least some training to each of the participants in their current area of specialization This breadth reflected the fact that the senior visiting officials from the Sales Tax Department who visited the US in 1998 represented several different disciplines, including audit, collection, training, information technology, and the ERD's Since exposure was provided in modern techniques and approaches in all of these areas, each participant was exposed to modern approaches to tax administration outside of their current areas of responsibility Since these officials represent the future leaders of the Sales Tax Department this broadening of exposure was almost certainly of great value

The overall impression of the project team was that the overseas training conducted under the PFAP was highly valuable and provided significant benefits relative to the costs incurred

APPENDIX VII-A

EQUIPMENT FOR TAX TRAINING INSTITUTE

VIDEO PRODUCTION CAPABILITY	**US $**
Broadcast-quality video cameras (2)	
Black and white camera for graphics	
Video mixer with edit/control/dub features	
Audio mixer with all functions	
Intercom stations (3)	
Several studio Monitors	
Editing and duplicating machine	
Studio Field Kit and Location Lighting	
Sub-total	**$165,000**
ELECTRONIC PRESENTATION EQUIPMENT	
25" and 27" TV monitors (27)	
Multi-system video tape players (27)	
Computer Projecting Device	
Overhead Projectors (18)	
Projector screens (18)	
Carousel slide projectors (18)	
Slide projector trays (54)	
Sub-total	**$57,000**
SELF INSTRUCTIONAL TRAINING FURNITURE AND EQUIPMENT	
Micro computer and self-instrutional carrels w/video (4)	
Audio tape players (100)	
Supply of tapes	
Sub-total	**$25,000**
TRAINING MATERIALS PRODUCTION EQUIPMENT	
Desk Top Publishing computer with software	
High speed/heavy duty copying machine	
Medium size copiers for Regional Training Centers (7)	
Supplies - two years	
Sub-total	**$115,000**

214

TRAINING DELIVERY EQUIPMENT	
Flip chart stands (27) Supply of flip chart paper Transparencies for overheads Black video and audio tapes Grease pencils and paper	
Sub-total	**$17,000**
SHIPPING	**$56,000**
APPROXIMATE GRAND TOTAL	**$435,000**

APPENDIX VII-B

FURNITURE AND EQUIPMENT
SALES TAX DEPARTMENT TRAINING CENTER IN MAADI

FLEXIBLE WORKSTATIONS	**US $**
Classroom and computer Tables (225) Economically designed student chairs (450)	
TRAINING PRODUCTION EQUIPMENT	
Video production cameras (2) Video character generator (1) Digital still image cameras (2) Specialty printer for still image cameras (1) 35 mm slide film printer Computer interfaces devices (6) Scan converters (4) One off line editing machine Studio computer (1) Administrative computers (5)	
TRAINING DELIVERY EQUIPMENT	
LCD/DATA video projectors (6) Interactive electronic whiteboards (2) Color TV monitors and VCRs (6) Flipchart stands, electronic pointers, mobile carts, and portable whiteboards (22) Administration Conjunction (4) Supplies to support all operations	
APPROXIMATE GRAND TOTAL	**$550,000**

216

APPENDIX VII-C

TRAINING PROGRAMS AND ASSISTANCE VISITS

Dates And Activities

MANAGEMENT TRAINING	MONTH/YEAR	ACTIVITY
MBO	June 1995 October 1993 March 1994	Training taught to Sales Tax Planning Staff Expanded to Sales & Income Tax managers Instructor workshops conducted in both Departments
Management Careers Programs	December 1993 October 1994	Study completed in Sales Tax Department and proposals made to Commissioner Follow-up with Department's Committee reviewing proposals
Basic Management Program	January 1995 March 1995 October 1995	Conducted initial Programs in both Departments followed by specialized instructor Workshops Management Reinforcement workshops for top level executives Studies to confirm positive results from Basic Management Training
Strategic Planning	November 1994	Conducted with the Commissioner and top executives of Sales Tax Department
Performance Management	November 1994 January 1995	Training conducted in both Departments Specialized instructor workshops conducted
Middle Manager Training	July 1995	Course conducted with instructor workshops in both departments
Time Management	August 1995	Program and workshops both departments
Organizational Theory	June 1995	Special assistance to Tax Department
Technical Skills Training and Assistance		
Audit Selection/Computerization	April 1994 December 1994 December 1995	Training Programs conducted both Departments Assistance of Sales Tax Audit Staff on computerizing system Special functional training program for new managers in Sales Tax Audit
Forms Design	June 1994 August 1995	Workshops conducted in both Departments Special technical assistance to Sales Tax Commissioner

217

Technical Skills Training and Assistance		
Taxpayer Assistance	January 1995 July 1996	Program and workshops taught in both Departments Customer relations taught in both Departments
Collection	January 1995	Techniques of enforcement taught in both Departments including special work with Sales Tax course developers
Anti-Evasion	March 1995 November 1995	Conducted workshops in both Departments Special assistance to Tax Department on organization equipment and training needs
Analytical Training	September 1995	Analytical skills training to Sales Tax Department
GST Training	May 1997	Assisted in development of training program for extending GST to retail level
TRAINING INSTITUTIONAL SKILLS		
Course Design	January 1994 September 1994 November 1995	Concepts of Course Development conducted both Departments Instructors Workshops conducted Special "Train the Trainers" for Sales Tax Training Center Staff
Video Studio Operations	June 1994 September 1995	Studio training for both Departments Advised Income Tax Department on major video production
New Training Center	April 1996 September 1997 March 1997 November 1997	Proposals concerning building and equipment Final specifications developed for equipment purchases Targeted assistance to newly appointed managers Planning and procedural skills taught to staff

VIII LOCAL PUBLIC FINANCE

BACKGROUND

In a communication to USAID Mission Director Marshall Brown in July 1990, Prime Minister Atef Sedky indicated that the Government of Egypt's (GoE) Local Development Policy Committee (LDPC) was pursuing an agenda of local government financial reform in Egypt He further indicated that the GoE would be receptive to USAID technical assistance in support of this effort In the prior decade, USAID had devoted substantial funding to local public finance reform which, while it had accomplished a number of different objectives, had not been successful in promoting devolution of greater fiscal responsibilities to local governments USAID viewed the request as a potential opportunity to support the Government if they appeared ready to make progress in this important area

Barents Group was a candidate for supporting this work because the scope of the Public Finance Administration Project covered both central and local government finance Moreover, Barents had local public finance specialists on its International Advisory Board and on its staff, and was accordingly well positioned substantively to do the work This capability was greatly enhanced by the familiarity of the existing PFAP team with the Egyptian fiscal structure, and by the project infrastructure that had been created during the prior year

The work envisioned under the project encompassed three separate phases, only the first of which was to be funded under the initial contract, with extensions to later phases linked to demonstrated evidence that the GoE was prepared to move forward with local government fiscal reform

- *Phase I* Conduct a Local Government Fiscal Management Study that will accomplish the following objectives
  - ◊ Develop a conceptual framework for local public finance reform in Egypt
  - ◊ Analyze the current local public finance system
  - ◊ Recommend alternative revenue sharing formulas for channeling central government funds to local governments
  - ◊ Develop recommendations for increasing local government revenue sources
  - ◊ Develop a draft implementation plan
- *Phase II* Support the GoE to implement Phase I recommendations in several pilot localities, monitor results, and drafts plan for nationwide implementation
- *Phase III* Support the GoE to implement local government fiscal reform on a nationwide basis

