

PDABH-838

**LOCAL DEVELOPMENT II URBAN PROJECT
FINAL REPORT**

Prepared for
USAID/CAIRO AND ARAB REPUBLIC OF EGYPT



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Prepared by
WILBUR SMITH ASSOCIATES

in association with

PUBLIC ADMINISTRATION SERVICE
DEVELOPMENT CONSULTING OFFICE

DELOITTE AND TOUCHE
ENGINEERING AND GEOLOGICAL
CONSULTING OFFICE

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December, 1992

Mr. John Rifenbark
Project Officer
LD II Urban
USAID/Cairo

Re: Contract No. 263-0182-C-00-8017

Dear Mr. Rifenbark,

In accordance with the provisions of our contract, we are pleased to submit 10 copies of our Final Report for the Local Development II Urban Project. The report has been amended to reflect USAID comments concerning the content and structure of the previously submitted final report.

We have enjoyed being of service to USAID and the Government of Egypt during this important technical assistance effort and we look forward to your continued consideration of Wilbur Smith Associates for future assignments in Egypt.

Respectfully submitted,

WILBUR SMITH ASSOCIATES

Richard E. Miller

Richard E. Miller
Sr. Vice President, Middle East

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Notes:

The following are some of the primary Benchmarks/Capacity Indicators which will be referenced in the text (the capacity of governorates/districts to plan, fund, implement, maintain and institutionalize is common to all):

- (i) BSIDS . The success of Project Planning, Contracting, Implementation and Tracking. Local Resource Mobilization. Computerization. Preparation of Reports. Cash Management. Project Maintenance. Operation of Projects. Preparation of Needs Assessments and Project Ratings.
- (ii) O&M . Construction to Program. Usage of Maintenance Centers. Maintenance of Maintenance Centers. On the road availability. Preparation of, and adherence to, Annual Plans. Income Generation. Completion of Road Maintenance Program. Introduction of computerization, Kardex and vehicle maintenance systems.
- (iii) SWM . Degree of acceptance. Establishment of offices. Success of small scale projects.
- (iv) OMED . Issue of decrees and establishment of offices. Staffing and skill development. Improvement of budget development process and revenue collection capabilities. Degree of commitment by governorates.
- (v) MIS . Issue of decrees and establishment of offices. Staffing and skill development. Commitment of governorates and growth of departments. Number of systems established. Success of peer training efforts. Degree of independent development and hardware procurement by governorates.
- (vi) LMU . Acceptance of concept and program through presentations and approvals of governors. Employment of local resource mobilization strategies, including cost recovery and income generation. Quality/effectiveness of both in-country and overseas training. Introduction of computerization for selected project implementation systems. Momentum achieved from project identification, implementation and sustainability.
- (vii) Training . Quality/effectiveness of training given. Number of courses and trainees. Functional usage of Roster System. Ability of Governorate Training Centers to work independently especially with respect to developing needs assessments, identifying performance gaps, defining affordable curriculum and keeping accounts. Degree of liaison/standard course development with other governorates. Ability to work with MLA. Common use of training centers.



**USAID / GOVERNORS CONFERENCE ON LOCAL DEVELOPMENT
II URBAN PROGRAM**



**SIGNING OF THE PROJECT AGREEMENT BY EGYPTIAN PRIME
MINISTER AND UNITED STATES AMBASSADOR**



TYPICAL LOCAL DEVELOPMENT II URBAN PROJECT PLAQUE



**DEDICATION OF LOCAL DEVELOPMENT II URBAN PROJECT BY
THE GOVERNOR OF GIZA AND THE DIRECTOR OF USAID IN
EGYPT**

Section 1

INTRODUCTION

1. INTRODUCTION

1.1 HISTORICAL BACKGROUND

Egyptian history for centuries has recorded a highly centralized governmental structure which has been influenced both by anthropological and geographic origins and by political factors. Egyptians were originally a homogenous people who frequently had to turn to each other for support in response to invaders or natural calamities, such as floods or famines. This group cooperation was also encouraged by geographical factors, such as the fertile Nile Valley which has a life support area small enough to favor effective central government control.

1.1.1 Movement to Democratic Participation and Decentralization

Recent Egyptian administrative theory, especially since the 1952 revolution, supported the idea that the state has the primary mandate for economic development and is responsible for meeting the basic needs of its people. Thus the 20th century witnessed the rapid evolution in Egypt of the concept that the machinery of government is an important instrument for the attainment of economic and social development, as well as for central control. On the other hand, there was also an increasing recognition that decentralization could act as a useful tool in attaining development needs and in promoting and implementing change. Consequently, by the late 1950s, the Government of Egypt (GOE) seriously began to consider the hypothesis that the application of a strong local government was an effective means of stimulating peoples' interest and concern in participating in government decision making processes.