In November 1990 a contract modification was signed adding the Local Government Fiscal Management Study to the PFAP Scope of Work and work commenced very shortly thereafter (though with some interruptions resulting from travel restrictions in early 1991 associated with the Gulf Crisis)

The work was done under the overall substantive direction of Dr Roy Bahl, who had worked extensively on local public finance reforms in many other emerging market countries, and who visited Egypt periodically to give input and direction to the study The day-to-day management of the study was done by Dr Robert Firestine, who was resident in Cairo for the year of the study, with substantial input from Dr James Wozny, who worked on the project for twelve months, about half of which was spent in-country The team was supported by the work of a number of public finance economists who visited Cairo on short-term assignments, and by Dr Darwin Johnson and Mr John Baldwin, the Chief of Party and Deputy Chief of Party, respectively, of the Public Finance Administration Project

OVERVIEW OF THE WORK PERFORMED

The purpose of the Local Government Fiscal Management Study (LGFMS), like that of the overall Public Finance Administration Project of which it was a part, was to be a catalyst to and provide an analytic foundation for reform The fact that the work was done under the rubric of a "Study" did not alter that basic proposition, which was understood by all who were participating in the effort, that reform was *the* objective As noted above, however, the overall scope of work for Phase I was to establish a conceptual and analytic foundation on which to build in two later phases in moving forward with actual local government reform in Egypt

With this foundation-building objective in mind, five major studies were commissioned at the outset of the project, together with a number of efforts to identify and begin to work with key counterparts in the GoE who could influence significantly the course of future local government fiscal reform The five major studies that were commissioned, each of which is summarized below were

- A conceptual overview on the benefits of fiscal decentralization and the experiences of other countries that have introduced major fiscal decentralization reforms
- An overview on intergovernmental fiscal policies in Egypt
- A detailed analysis of the current structure and financing of local governments in Egypt
- An analysis of local budget forecasting in Egypt and how it could be improved
- An analysis of property taxation in Egypt, and its potential as a dedicated revenue source for local governments in Egypt

Over the course of the 18 months that the project was active and during the period when these studies were being conducted, discussions were held with many senior GoE officials, both in the Ministry of Finance and in different governorates within Egypt The purpose of these discussions was to better understand the current fiscal operations at the different levels of government within Egypt and to begin discussing and promoting the potential merits for future reforms One objective of these discussions at the local level, was to identify pilot locations where reforms might be actively and enthusiastically supported, if and when the project moved to a second Phase

PROJECT STUDIES

As noted above, five separate studies were prepared during the course of the Phase I LGFMS, each of which was designed to build a foundation on which local government fiscal reform could be launched The expectation was that this foundation would (i) serve as a catalyst to promote fiscal reform amongst GoE policy officials and (ii) to provide the necessary information about the GoE fiscal system to help develop the specific reforms that would be desirable within the Egyptian context Each of the studies, which are documented in formal project team reports, is summarized below

FISCAL DECENTRALIZATION

One of the first studies completed under the LGFMS was "Fiscal Decentralization" by Dr Roy Bahl, in August 1991 [27] This report was designed to look at decentralization issues from the perspective of experience in other countries, and assess how decentralization might be approached in Egypt, based on the experiences in other countries Specific issues that were addressed in Dr Bahl's report included the following

- *Why Seek Fiscal Decentralization?* This section of the study highlighted the traditional arguments for decentralization and how they support the case for greater local autonomy in Egypt The benefits of greater local autonomy identified included the following
  - ◊ Constituents would have the opportunity to select the level and composition of local public goods and services they desired, providing a more efficient allocation of resources
  - ◊ Local governments would be in a better position to mobilize revenues from revenue sources to which they were given access The study noted that the best way to decentralize government spending is to assign local governments particular revenue bases or to guarantee them shares of particular central taxes
  - ◊ Urbanization would potentially be moderated by a system that better imposed the costs of local services on those who received them
- *How to do Fiscal Decentralization* The study noted that there are three policy instruments for shaping the degree of a nation's fiscal decentralization (i) the assignment of central-local fiscal responsibilities, (ii) the revenue raising powers of local governments, and (iii) the intergovernmental transfer system These are the policy instruments one must look to in promoting reform The study noted that there is great variation among countries in terms of local revenue raising authority, local expenditure responsibility, and local autonomy in deciding upon the mix and level of local services Developing countries, like Egypt, tend toward government centralization

[27] Dates cited are those when the studies were finalized as project reports Earlier drafts of the papers were circulated amongst project team members, USAID, and in some cases, the GoE

221

- *The Role of Intergovernmental Transfers (grants)* The study noted that grants can support movement toward fiscal decentralization by financing local government services, though the design of the grants system determines the extent to which it permits local fiscal autonomy (Because of the potential importance of grants to local government reform, the design of alternative revenue sharing formulas was one of the objectives of the LGFMS) The study identified four different methods for distributing grants – formula distribution, cost reimbursement, returning shares to jurisdictions of origin, and ad hoc distribution – and identified the advantages and disadvantages of each It noted that no optimal grant structure exists, and that different developing countries have followed different approaches
- *Local Revenue Mobilization* The study emphasized that if fiscal decentralization is to succeed, local governments must have some autonomy in revenue raising Local governments in developing countries employ a wide variety of taxes and charges, and only a careful analysis of the specific circumstances of each country can determine the appropriate mix and levels of local revenue raising mechanisms

The study recommended that a dialogue on fiscal decentralization be initiated with the GoE immediately (which was done with the Local Development Policy Committee through USAID) and that a senior representative from the Ministry of Finance be added to the Committee because of the Ministry's key role in any local government reform (which was subsequently done) The study also served as the basis for briefings with the Mission Director and others in the USAID Cairo Misison on the potential directions that local government reform might take in Egypt

INTERGOVERNMENTAL FISCAL RELATIONS IN EGYPT

A second report prepared under the LGFMS was "Intergovernmental Fiscal Relations in Egypt" by Dr Larry Schroeder, also finalized in August 1991 Whereas Dr Bahl looked at the issue of local government reform more from a conceptual perspective, based on experiences of other countries that have introduced local government reforms, Dr Schroeder's report was focused on the specific issues that Egypt will face in introducing such reforms, with a particular focus on the intergovernmental transfer system

In his review of the existing system, Dr Schroeder noted that a governnorate's fiscal role is essentially limited to advising the central government on needed local spending and assisting in the mobilization of resources In such an environment, it is unrealistic to anticipate that greater fiscal decentralization will come easily and quickly Indeed, while movement toward decentralization was highly desirable, he suggested that it might be inappropriate to seek extremely rapid changes since the governorates have had little experience with fully autonomous fiscal powers

On the basis of the analysis of the existing intergovernmental system in Egypt, Dr Schroeder recommended a number of long-term reforms in the grant structure in Egypt

- Adoption of a full-cost reimbursement grant for governorate labor expenditures,
- Creation of a formula-based grant to augment current non-labor expenditures, and

222

- Continuation of a capital grant system based on national development plans, but with increased governorate flexibility in spending these funds and in augmenting them with own-source revenues

In addition, Dr Schroeder noted that other concerns in addition to grants would have to be dealt with as part of a successful overhaul of Egypt's local government fiscal structure, most notably improvement in the fiscal management capabilities of the governorates

THE LOCAL GOVERNMENT FISCAL STRUCTURE IN EGYPT

At the same time that the two studies outlined above were being conducted, a longer-term effort was initiated to assess in detail how the intergovernmental system worked in Egypt This effort was led by Dr James Wozny, who was resident in Cairo for a period of approximately six months while the effort was underway, and he was supported by others on the project team His detailed report 'The Current Structure and Financing of Local Administration in Egypt" was finalized in January 1992 and is arguably the most detailed and most definitive analysis that exists on the structure of local government finance in Egypt

The purpose of this study was to provide an analytic and institutional foundation on which to develop a program for local government reform, and the effort accomplished that objective The 69 page report – which reflected extensive discussions with officials in the Ministry of Finance and in the governorates, and analysis of as much data as the project team could collect – documented in considerable detail the financial structure of local governments in Egypt This study, more than any other, influenced the ultimate outcome of the LGFMS, when USAID considered whether or not to move the study to a second stage Important findings that emerged from Dr Wozny's study included the following

- A governorate has no control over the size of its budget The personnel budget for each governorate is decided by the Central Agency for Organization and Administration, the allocation of investment resources is determined by the Ministry of Planning and the parent ministries and the allocation of current nonpersonnel spending is decided by the Ministry of Finance
- There is no linkage between the amount of revenue raised locally and the amount of local spending allowed Even if the governorates were given the authority to raise the rates of local taxes and fees, they would have little incentive to do so because any resultant revenue gain would be offset by a reduction of their subsidies Conversely, if a governorate does not meet the local revenue target set by the Ministry of Finance, it is not penalized by having its spending allocation reduced, the deficit-filling subsidy is simply increased to make up the difference
- The standard analysis of intergovernmental transfers is not applicable to the Egyptian fiscal system The Ministry of Local Administration purportedly allocates certain revenues to the governorates on the basis of socioeconomic criteria These allocation decisions are irrelevant, however, because the Ministry of Finance makes up any difference between a governorate's spending allocation and all of the revenues available to that governorate

- The governorates do prepare budget proposals but their purpose is to show how spending allocations and revenue responsibilities will be shared among the subunits The fiscal relations between the subunits and the governorates are a mirror image of the relations between the governorate and the central government Local budget deficits are filled by the local unit's shares of the subsidy that the governorates receive For this reason, the assignment of particular revenue items to the cities or villages is irrelevant under the current structure

- Revenue estimates within the governorate budgets are not estimates of anticipated collections, and spending ceilings, but rather as benchmarks set by the Ministry of Finance in a revenue-sharing arrangement that is intended to give the governorates some incentive to increase collections each year This arrangement does not provide a sustained incentive because increased collections simply lead to higher benchmarks the next year

BUDGET FORECASTING

If local governments were to be given greater autonomy, it was understood that they would have to have the ability to develop accurate projections of revenue and expenditures Accordingly, one of the studies looked at issues associated with current-year and multi-year budgeting, at analytic methods typically used in budget forecasting, and the challenges for introducing more analytic budget forecasting methods in the governorates and in the Ministry of Finance in Egypt

The report that emerged from this work, "Local Budget Forecasting in Egypt Problems and Potentials" was prepared by Dr James Wozny, and built on initial work done by Dr Michael Wasylenko, a short-term advisor to the LGFMS The project report was finalized in March 1992 Recommendations from this effort included the following

- Improved forecasting techniques could be used to their greatest effect if the GoE were to adopt goal-oriented budgeting To do so, the line items on the expenditure side of the governorate budgets would need to be rearranged into a program structure (e g , fire protection, police protection, primary education, etc) Once that framework was established models and techniques could be developed to forecast the capital, personnel, and non-personnel recurrent expenditures required to achieve target service levels The budgeting of these three types of expenditures should be done in a coordinated manner, not separately, as in current practice

- Constant service projections could be developed for each spending category, which representing an estimate of the cost of providing the current package of services in some future year This concept represents a better benchmark for evaluating budget options than the current level of expenditures because it incorporates the effects of population and price increases on the cost of maintaining current service levels This constant services baseline would serve as a starting point for developing policy recommendations for short- and long-term budget plans

- The appropriate location for expenditure forecasting models would depend on how much discretion local officials would have over spending in the future If those officials are not going to have any more authority than they currently have, then there is no need for an independent expenditure forecasting capability at the governorate level In that case the logical place to establish the expenditure models would be within the Governorate Budget Section of the Ministry of Finance

- If the governorates were to be given responsibility for balancing their own budgets, then they would need to be capable of forecasting locally collected revenues more accurately than they do now The choice of forecasting techniques should be determined by the characteristics of each individual revenue item, and be developed consistent with GoE projections of population, inflation, real income growth, and other relevant variables
- The Ministry of Finance would also have to provide the governorates with three-to five-year forecasts of the transfers and shared tax revenues that they could expect to receive

The study was discussed with senior officials in the Ministry of Finance and in the governorates, with the expectation that if the LGFMS moved to a second phase the project would support procurement of computers, technical assistance in developing specific budget forecasting models, and in training of government staff

PROPERTY TAXATION

Because of the importance of property taxation in the revenue systems of most local governments, this revenue source was analyzed in considerable detail by the resident advisor for the LGFMS Dr Robert Firestine His work built on a 1990 report that was prepared for the Public Finance Administration Project by Dr Daniel Holland The paper had two specific purposes

- To present a comprehensive and detailed description of the process of taxing property in Egypt, and
- Based on the above, to present a feasible course of action for reforming Egypt's property tax system as an integral component of a local government reform program

The study documented a number of problems with property taxation in Egypt that would have to be addressed if it were to become a source of revenues for local governments in Egypt These problems included the following

- Property tax rates, and therefore revenues, are very low Property taxation in Egypt constitutes a much lower share of total tax revenues than in most other countries
- Property surveys and registration are incomplete and inaccurate, making it difficult to identify both property and its owners
- Property valuations occur only every ten years, and appear to be highly variable across jurisdictions
- Payment compliance is relatively low, enforcement relatively lax, and penalties inadequate

225

To address these and other identified problems with property taxation in Egypt the study outlined a number of potential reforms that would improve the revenue yield equity, and administration of the property tax These included

- Consolidate legislation for the three major property taxes in Egypt (the Agricultural Land Tax, the Buildings Tax and the Vacant Land Tax [subsequently repealed in 1996]) A draft law attempting such consolidation was in fact under discussion as this study was being concluded, though no action has been taken
- Improve valuations by surveying and revaluing real estate taxes every five years instead of every ten years and develop computer-based procedures to improve the uniformity of valuations across the country
- Redesign, test and introduce new basic documentary records on real estate properties and take actions to improve ownership registration of real property At the same time, assess the possibility of more accurate and up-to-date cadastral maps for use in property taxation
- Automate real estate tax billing and collection procedures so as to increase tax collections through more timely payment of taxes and more effective pursuit of tax delinquency

In developing these potential reforms of property taxation in Egypt, it was understood that implementation would require both a policy-level commitment to increasing the role of property taxation in Egypt and substantial resources to modernize and improve administration

CONCLUSION

Two major conclusions emerged from the 18-month effort under the LGFMS First, it became increasingly apparent that the GoE was not prepared in the immediate future to move forward with decentralization of government Indeed, six years have passed since the study was completed and there has been no significant movement towards decentralization during this period This may have reflected in part an issue of priorities on the part of the GoE, and that other reforms then (and now) underway took precedence In part, it may have reflected politics of the region, and a GoE assessment that this was not the time to move forward with decentralization But as the project progressed, the interest of the counterpart, the Local Development Policy Committee lessened, and the visibility and importance of the project to the GoE seemed to diminish