By the beginning of the 1960s, major efforts were being made to address the basic service needs of the Egyptian population, including low income groups. These efforts included policies and programs to increase the decentralization of governmental authority and responsibility. A major purpose of these GOE efforts was to establish the institutional capacity to plan and implement local basic service development at the governorate, markaz or district, town and village levels. The establishment of the legal framework to increase this decentralization process was provided by a series of laws dating from 1960.

Through Law No. 124/1960, the Country witnessed the criterion of the first modern system of local administration. This law established a network of local administrative units. The Local Councils comprised a majority of elected members, as well as some appointed and ex-officio members representing various directorates and/or departments. This law was followed by a series of other laws, each introducing greater decentralization capacity into the system. These were Laws No. 57/1971, No. 43/1979, No. 50/1981 and No. 144/1988.

In accord with this GOE decentralization strategy, the United States Agency for International Development (USAID) in Cairo supported a series of projects to encourage and assist the decentralization process. The first official agreement initiating this effort was the Decentralization Sector Support Program (DSS). This program was viewed as the first stage of the Decentralization Sector Support I Program (DSS I) for which an agreement between GOE and USAID was signed in August 1981. However, work in some areas of DSS I had effectively begun in 1978.

Urban governorates and districts directly benefitted from three DSS I components:

- o The Neighborhood Urban Services (NUS);
- o The Local Development Fund;
- o The Decentralization Fund.

NUS was the urban component of the first stage of DSS I, and it was also the forerunner of Local Development II Urban (LD II Urban), which is the main concern of this report. Work on NUS ended in 1987 and encompassed a broad range of urban development services: from the development of basic infrastructure, to the building of new classrooms and health facilities; and from renovations of existing facilities, to providing new equipment for day care and community services centers. Egyptian local government units and private voluntary organizations (PVOs) established the priorities for these projects, which utilized an input of LE 100 million in funding and delivered outputs benefitting 16.5 million people through 3100 projects.

In January 1988, LD II Urban was initiated to build upon the successful efforts of NUS and its cooperative spirit was continued throughout the project-by-project implementation process.

1.1.2 Local Government Organization and Function

The governorate or province is the highest level of local government in Egypt. As shown in Figure 1-1, the six participating governorates in LD II Urban are Cairo, Alexandria, Giza, Qaliubia, Port Said and Suez. These governorates have a total land area of approximately 2,965 square kilometers and an estimated population of about 16 million.

Each of the urban governorates is divided into districts, the lowest level of urban local government. Under local government law, the districts are formal government units with prescribed functions and responsibilities. The LD II Urban structure incorporated 42 districts in its funding and technical assistance activities.

Urban Local Government in Egypt is characterized by the following aspects:

- o Popular Councils are installed by direct election at all levels of local government units for a four-year term of office;
- o each Popular Council elects its chairman, one or two vice-chairmen and the chairmen of its operating committees for a one-year period with eligibility for re-election;
- o the Popular Council is responsible for general policy and decision making matters vested them by law and defined in presidential decrees since the introduction of Law 145/1988;
- o Popular Councils have the right to question and request information only from governorate officials; they may no longer interrogate governors, local district chiefs or other executives, such as department heads, to determine responsibility for actions taken by them;
- o parallel to the Popular Council, an Executive Council has been organized in each local government unit to assist with administrative and financial planning to implement the Popular Council resolutions and decisions;

LDII Urban Project Locations



Figure 1-1

- o the Executive Council is comprised of appointed members who are chiefs of directorates and/or public service departments; it is presided over by the governor at the governorate level and by the district chief at the district level;
- o governors are appointed, transferred and removed from office by presidential decree, while other local unit chiefs are placed by ministerial orders;
- o all governors and unit chiefs are senior officials, often advanced in age and recruited from outside the local government area after finishing other careers.
- o with both appointed and career local government officials, the turnover rate is high; this situation has often posed constraints to the decentralization process, especially to the implementation and/or maintenance capabilities of certain development projects;
- o the Popular Council at the district level has many responsibilities prescribed under the decentralization laws; however, in reality, their functions are limited because of the uncertainty in responsibility delineation resulting from the evolution of local government systems and procedures; this, too, has made progress towards LD II Urban purposes difficult to regularize or attain.

Figure 1-2 shows a representative urban governorate organizational structure. District operations are organized in a very similar manner.