Second, it was apparent that there was much that could usefully be done to improve the financial infrastructure as it related to local government finance And while the GoE had by its actions and inactions made it clear that government decentralization was not an immediate priority, there was an argument in favor of moving forward with a modernization initiative Such reforms could help establish a local government foundation that would allow local governments to better manage their current fiscal responsibilities and position them to be able to have the capacity to take on greater fiscal responsibilities in the future This would address the argument sometimes made by senior GoE officials that government responsibilities need to be centralized because local governments lack the required capabilities to manage their own finances

Working with counterparts at USAID, and in support of this second point, the project team developed a detailed program for developing an improved infrastructure on which local government decentralization could take place at some time in the future This program included

- Development of a computerized management information system within the finance Directorate of each governorate, and a data analysis unit within the Governorate Budget Section of the Ministry of Finance
- Technical assistance to improve property taxation in Egypt, with the longer-term goal of establishing it as a source of local government revenue
- Improvement in the structure and administration of the principal existing local revenue sources, including taxes and fees on motor vehicles and drivers, local fees on commercial and industrial activities, and a wide variety of service or user fees

In May 1992, a meeting was held with Mission Director Henry Bassford in which the results of the LGFMS were presented It was noted that, in the view of the project team, government decentralization was not an immediate priority of the GoE, the optimism that had emerged from the initial discussions with Prime Minister Sedki on this issue had diminished The project team noted, however, that further investments in support of local government reform could productively be made, if the Mission wished to provide support to improve local government financial management Such improvements, it was noted, would have current benefits and, at the same time, provide a stronger fiscal structure on which decentralization could be advanced at some future time

At this meeting, the Mission Director concluded that USAID had in the last decade devoted substantial funding to support local government development and reform, and that based on the outcome of the study, further support was not as high a priority as other initiatives currently being considered by the Mission With that decision, the LGFMS was brought to a quick conclusion, and subsequent phases originally envisioned were not pursued

220

IX CONCLUDING PERSPECTIVES

ASSESSMENT OF THE PROJECT

The Public Finance Administration Project (PFAP), by all accounts, has been successful when viewed from the differing vantage points of the project team, the Government of Egypt (GoE) counterparts, the international organizations involved in Egypt (e g , the IMF and the World Bank), and, we think, USAID As outlined in considerable detail in the prior chapters, the following occurred under the project's aegis

- A broad-based sales tax was introduced
- A Global Income Tax was introduced to replace the cumbersome schedular tax system that previously existed
- Automation of the tax departments has advanced considerably
- Improved administrative procedures and processes are in place, operating from improved organizational structures
- High quality training was institutionalized through the development of modern training facilities, the development of new courses, and new approaches to training
- The Tax and Sales Tax Departments now have Economic Research Departments that can provide continued support to their respective Commissioners and to the Ministry of Finance

These accomplishments have contributed significantly to improved fiscal performance in Egypt, which in turn has contributed to an improved overall economic setting, as discussed in Chapter II and as highlighted in the table below As shown in the Appendix tables that accompany this chapter, tax revenues have increased from 11 5 percent of GDP when the project began, to about 17 percent today In essence, it has established a fiscal infrastructure that will be self-sustaining and that is supportive of privatization, private sector development, financial sector reform, and general globalization of the Egyptian economy The returns to Egypt from this project investment will be considerable and long felt

KEY ECONOMIC INDICATERS
(Percent)

	Real GDP Growth	Inflation	Unemployment	Budget Deficit as Share of GDP
1990/91	3 6	14 7	8 4	17 7
1991/92	1 9	21 1	9 2	5 4
1992/93	2 5	11 1	10 1	3 5
1993/94	3 9	9 0	9 7	2 1
1994/95	4 7	9 4	9 5	1 2
1995/96	4 9	7 3	9 1	1 4
1996/97	5 3	6 3	8 8	1 0
1997/98	4 7	4 0	8 9	1 0

Against this backdrop of overall success, it is useful to assess what has worked well, what perhaps has worked less well, and to assess what lessons can be learned from this project and applied to others in Egypt, or to others with similar objectives in other parts of the world This review is organized into four sections the general project setting and structure, the factors influencing policy reform, assessing alternative approaches to computerization, and creation of new units like the ERDs

GENERAL PROJECT SETTING AND STRUCTURE

There are a number of noteworthy areas that influenced the degree of success of the project, most of a positive nature

- *Project Buy-In from Counterparts* There is no question that the Minister of Finance was, from the beginning, serious about moving ahead with a major tax reform agenda, as history bears witness If the GoE were not predisposed towards introducing reforms, the chances for success would have been very limited But this predisposition did not, by itself assure a successful outcome To those involved in the project from the outset, it was apparent that the Minister and other GoE counterparts had to develop a relationship of trust with the project team before they would allow them access to information and data needed to do their work Prior USAID technical assistance to the Ministry, provided under a PASA agreement with the IRS, had been primarily related to training and procurement of equipment, and was generally "low profile " Integrating a team of advisors into the inner counsels of the Ministry was, therefore, essentially a new experience Not surprisingly, it took some time to gain acceptance and trust before this integration process occurred, and even then it occurred more quickly in some areas than in others There were, in the eyes of the project team three factors that accelerated the pace at which this acceptance occurred

  - ◊ Barents brought the very best public finance economists and tax administration professionals to Egypt from the outset, some of whom were known to the Minister from prior work in Egypt This recognized degree of excellence provided credibility that the project could in fact provide useful input to the Minister and others in developing a tax reform and modernization program in Egypt

  - ◊ The openness of the GoE counterparts to receiving support determines to a significant degree the extent to which technical assistance can be successfully provided In the initial years of the project, Minister Razaz accepted the project team as his personal advisor, and worked closely and personally with the advisors on the policy reform initiatives At the same time, Commissioner Mahmoud Ali brought the project team into his inner counsel within the Department, it was through his personal efforts that the project team worked as an internal part of the Department rather than as an outside consultant to it In the Tax Department integration occurred more slowly, but achieved a similar status to that outlined above for the Sales Tax Department, when Commissioner Fakhri Saad el Din Awad took over leadership of the Department

  - ◊ Finally support from USAID was critical to project success, including but not limited to the strong supporting role of the Project Officer The Project Officer facilitated access to

229

the Minister and Commissioners from the outset of the project, promoted project-led initiatives to the GoE, and helped to resolve problems between the project team and the counterparts when they arose The goal of any project should be to have the contractor the government counterpart, and USAID working in harmony toward a common objective, and that goal was to a very large extent achieved on this project, to the considerable credit, we believe, of all involved

- *Project Management from within USAID* The project had the benefit of continuity of project oversight by a single Project Officer at USAID, and one who was known and respected by the Minister Razaz and later by Minister Gharib, as well as the different tax commissioners Because tax reform involves highly sensitive issues, it was of great benefit of the project to have someone of Ms Iman Aly El Shayeb's stature to lead and provide support to the project for its full duration Without question, project access to the Minister and his senior officials were greatly enhanced by her active efforts She also provided regular counsel to the Chiefs of Party on how to most effectively get things done in Egypt, just as she provided the internal project management within USAID that was required to support the project
- As has been noted earlier, USAID had the foresight to realize that it was important at the outset for the GoE to understand that the advisors provided under the project were to function as advisors to the Ministry and were not there to promote what might have been seen as a U S Government-led agenda Rather, USAID provided the project support and counsel, and supported the initiation of reform and modernization through frequent contact with top GoE officials, but did not interfere in the development of the comprehensive reform itself
- *Project Scope* From the outset, the project benefited from its broad scope, which has included policy reform together with administrative reform and modernization The emphasis initially on policy reform, with support for administrative reform and modernization, was also correctly structured Those who designed the project deserve considerable credit for their foresight in developing this overall structure The only change in the project structure that, in the view of the project team, would have enhanced its overall success, would have been to include all components, including the customs administration component, under a single project management structure Under a single management structure
  - ◊ Greater coordination of the collection of sales taxes on imports, roughly half the total, would have been possible when the General Sales Tax was introduced,
  - ◊ Inter-department coordination in support of improved compliance, which gained momentum in 1996, would have potentially been enhanced,
  - ◊ The efforts to develop new computer applications, and new taxpayer identification systems, could have been coordinated from the beginning with the Customs Department,
  - ◊ The Customs department could have received training and support in building its own ERD, and they could have had access to the indirect tax model that was developed during the project, and
  - ◊ Support to training of Customs Department personnel could better have been provided using many of the same instructors and courses that were used for the other departments

  In essence, there were economies of scale to be realized by placing the entire project under a single management structure While the Chiefs of Party of the two project components attempted to coordinate and work together each had their own set of project priorities, and the larger component managed by Barents did not have the contractual scope to provide support to the Customs Department that was potentially available at relatively low cost

- *Logistical issues* At the time that Barents was selected to lead the project, the Minister indicated his intention to find space within the Ministry of Finance for the project team By the time the project started up a few months later the decision had been made that space in the Ministry was not available, and that alternative space would be provided by the Ministry at a site more than a mile from the Ministry and the Tax Department With USAID's considerable active support at every stage of the process, an alternative site was identified and completely renovated in the GoE's Property Tax building, which was only a short walking distance from both the Ministry of Finance and the Tax Department This location, while less desirable than being in the Ministry, was generally favorable because it provided proximity and closer working relationships than otherwise would have existed with Tax Department officials and staff (The Sales Tax Department is located in Nasr City, several miles from the Ministry, so it was not possible for the Project Office to be close to all of its GoE counterparts The close project working relationship with the Sales Tax Department was fostered early on from work involved in preparing for implementation of the General Sales Tax) USAID should, as it did in this project, work to provide the best positioning possible for its projects It can be an important factor in the project's overall success Ideally, such issues could be settled when projects are established, and when the agreements are reached between USAID and the Ministry receiving the technical assistance, rather than after the contractor arrives

Factors Affecting Policy Reform

Policy reform is often times the *raison d'etre* for donor support for projects such as the Public Finance Administration Project Given the importance of policy reform in technical assistance projects such as this, it is useful to assess what contributes to successful policy reform

- *The counterpart must recognize the need for reform* It is difficult, though admittedly not impossible, for outside advisors to convince decision-makers that reform is needed if they believe otherwise If there is no predisposition towards reform, establishing a project premised on policy reform would, at best, be a high-risk venture If there *is* a predisposition to reform, then advisors can provide valuable input on the kinds of reforms would be most desirable, and they can facilitate and potentially help to accelerate the actual implementation of these reforms once decisions are reached This is in fact what transpired with the project, first, and most notably, with the implementation of the General Sales Tax, and later with the implementation of the Global Income Tax

- *The quality and credibility of the advisors is a key element of success* While any technical assistance project requires talented, culturally sensitive professionals, in the area of policy reform this need is ever more critical There is a natural reluctance on the part of high level officials to think that foreign advisors can understand the unique problems of their country and provide useful input to their decision-making It is only if those advisors are known to have provided such counsel in other countries, and can quickly establish a rapport based on demonstrated expertise, that such advisors can be accepted into the inner counsels of policy

231

making Further the advisors must be seen as serving the counterparts not advancing any particular "foreign agenda

- *There is no substitute for good quantitative analysis* Making good decisions requires good empirical analysis, and justifying those decisions, once made, also benefits from such analysis The project team's work in developing analytically sound analyses of sales and income tax reform were critical inputs to the policy making process and to later justifying those policies to the public (as well as to the World Bank, the IMF and others) It was prudent for USAID to include support for this analysis in the Public Finance Administration Project and it would be prudent to provide comparable support in projects of similar scope

- *Some reforms require an incubation period* As noted in this report, some recommenced reforms were not enacted as part of the two major reforms in 1991 (GST) and 1994 (Global Income Tax) Nevertheless, the project recommendations planted the seeds from which future reforms could grow The taxation of interest was addressed in 1998 The proposal to eliminate Discounts and Additions is now before the People's Assembly as is a legislative proposal to allow for full crediting of capital goods under GST Accordingly, even as the project ends, it is reasonable to believe that its impact will continue to be reflected in the legislative process for years to come

Assessing Alternative Approaches To Computerization

Technical assistance in support of computerization is a component of many projects funded by USAID and other donors, just as it was a major component of the Public Finance Administration Project Among the observations that have emerged as a result of the project team's work in this area are the following

- *Be open to different approaches to computerization, depending upon the specific circumstances that exist* As discussed in Chapter VI, two alternative approaches were followed in the two counterpart departments being supported by the project In the Sales Tax Department, the project initially did much of the systems development work, and helped to "jump start" computerization in the Department In the Tax Department, which already had a data processing unit, the project served primarily in an advisory role Both approaches worked, and fit the specific circumstances that the project faced USAID's support of this flexible approach was prudent in this project, and it is likely to be appropriate in other projects as well

- *Do not procure too soon* The GoE counterpart placed great pressure on project leadership and USAID, almost from the very beginning, to procure computer hardware and software very quickly, before in fact the specifications had been established for how this computer technology would be used There are at least three reasons for resisting such pressures, as in fact was done on this project

    ◊ It is impossible to procure the best designed equipment without knowing the application to which it will be applied In an environment where major reforms are underway such as the introduction of the GST, the specific nature of those reforms needs, to be understood first

232

◊ If the applications have not been developed the computer hardware and software will "depreciate" (and depreciate rapidly given the pace at which computer technology is advancing) while the applications are under development

◊ Usually, there are other pre-requisite actions that need to be taken by the counterpart, such as site preparation, that takes time and needs to be completed prior to introduction of computer technology in order to preserve the equipment purchased

- *Support extensive training* Learning to use computer technology requires extensive training, often starting at a very basic level Classroom training, often the starting point, needs to be reinforced by on-the-job training, and then generally followed by further and more advanced classroom training As referenced in Chapter VI, this project provided extensive training, both by the project team and by local firms, and every training dollar spent was a dollar well spent

- *Allow adequate time for any computerization effort* Introducing computer technology is, even in the most ideal circumstances, a time-consuming task In developing and emerging-market countries, circumstances are seldom if ever ideal Sites must be prepared if the computer technology is to be adequately maintained (a major task under this project) Software development is extremely time consuming, and is complicated further when using different alphabet character sets Training is essential and takes time And the procurement process, properly done as it must be under USAID projects, can be time-consuming

Establishing Economic Research Departments

Ironically, while many of the lead advisors to the Public Finance Administration Project have lead economic research units in the United States, the task of establishing and training comparable units in Egypt proved to be one of the biggest challenges to the project Succinctly stated, it did not occur easily, and in once case – the ERD for the Ministry of Finance – the unit that was established had only a limited longevity The "lessons learned" from this experience are, in retrospect, not surprising, but worth noting They potentially apply not only to ERDs but also to the establishment within a Ministry of any unit that is new in concept and scope