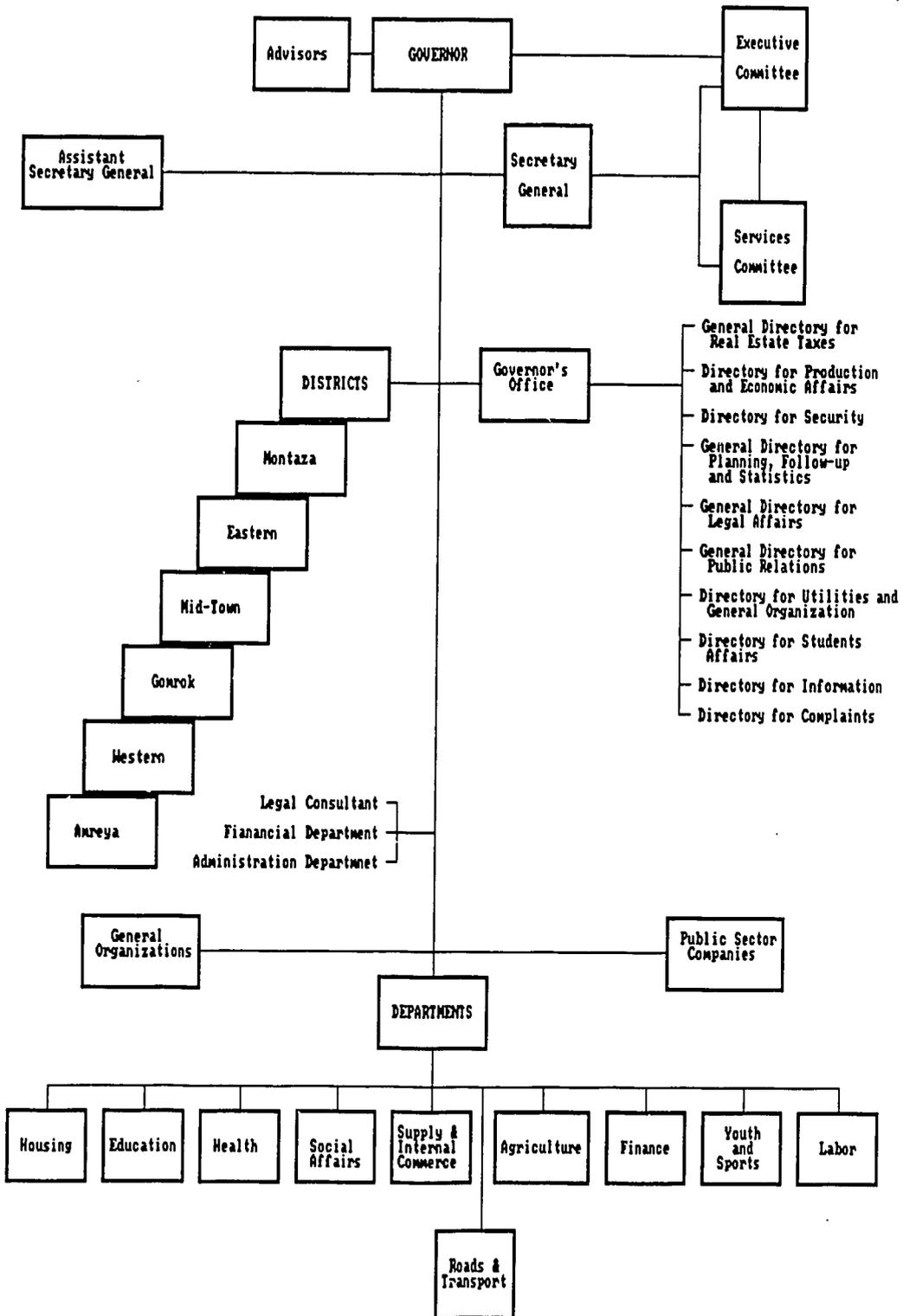
Since 1975, local government laws have attempted to expand local government functions, especially at the governorate level. For example, by decreasing district sizes, the number of districts in Cairo, Alexandria and Giza Governorates have been increased to facilitate more efficient administration and to make governing more manageable.

Furthermore, districts have been given a wide range of functions, although local government laws and presidential decrees have not clearly defined the distinction between governorate and district functions with regard to services. Part of this ambiguity stems from earlier legislation by which urban districts were given functions and responsibilities of markazes and towns, yet Cairo and Alexandria, which cities, are considered to be governorates as well.

The organization of district departments is similar to the organization of governorate directorates. In fact, district departments are considered branches of the governorate directorates, as Figure 1-2 has illustrated. However, in spite of the differences between one district and another in size, area and services availability, all are assigned the same functions, and the organization of their departments and offices is standardized.

Both districts and governorates have suffered from the same personnel problems: they are overstaffed, yet many available staff members are misassigned or poorly qualified, especially engineers, who are unequally distributed among the districts; motivation is minimal because salaries are low, assignments are not based on need, and equipment and supplies are not always available. These constraints in obtaining suitable local government personnel have impeded the decentralization process and delayed progress at the district level. For example, a large share of local decision making responsibilities, such as presenting projects for funding and implementation, has been transferred and delegated to governorate and district Popular Councils. In practice, however, it has been the Executive Council, not the Popular Council, that has had the capability to do the technical analysis work necessary to prepare and present a local project.

GOVERNORATE OF ALEXANDRIA
ORGANIZATION CHART



The tendency on the part of districts to defer to governorate agencies for the design and delivery of services for which they themselves lack the capacity and capability is enhanced by the long-standing general tradition of deferring to higher authority. Moreover, the greater availability of resources at the governorate level is reflected in the funding of its basic services infrastructure, a funding which greatly exceeds that of the district level. This, in turn, permits the governorate level agencies to attract the support of better qualified personnel. Although the duplication of the same basic service departments at the district level as at the governorate level was instituted to provide a framework for the eventual transfer of service delivery responsibilities to the districts, the lack of qualified personnel delayed meaningful transfer.

Consequently, as cited throughout this final report, the focus of LD II Urban has been to counteract the personnel constraints through intensive training and on-site technical assistance, and the bulk of its input was dedicated to the districts.

1.1.3 Local Development II Program (LD II)

The LD II Program was administered by USAID through its Cairo mission, and by GOE's Ministry of Local Administration. It was implemented primarily by governorates and local administrative units.

The Program had two components: Local Development II - Provincial (LD II - P), which dealt with matters pertaining to provincial local government units; and Local Development II Urban (LD II Urban), which dealt with matters pertaining to urban local government units.

The inception framework for both Program components originated in the work done in the USAID-supported DSS I Program. The framework of both the DSS I and the LD II Programs involved developing the capabilities of local government units to facilitate further transfers of decision making responsibilities from the central government. Both also provided similar forms of input to local government units to improve utilization and delivery of basic infrastructure services.

Under the terms of the LD II Program, the shifting of more basic public service functions and income generation responsibilities from the central government to various local government units is the most effective way in which local governments are strengthened. This decentralization effort focused on the hypothesis that the capacity to plan, deliver and maintain basic community services, such as schools, hospitals and libraries, is best addressed and implemented by those government units closest to the people they serve.

This hypothesis was the determining factor of the USAID sector goal to which the LD II Program contributed: to improve the quality of life of low income residents in rural and urban Egypt through the provision of basic services

LD II purposes were, therefore,

- o to improve and expand the capacity of local units to plan, organize, finance, implement and maintain locally chosen basic service projects; and
- o to improve the capacity of local units to mobilize local resources in order to sustain the provision of services.

In order to attain these purposes, LD II adopted an implementation strategy that stressed five themes:

- o decentralization of local government;
- o democratic participation;
- o capacity building of local institutions;
- o operation and maintenance of basic services;
- o public and private local resource mobilization.

To address these themes, LD II designed two delivery systems:

- o the Basic Service Delivery System; and
- o the Local Resource Mobilization System.

In this context, therefore, the LD II Program aimed at providing local government staff with experience in the planning and management of resources to implement and sustain local development projects. Input, through Block Grants to local government units and PVOs, was used to finance a decentralized planning process geared to improving and sustaining basic services, such as potable water, sanitation, roads and other municipal and village services.

1.2 LD II URBAN IMPLEMENTATION OVERVIEW

LD II Urban implementation was supported by a Technical Assistance Contractor Team. Wilbur Smith Associates was the prime contractor. Egyptian sub-contractor firms were Engineering and Geological Consulting Office and Development Consulting Group; American sub-contractor firms were Public Administration Service and Deloitte and Touche.

The implementation of LD II Urban involved numerous delivery strategies. These included responsibilities and functions of the GOE administration relative to LD II Urban; institutionalization activities stemming from the NUS component of the DSS I Program; and technical efforts representing a unique aspect of the overall GOE decentralization strategy.

1.2.1 LD II Urban Goal and Purposes

The component goal of LD II Urban was to further upgrade the quality of life of low income residents in urban neighborhoods by improving the administrative and operational efficiency within the institutional capacity of six urban governorates: Cairo, Giza, Qaliubia, Alexandria, Port Said and Suez.

Stemming from the successful work initiated by the NUS component of the DSS I Program, the purposes of LD II Urban were

- o to develop decentralized municipal management system and new technical functions in the six governorates; and

- o to strengthen the economic and financial analysis capabilities of local government staff in order to cope with the large number of capital investments under implementation.

Figure 1-3 represents the primary working relationships for the LD II Urban component. The component was implemented over a period of five years and comprised two phases.

Phase I was the Inception Phase. It was completed in the first six months of the implementation period and included

- o orientation seminars;
- o data base analysis;
- o work unit and staffing requirement analysis;
- o a diagnostic report.