- *Identifying someone who can successfully lead the new unit can be a problem* The Departments did not have senior staff with advanced training in economics and quantitative methods, and recruiting such a person was difficult In such circumstances, extensive training is required to develop the unit leader The same can be said about the unit staff, since it is difficult for the government to find and recruit professionals with strong backgrounds and training in quantitative analysis Such training is a time-consuming process The development of the unit leaders would be enhanced by an early tour of research units in the United States, such as exist at the U S Treasury, the U S Congressional Budget Office, and state revenue departments, so that they could see such units in action and better understand their mission

- *Department leadership needs to be trained on what to expect from the group* New units like the ERDs will only be successful if used Commissioners and other senior leaders in the department need to understand the purpose and role of the ERD, the equivalent of a new technology in Egypt, and to promote the role of the unit and help it integrate its activities into those of the department It is not enough only to train the ERDs

- *Time and training are required* As with computerization, establishing new units and getting them integrated into the department will necessarily take time In the case of the Public Finance Project, it took time to sell the concept, then recruit the staff, and then begin a lengthy training process, by the end of the project, modeling and qualitative analysis were institutionalized in both departments Nevertheless, the ultimate success will only be able to be measured when the project ends and the units establish their ability to survive and be successful without continuing project support

CONCLUDING NOTE

All who have participated as members of the project team on this important project have appreciated the opportunity to work in Egypt, to be an integral part of the departments with whom they have worked, and to be able to work in partnership with USAID to accomplish the project objectives

If, as expected, USAID provides funding for follow-on work in support of tax reform and modernization in Egypt, it is sincerely hoped that this report will provide a valuable reference to those who follow in this project's footsteps

234

APPENDIX IX-A

Table IX-1 Composition of Tax Revenues
(LE Millions)

Tax	1989/90	1990/91	1991/92	1992/93	1993/94	1994/95	1995/96
Corporate Tax	2,284	3,848	6,895	8,180	8,752	8,696	9 704
Individual Income Taxes	1,837	2,289	3,101	2,934	3,251	3,438	4,003
Sub Total	**4,121**	**6,137**	**9,996**	**11,114**	**12,003**	**12,134**	**13 707**
Inheritance/Estate Taxes etc	7	6	5	8	12	21	24
Stamp Duties	1,050	1,377	1,839	2,067	2,657	2,874	3,074
Consumption Tax/general sales tax	2,874	3,373	6,324	7,191	8,080	9,333	10,450
Customs Duties	2,536	3,000	4,588	5,009	6,120	7,017	7,911
Other Tax Revenues	500	530	1,534	1,945	2,501	2,900	3,083
TOTAL	**11,088**	**14,423**	**24,286**	**27,334**	**31,373**	**34,279**	**38,249**
GDP at Market Prices	96,138	111,244	139,102	157,260	175,000	200,408	229,473
Tax Revenues as a percentage of GDP	11 5	13 0	17 5	17 4	17 9	17 1	16 7

Sources Tax Department, Central Bank of Egypt Annual Reports and World Bank

Table IX-2 Composition of Tax Revenues
(Percent)

	Income Taxes	Consumption Taxes	Trade Taxes	Other	Total
A As percent of GDP					
1989 / 1990	4 3	3 0	2 6	1 6	11 5
1990 / 1991	5 5	3 0	2 7	1 7	13 0
1991 / 1992	7 2	4 5	3 3	2 4	17 5
1992 / 1993	7 1	4 6	3 2	2 6	17 4
1993 / 1994	6 9	4 6	3 5	3 0	17 9
1994 / 1995	6 1	4 7	3 5	2 9	17 1
1995 / 1996	6 0	4 6	3 4	2 7	16 7
B. As percent of Total Tax Revenues					
1989 / 1990	37 2	25 9	22 9	14 0	100 0
1990 /1991	42 6	23 4	20 8	13 3	100 0
1991 / 1992	41 2	26 0	18 9	13 9	100 0
1992 / 1993	40 7	26 3	18 3	14 7	100 0
1993 / 1994	38 3	25 8	19 5	16 5	100 0
1994 / 1995	35 4	27 2	20 5	16 9	100 0
1995 / 1996	35 8	27 3	20 7	16 2	100 0

Source Central Bank of Egypt Annual Reports, Ministry of Finance and World Bank

ADDENDUM A

EXHIBITS OF PFAP PERSONNEL

PROJECT STAFFING

1st Resident In-Country Advisors

JOHNSON, Darwin	Engagement Managing Director
	Chief of Party -- Phase I
NESTER, Howard	Chief of Party -- Phase II, Year 1
GORDON, Arnold	Chief of Party -- Phase II, Years 2 & 3
CLAYTON, Richard	Chief of Party -- Phase II, Years 3-6
	Deputy Chief of Party, Income Tax -- Phase II, Years 2 & 3
PARSONS, David	Chief of Party – Phase II, Year 8
	Deputy Chief of Party, Sales Tax – Phase II, Year 7
BALDWIN, John	Deputy Chief of Party, Income Tax, Phase I
NEAL, Ken	Deputy Chief of Party, Computerization -- Phase II, Year 1
SWAN, Carol	Project Manager, Phase II, Years 1 & 2
AHMAD, Naseer	Computerization
CUNLIFFE, Bernard	Sales Tax
FIRESTINE, Robert	Local Public Finance
GARRETT, Jerry	Computerization
GLENNIE, Neil	Computerization
HERNANDEZ, William	Computerization
HILL, Ruth	Computerization
KENNEDY, William	Training
O SULLIVAN, Tony	Sales Tax
PALMER, Mike	Computerization
SETTER, James	Sales Tax
WEERARATNE, Daya	Income Tax
WEERASINGHE, W	Income Tax
WHITEHOUSE, George	Training

237

2nd Short-Term In Country Advisors

Analysis of Policy

BIRD, Richard	Chief Policy Advisor
BRANNON, Jere	Deputy Policy Advisor
ADAMS, Richard	Agriculture
ALM, James	Wage Taxation
BAHL, Roy	Fiscal Decentralization
BREAN, Don	International Income Taxation
CNOSSEN, Sijbren	Sales Taxation
COX, Gordon	The Egyptian Indirect Tax System
DUE, John	Excise Taxation
FOX, William	Revenue Estimating
GALPER, Harvey	Chief Income Tax Policy Advisor
HART, Thomas	Development Duty, Social Security Duty
HOLLAND, Daniel	Property Taxation
MARTINEZ, Jorge	Taxation of Trade
McLURE, Charles	Tax Policy in Centralized Economies
MORROW, Arthur	The Egyptian Indirect Tax System
MURRAY, Mathew	The Hard-to-Tax Sector
OLDMAN, Oliver	The Legal Setting in Egypt
PERRY, Guillermo	Energy Taxation
SANDFORD, Cedric	Inheritance Taxation
SCHROEDER, Larry	Intergovernmental Fiscal Relations in Egypt
STACEY, Ken	Survey of Customs Administration
THIRSK, Wayne	Corporate Taxation
WAIDYASEKERA, Harry	The Use of the Banking Sector in Tax Collection
WASYLENKO, Mike	Local Public Finance
WOZNY, James	Local Government Finance
ZODROW, George	Taxation of Capital Income