Phase II was the Implementation Phase and was completed in the last four years of the LD II Urban implementation period. Major emphasis was on district level activities. Plans for the implementation strategy were based on the following themes:

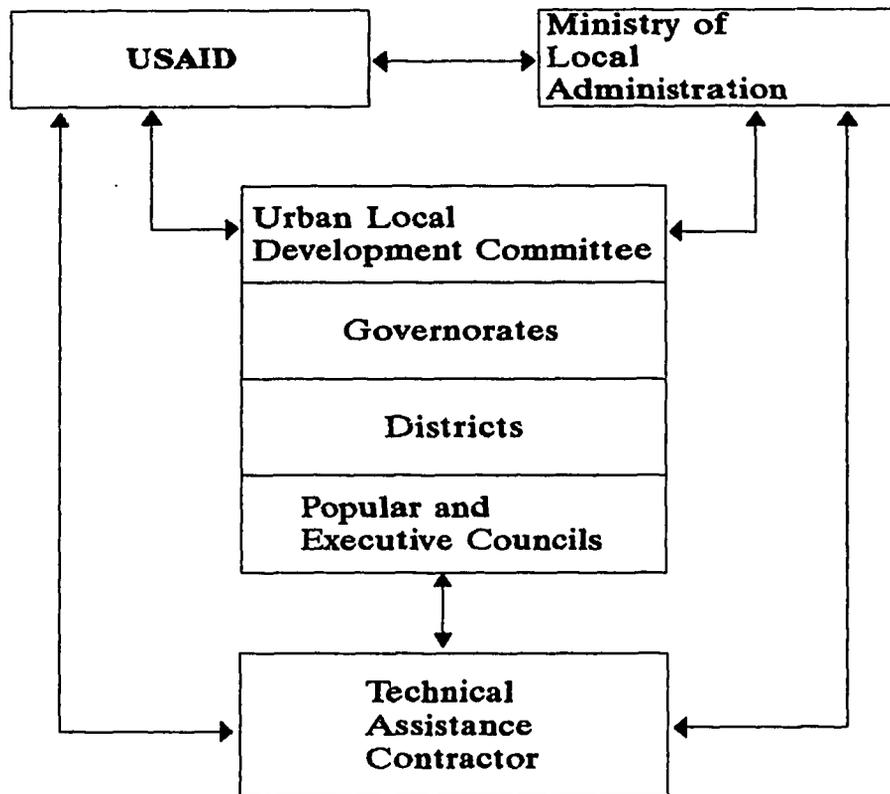
- o upgrading and expansion of local government management and operational capability to provide basic services;
- o institutionalization of improved systems, practices and procedures into local government structures;
- o intensive training and technical assistance to local public service personnel.

1.2.2 GOE Administrative Involvement

In accord with LD II Urban guidelines, the Popular Council in each urban governorate and district played an important role in communicating local service needs to the Executive Council, and the Popular Council's approval of the annual capital investment plans for its area was required. Each urban governorate and its districts selected their own projects based on identified public service needs. A basic mandate for project investment was to maintain, improve and expand existing district operation and maintenance facilities and infrastructure. Therefore, maintenance facilities had first priority for all LD II Urban investment monies received by the districts and governorates.

Yearly funding, known as Block Grants, provided for the implementation of these projects. Because LD II Urban placed more emphasis than the DSS I Program had on appropriate maintenance of infrastructure facilities, more funds were made available in this area, and intensive on-site technical assistance was provided to improve the management and operation of maintenance services at all local government levels. The GOE also contributed investment and maintenance funds to the LD II Program as a whole. These funds, whether coming from local government accounts, the Ministry of Planning or the Ministry of Finance, were deposited in governorate and district bank accounts before USAID funds were distributed. Governorates could sub-allocate up to 25% of LD II Urban funds in governorate level accounts for use by the governorates in support of district maintenance and investment activities. After the first year of the LD II Program, governorates could also dedicate up to 25% of the USAID portion of their grant to import capital equipment not available in the local market.

PRIMARY LDII URBAN INTERRELATIONSHIPS



LD II Urban provided for improved or expanded delivery of essential services, such as schools, clinics, hospitals, libraries, markets, potable water and sanitation systems, social facilities and youth centers. Each of these efforts constituted a project. In addition, new technical and administrative functions, as well as offices for these, were established at the governorate level to coordinate the projects for LD II Urban and to facilitate land management, economic and management development, and computerized management information systems. Technical assistance efforts by USA and Egyptian staff was as follows:

Table 1.1

LD II URBAN MANMONTHS
Per Group Per Category

	BSDS	O&M	SWM	LMU	ADMIN	TRAIN	MIS	OMED	TOTAL
Long Term Prof.	381.5	425.0	104.0	238.5	544.0	303.5	376.5	240.5	2613.5
Short Term	26.5	127.5	--	35.5	--	43.0	21.0	35.5	289.0
Tech. Aide	266.0	--	--	--	72.0	38.0	35.0	--	411.0
Non Prof.	39.0	20.0	--	47.0	631.0	73.0	--	46.5	856.5
Supp. Staff	--	--	--	--	675.5	--	--	--	675.5
Total	713.0	572.5	104.0	321.0	1922.5	457.5	432.5	322.5	4845.5

Implementation activities were coordinated and directed in each governorate by a Governorate Local Development Committee (GLDC) comprising representatives of all major participants in LD II Urban. These governorate committees were, in turn, represented on the Urban Local Development Committee (ULDC), which was the overall steering committee for LD II Urban, chaired by His Excellency, the Governor of Cairo. The secretaries general, who are the most senior civil servants in the six urban governorates, functioned as the technical secretariat to the ULDC. To manage LD II Urban activities, each governorate appointed at least one full-time project coordinator who reported directly to the Governor and to the GLDC on all LD II Urban implementation components. In addition, the reorganized Ministry of Local Administration worked together with USAID to coordinate the overall policy and technical aspects of the GOE decentralization program.

1.2.3 NUS-Based LD II Urban Activities

The traditional institutionalization activities associated with LD II Urban are the Basic Service Delivery System (BSDS), Operations and Maintenance (O&M) and Solid Waste Management (SWM). These are primarily engineering technical assistance efforts that have their roots in the NUS component of the DSS I Program.

- o **BSDS:** This activity has been a mainstay of the GOE decentralization program since 1982. The allocation of annual funds to local government units for capital investment and urban upgrading projects was channeled through BSDS block grants and was designed to improve local government capacity to plan, budget and implement basic services to low income neighborhoods and constituents. To this end, the BSDS effort enabled districts to address urgent service needs comprehensively, based on district priorities and district capital investment decisions. Technical training and assistance in this area emphasized closer working relationships between the Executive and Popular Councils and among district and governorate service directorates.
- o **O&M:** The O&M effort also had its start in 1982, with the comprehensive analysis of vehicle maintenance needs in the four original urban governorates. This activity was expanded in LD II Urban to include road and street maintenance activities. At the onset, the process of developing adequate maintenance systems in local government units was complicated by major deficiencies in district facilities and equipment, quite possibly because projects undertaken by O&M comprised the largest and most complex construction efforts in the whole of LD II Urban. Site availability, design and construction problems were the major constraints to the development process. However, as new facilities came on-line, and adequate equipment was installed, the O&M efforts proved most beneficial in terms of upgraded maintenance systems.
- o **SWM:** While studies and comprehensive analyses specified in the SWM Work Plan were completed, and some specific projects were implemented, the level of funding required to implement most study recommendations was beyond the scope of LD II Urban. Nevertheless, this effort will be valuable in analyzing the extent of the urban solid waste problem and in laying the foundation for a more comprehensive GOE response to donors interested in this area. Additionally, an intensive training program was implemented to upgrade solid waste management capability at the disposal, operation and system management levels, and will be helpful to such future donor response.

1.2.4 Activities Unique to LD II Urban

LD II Urban's other major area of institutionalization activities represented a unique and ambitious part of the overall GOE decentralization strategy. Two of these three activities, Land Management (LMU) and Office of Management and Economic Development (OMED), were completely new institutionalization efforts in Egypt and are limited to the urban governorates. The third activity, Management Information Systems (MIS), had received some attention in the Basic Villages Service (the forerunner of LD II Provincial), but it was new to the urban side of decentralization activities.

These three institutionalization activities comprised the 'softer' side of LD II Urban, in that no construction or major equipment purchase was involved. Instead, these activities focused on the installation of offices to house new technical functions in each of the six urban governorates. These offices now provide governors and senior governorate management with major new analytical, management and decision making capability regarding key local government public service responsibilities.

- o **OMED:** In past years, the governorates had to discharge their capital investment and budget development functions with limited background data and practically no trend or forecasting analysis upon which to base major expenditure decisions. Now installed, these OMED offices provide the governors with an invaluable research and analysis

resource which can generate dependable financial and economic data well in advance of expenditure decision deadlines.

- o **MIS:** The rapid development of these offices, called MIS Centers, has filled a very obvious void in the urban governorates' traditional procedures for processing and managing data. The acceptance of this computer based function has been total in the governorates. In fact, the challenge to the Technical Assistance Contractor staff, in the later stages of the MIS Center implementation and development, was to keep up with the rapidly expanding skills of the GOE MIS staff groups in responding to new MIS applications identified in governorate MIS needs assessments.
- o **LMU:** Various individual aspects of urban planning and land management functions had been in place in the governorates for some time. Given the governorates' unique authority, in the public sector, concerning land ownership and development, these fragmented functions were inadequate in addressing comprehensive land development issues in either the public or private sectors. The land management institutionalization effort has enabled governorates to have, for the first time, a technical resource office and staff capable of three development functions: looking at urban land use in a broader context; implementing comprehensive land development projects from conceptualization to construction supervision; and generating and returning significant revenues to the governorates.