Tax Modeling

BECKWITH, Stewart	Corporate Income Tax
GALGINAITIS, Steve	Corporate Income Tax
GREANEY, Francis	Indirect Taxes
MADRIGAL, Sergio	Individual Income Taxes
MELHEM, Rita	Individual Income Taxes
MIZRAHI, Lorris	Indirect Taxes
NEWLAND, Ned	Corporate Income Tax
VASQUEZ, Thomas	Chief Modeling Advisor

Indirect Tax Administration

COX, Gordon	Overview of Consumption Tax Administration
FELLINGHAM, Derek	Sales Tax Implementation
FOX, Norman	Audit Management and Computerized Audit Selection
MORROW, Arthur	Sales Tax Implementation
STACEY, Kenneth	Overview of Customs Administration
THWAITE, Kenneth	Sales Tax Training

Income Tax Administration

ABDEL AZZIM, Hamdy	Egyptian Tax Law
AUSTIN, Oakley	Information Document Processing
FORST, William	Tax Department Organization
GNAZZO, Edison	Arab Tax Organization
HUSSEY, Ward	Legislative Drafting
KAMEL, Fakr El Din	Egyptian Tax Administration
RAMOS, John	Tax Department Organization

General Tax Administration

HOYLE, Charlie	Collection Procedures
MAY, Tom	Forms Design and Use
PHILLIPS, Larry	Taxpayer Assistance
WELLESLEY, Tim	Anti-Tax Evasion Procedures and Organization Training

Training

BIRDSALL, Orion	Course Design and Development
CUMMINGS, John	Training
FITZMAURICE, Frank	Audio Visual Production Techniques
SHARER, Scott	Teleconferencing and Training Equipment
WILLIAMS, William	Training

Organization and Management

AGRESTA, Bob	Basic Management
KANE, Michael	Strategic Planning/Management By Objectives
RUSSO, Phil	Career Management Programs
GOLDBERG, Stanley	Tax Department Organization

Computerization

EMDADI, Mehdi	Telecommunications Networking
LANE, Malcolm	Chief Computerization Advisor
CLARK, Conrad	Technical Computer Documentation
EMDADI, Mehdi	Data Communications
BAIAD, Anthony	Analysis of Year 2000 Problems

Project Administration and Management

SWAN, Carol	Overall Project Administration
STAADT, Jeff	Project Administration
OROSCO, Hugh	Project Administration
DAVIS, Patricia	Project Administration
CHOW, Blanca	Project Administration
MAXEY, Charlotte	Editor, Comprehensive Tax Reform Program

3rd Local Staff

Computerization

EL AFENDI, Ahmed	Income Tax Systems Development
EL ASHRY, Amal	Sales Tax Systems Development
EL HANAK, Hala	Sales Tax Systems Development
EL MARAKBY, Randa	Data Communications
KHALEK, Abdel	Systems Installation
OMARA, Badr	Systems Development and Installation
SALAMA, Magda	Sales Tax Systems Development
YOUNISS, Dalal	Sales Tax Systems Development

Project Administration

HEGAB, Yehia	Cairo Office Manager
ALI, Mohammad	Economist & Accountant
FAWY, Ahmed	Procurement Specialist
NOFAL Khaled	Procurement Specialist
FARID, Moneim	Office Staff
HASSABALLAH, Gamal	Office Staff
DIAB, Adel	Driver
EL MAHMOUDI, Ismail	Driver
HAMED, Mohammad	Driver
RAOUF, Abdel	Driver
SALAMA Mossad	Driver
SALAMA Atef	Driver

Translation

HELMI Muhammad	Senior Translator (and Cairo Office Manager 1996-98)
FANGARY, Maha	Translator
HADDAD, Noha	Translator
KAPTAN Ghada	Translator
KASSEM, Samar	Translator
LIHETA, Sherine	Translator
NAGATI Laila	Translator
SABRY, Samaa	Translator

Economic Analysis

SHALTOUT, Hafiz	Economist
FARID Mohammed	Economist
MORSEY Hanan	Economist

Secretaries

TOUJARIAN, Vivian	Chief Secretary
AHMAD, Nevine	Executive Secretary
CHART, Brigitte	Executive Secretary
GOHAR, Hala	Executive Secretary
HASSAN, Sherine	Executive Secretary
HUSSEIN, Hanan	Executive Secretary
SALWA, Mahmoud	Executive Secretary
SAMIR, Amal	Executive Secretary
SWEILLAM, Samia	Executive Secretary
TAHA, Hala	Executive Secretary
TALHA, Olifia	Executive Secretary
ZAKI, Amal	Executive Secretary

ADDENDUM B

EXHIBITS OF KEY PERSONNEL OF THE GOE

1 *Ministry of Finance Key Personnel*

Dr Muhamad El Razaz	Minister of Finance
Dr Mohei El Din El Gharib	Minister of Finance
Mr Hamdy Abd El Azim	Project Team and Direct Tax Advisor to the Minister of Finance
Mr Ahmed Abd El Radi Ismail	Indirect Tax Advisor to the Minister of Finance (Formerly Sales Tax Commissioner)
Mr Ramadan Mustafa	Indirect Tax Advisor to the Minister of Finance
Mr Ali Salam	Under-Secretary
Mr Muhamad El Kallaf	Manager of the Minister's Office, Ministry of Finance

2 *Sales Tax Department Key Personnel*

Mr Mahmoud Mohamed Ali	Commissioner (Formerly Director of the Central Department of Modernization Affairs)
Mr Mohamed Mahrous	Under-Secretary
Mr Hamdy El Marzouky	Under-Secretary
Mr Ramsis Gobran	Under-Secretary
Mr Mohamed El Yamani	

3 *Tax Department Key Personnel*

Mr Mohamed Fathi Abd El Baqi	Commissioner
Mr Usama Abd El Sadiq	Commissioner
Mr Fakhry Saad El Din Awad	Commissioner
Mr Mahmoud Shawki Omar	Under-Secretary
Mr Samir Hussein	Under-Secretary
Mr Lotfy Abdel Wahab	Under-Secretary
Mr Farouk Abd El Hameed Abu Shabana	Under-Secretary
Mr Mustafa Abd El Maksood	Under-Secretary (Organization)
Mr Farouk Abd El Moneim El Feheil	Under-Secretary
Mr Mohi El Din El Mohamedi	Under-Secretary (Information)
Mr Abd El Aziz Fatoh	Under-Secretary (Information)
Mr Farouk Shalabi	Under-Secretary (Evasion)
Mr Farouk El Shaarawi	Under-Secretary
Mr Fakhr El Din Kamel	Under-Secretary (Evasion)
Mr Gamal Gamgoum	Under-Secretary (ADP)

ADDENDUM C

LISTING OF PROJECT PAPERS

1 Index for PFAP Reports for 1990

No	NAME	SUBJECT
1	Gordon W Cox, Arthur C Morrow	Survey of Indirect Tax System January 1990
2	Kenneth Stacey	Survey of Customs Administration in Egypt January 1990
3	William Fox	Estimating & Tracking Revenues in the Ministry of Finance January 1990
4	Malcolm G Lane	Computerization of Tax Administration in a Developing Country January 1990
5	James Alm & Darwin G Johnson	Analysis of Taxes on Wages and Salaries in Egypt January 1990
6	Daniel Holland	Property Taxation in Egypt May 1990
7	William Hernandez & John Baldwin	Procurement of Computer hardware & Software June 1990
8	John Baldwin	Initial Training Recommendations of the PFAP May 1990
9	Matthew N Murray	Taxation of the Hard to Tax Sector September 1990
10	George Zodrow	Marginal Effective Tax Rates on Capital November 1990
11	John Baldwin	An Organization of Tax Administration for Arab Nations November 1990

244

2 Project Papers for 1991

No	NAME	SUBJECT
1	George Zodrow	Issues in the Taxation of Capital Income in Egypt June 1991
2	Charles E Mclure	Tax Policy in a World of State Ownership and Economic Distortions The Egyptian Case June 1991
3	John F Due	The Role of Excises and Related Taxes in the Indirect Tax Structure of Egypt July 1991
4	Richard H Adams	The Taxation of Agriculture in Egypt October 1991
5	George Whitehouse	A Proposed Training Program to Support the Comprehensive Tax Reform Program in Egypt November 1991

245

3 *Project Papers for 1992*

No	NAME	SUBJECT
1	George Zodrow	Investment Incentives in Egypt February 1992
3	Cedric Sandford	Taxation of Wealth in Egypt June 1991
4	Jorge Martinez	Trade and Tax Policy in Egypt June 1992
5	Sijbren Cnossen	Completing the move to a value Added Tax Egypt March 1992
6	Donald J S Brean	International Aspects of Taxation April 1992
7	W M P Weerasinghe	The Mobile Capital Revenue Tax April 1992
8	W M P Weerasinghe	The Addition and Discount System April 1992
9	Donald J S Brean & Richard M Bird	Taxation of Tourism in Egypt April 1992
10	Harvey Galper & Rita Melhem	Analytic Tax Models for Egypt June 1992
11	D Johnson - J Setter & Derek Fellingham	Sales Tax Implementation An Internal Review March 1992

4 Index for LPF Reports 1991-1992

No	NAME	SUBJECT
1	Roy Bahl	Fiscal Decentralization August 1991
2	Larry Schoreder	Intergovernmental Fiscal Relations in Egypt August 1991
3	James Wozny	The Current Structure and Financing of Local Administration in Egypt January 1992
4	James Wozny	Local Budget Forecasting in Egypt March 1992
5	Robert E Firestine	Property Tax Administration in Egypt May 1992

2461

5 Project Papers for 1993

No	NAME	SUBJECT
1	Skip Nester & Hafez Shaltout	Training & the Economic Research Department January 1993
2	H S Nester & T O Sullivan & N Glennie & G Whitehouse	Sales Tax Department Semi-Annual Report Mid-Year Review,1992-93 February 1993
9	D Johnson - S Nester & T O Sullivan	The Origins and Development of the General Sales Tax March 1993
11	A Gordon, T O Sullivan N Glennie & W Kennedy	Sales Tax Department Semi-Annual Report January to June 1993 June 1993
12	Richard Clayton	Taxpayer Examination and Assessment October 1993
13	Arnold Gordon	The feasibility of Utilizing The Banking System for Tax Collection in Egypt October 1993

5 Project Papers for 1994 and 1995

No	NAME	SUBJECT
1	KPMG Project Team	Sales Tax Department Semi-Annual Report July to Dec 1993 January 1994
2	Richard Clayton	Audit Activity in the Sales Tax Department January 1994
3	Richard Clayton	Review of the Sales Tax Central Department of Information March 1994
5	Howard Skip Nester	Diagnostic and Training Mission to the Economic Research Division
6	Internal Revenue Services	Strategic Business Plan FY 1994 and Beyond
7	KPMG Project Team	Sales Tax Department Semi-Annual Report January to June 1994 July 1994
8	Ken Neal	Sales Tax Department AFAS (Administrative and Financial Systems Plan) October 1994
9	James W Setter	Proposed General Sales Tax Debt Management - Subsystem October 1994
10	James W Setter	Performance Appraisal A Guide for Managers & Supervisors November 8, 1994
11	KPMG PEAT MARWICK The Policy Economics Group	Egypt Commercial and Industrial Profits Tax Model Technical Manual August 1994
12	KPMG PEAT MARWICK The Policy Economics Group	Egypt Wage and Salary Tax Model USER'S MANUAL 1994
13	KPMG Project Team	Semi-Annual Report June to December 1994
14	James W Setter	An Introduction to Registrant Services February 1995

24?

6 Sales Tax Department Computerization (GSTACS) Documentation

GSTACS Document Number	Authors (listed alphabetically)	Document Name	Page Count *	Available in English?	Available in Arabic?
GSD000	Neil Glennie	Version Control Log	5	✓	✗
GSD001	Neil Glennie Malcolm Lane James Setter	Requirements and Specifications	250	✓	✗
GSD010	Neil Glennie, Mohamed Helmi, Magda Salama	GSTACS User's Manual – June 1994	575	✓	✓
GSD012	Amal Ashry Bill Hernandez	Cashier Subsystem User's Manual	425	✓	✓
GSD015	Amal Ashry Bill Hernandez	Cashier Subsystem Technical Reference Manual	200	✓	✗
GSD020	Conrad Clark Neil Glennie	GSTACS Technical Reference Manual	1,100	✓	✗
GSD025	Amal Ashry Neil Glennie	Posting Report Error & Warning Messages	120	✓	✓
GSD030	Neil Glennie Mohamed Helmi	Ledger Statements Manual	40	✓	✓
GSD035	Amal Ashry Neil Glennie	Quick-Reference Data Input Manual	35	✓	✓
GSD040	Amal Ashry Neil Glennie	Assessments Manual	25	✓	✓
GSD045	Neil Glennie Dalal Younis	On-Screen Error and Warning Messages	250	✓	✓
GSD050	Randa El Marakby	Documentation Tool Manual	15	✓	✗
GSD100	Mohamed Helmi Ken Neal	GSTACS Configuration Management Plan	30	✓	✓
GSD110	Ken Neal	GSTACS Design Architecture and Systems Plan – March 1993	135	✓	✗
GSD120	Jerry Garett, Mohamed Helmi	Data Communication Plan – April 1994	70	✓	✗

250

GSD150	Neil Glennie	Media Transfer Options	5	✓	✗
GSD160	Neil Glennie Magda Salama	Additional Tax and Ledger Statements	25	✓	✓
GSD200	Neil Glennie	Development Standards Reference	35	✓	✗
GSD210	Mohamed Helmi Ken Neal	Quality Measures Handbook	75	✓	✓
GSD291	Dalal Younis	Data Entry Training Trainer's Guide	45	✗	✓
GSD292	Dalal Younis	Data Entry Training Data Entry Course	70	✗	✓
GSD293	Dalal Younis	Data Entry Training Data Entry Workbook	135	✗	✓
GSD294	Dalal Younis	Data Entry Training System Operator's Course	50	✗	✓
(Internal Use)	Naseer Ahmad	Operational Review July 12, 1993	15	✓	✗
		Total Pages/Documents	**3,700**	**20**	14

* English document page counts, unless document is only in Arabic Page counts are approximate

251

7 Tax Department Computerization Documentation

No	NAME	SUBJECT	English	Arabic
1	Naseer Ahmad	Database Administration	Yes	No
2	Ken Neal	ITACS Income Tax Administration Computer System Configuration Management Plan	Yes	Yes
3	Ken Neal	ITACS Design Architecture and System Plan	Yes	Yes
4	Ken Neal	ITACS Design Architecture and System Plan Appendices	Yes	Yes
5	Jerry Garrett	Data Communication Plan For the Income Tax Department	Yes	Yes
6	Naseer Ahmad	Quality Assurance	Yes	No
7	Randa Marakby	User Guide of the Current Account Card System		Yes
8	Naseer Ahmad	Sales Tax Economic Research Department Computerization		

257