1.2.5 Training

Supporting the technical assistance efforts in these six LD II Urban activities required a comprehensive program of in-country and overseas training. The training program included a wide variety of skills development courses, workshops, technical seminars and training programs for trainers. In fact, training has been considered the basic foundation of LD II Urban technical assistance efforts.

The LD II Urban training program began in the spring of 1988. A training committee, chaired by the secretary general, was formed in each governorate to review training plans and to monitor training activities. Each governorator nominated a training coordinator, and governorate decrees were issued to set up training departments. Training offices and halls in the six governorates were supplied with furniture and equipment, two new training centers were built in Suez and Qaliubia, and centers in other governorates were upgraded. Each governorate training center was also equipped with a computer, complete with Arabic software, for monitoring courses and trainees and to facilitate the program evaluation and reporting processes. An urban training roster was developed and installed in the centers, and at least two staff members at each governorate center were trained in the use of the equipment and software.

1.3 SUSTAINABILITY

Sustainability, an integral concept addressed in each section of this Final Report, is the key to measuring the success of any development program endeavor. A program or individual program project is "sustainable" if the success of its intended output can be maintained after its implementation has been completed.

To be sustained, a program or project must have the required frameworks and organization in place, in terms of the necessary financing, staffing and management of local resource capacity, utilization and

regeneration, to prevent the project components from collapsing. These organization and implementation frameworks constitute the institutionalization of the services the program or project is addressing. If the institutionalization is maintained, sustainability is achieved, and the program or project goal is promoted.

Measurable Sustainability Indicators are the testing or evaluation mechanisms whereby the success in achieving a program goal can be determined. They are developed by the TAC Teams involved with each of the individual components of a program.

In Table 1.2 below, the sustainability achieved by each governorate in six LD II Urban component activities is summarized. In this summary, each activity has been given equal weight. A sustainability rating of over 50% was reached in all areas except OMED in Cairo and LMU in Alexandria. However, the total overall average percent sustainability of all six activities in all governorates is 68%. Port Said achieved the highest sustainability score of 74%, while the greatest sustainability within the activities was accomplished by BSDS, at 74%.

1.4 SIGNIFICANT OUTPUTS AND NOTEWORTHY RESULTS

LD II Urban has produced a great number of noteworthy results which have contributed impressively towards fulfilling the urban component of the LD II Program Goal. These results have tangible evidence in the following details, which are just some of the more significant verifiable output indicators produced by LD II Urban:

- o 2594 projects were completed or well underway by local government units by the end of September 1992, at a cost of LE 194.8 million (as per quarterly report prepared by the governorates at the end of September 1992, and based on a variable exchange rate);
- o over 22 million urban Egyptians benefitted from these relatively small-scale projects during the life of LD II Urban, at an average cost of about LE 751,000 per project (Ref: Appendix 3 and Table 2.11, Section 2);
- o 33 district garages, 7 zonal workshops, 4 central workshops and 2 Road Directorate garages and workshops have been constructed at a cost of almost LE 9 million, and supported by a governorate expenditure of \$ 11.73 on equipment, tools, spare parts and repairs;
- o 16 of the 18 opportunities for installing new MIS, OMED and LMU technical functions and offices in the six urban governorates are considered to be successfully institutionalized (according to criteria presented in Section 5);
- o by the end of September 1992, GOE staff attended 519 courses, generating 62,797 trainee days;
- o the Technical Assistance Contractor (TAC) Staff for the MIS activities of LD II Urban have assisted the governorates with the implementation of the following basic systems:
 - the urban project tracking system which monitors projects funded by LD II and provides reports to governorate planning and follow-up departments;
 - a current budget system for use by the newly established governorate offices of management and economic development to prepare annual governorate budgets;
 - a capital budget system used by the offices of management and economic development to prepare the capital investment section of the budget;

Table 1 - 2

SUSTAINABILITY

LD II Urban Component Activities	Governorate - % Sustainable						Overall Component Activity % Average
	Cairo	Giza	Qaliubia	Alexandria	Port Said	Suez	
BSDS	80	73	68	71	73	80	74
O & M	72	73	* 57	77	72	75	71
MIS	71	61	* 58	68	90	* 53	69
OMED	** 28	78	92	96	78	70	74
LMU	* 54	78	* 51	** 21	74	85	61
TRAINING	62	60	* 54	60	* 54	* 54	57
OVERALL(Av.%)	62	71	63	66	74	70	68 % Total Average

Source: WSA

sustain/gh

Notes: o Each LD II Urban component activity has been given equal weight:

o Key to anticipated "Sustainability":
%

Rating

80 to 100%	-	Full Sustainability Anticipated
60 to 79%	-	Promising (areas of weakness should be addressed)
* 40 to 59%	-	Fair (needs additional emphasis by senior management)
** 0 to 39%	-	Poor (little chance of success)

- a training program tracking and monitoring system used by urban governorate training offices to monitor courses and trainees;
- 12 other pilot systems in the areas of needs assessment, taxation, housing and revenue generation.

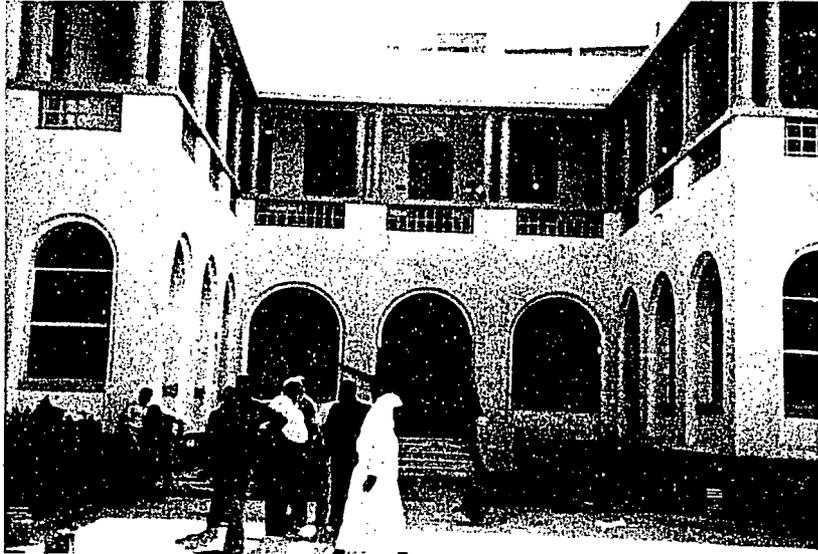
These significant and tangible results have contributed in a meaningful way to LD II Urban's purpose of further empowering urban local government units. LD II Urban has accomplished this by improving and increasing the capacity and capability of local government units to plan, implement and sustain their own local basic services, and to manage, develop and utilize their own local resources. Through this institutionalization of local government services, and through the subsequent outputs in training, staffing, resource utilization, and services development, the quality of life of low income urban residents has considerably improved. This improvement, therefore, fulfills LD II Urban's goal. Furthermore, with the effective and functioning institutionalization frameworks in place, further improvements in local government operational efficiency and in the quality of life of low income urban residents can be anticipated.



CHILDRENS LIBRARY - GIZA GOVERNORATE



COMMERCIAL SCHOOL - QALIUBEYA GOVERNORATE



HOSPITAL RENOVATION - PORT SAID GOVERNORATE



YOUTH CENTER - ALEXANDRIA GOVERNORATE

Section 2

BASIC SERVICES DELIVERY SYSTEM (BSDS)

2. BASIC SERVICES DELIVERY SYSTEM (BSDS)

2.1 TARGETS AND RESULTS

The basic tasks of the Basic Services Delivery System (BSDS) component of LD II Urban were to:

- o Improve coordination and cooperation between district planning offices and service departments.
- o Prioritize projects identified in needs assessments.
- o Improve cost estimation - insufficient details in the designs were leading directly to cost overruns and numerous budget adjustments.
- o Improve selection of contractors - unfamiliarity of district procurement officers with the provisions of Law No. 9 on contractor evaluation was causing problems.
- o Improve quality of construction of facilities - design shortcomings, non-enforcement of daily quality control during construction, lack of monitoring by senior district engineers, and the acceptance of inferior workmanship were all causing problems.
- o Provide complete and accurate financial data.

In the Strategy Plan for LD II Urban, prepared by Wilbur Smith Associates in 1989, it was stated that "If these goals are met, a number of substantive LD II Urban achievements will be in place by September 1992:

- o **Infrastructure Construction**
 - Street paving 2,250,000 m²
 - Street lighting 430,000 linear m
 - Potable water 35,000 linear m
 - Sewers and drainage 47,000 linear m
- o **Education Sector Construction**
 - Classrooms 2500
 - WC's 1000
 - Equipment procurement 45,000 pieces
- o **Health Sector Construction**
 - Health facilities (clinics, patient wards, hospital additions): 60,000 m²
 - Health equipment procurement 15,000 pieces
- o **Youth Sector Construction**
 - Youth facilities 45,000 m²
- o **Maintenance Facility Construction**
 - Vehicle maintenance facilities 250,000 m²
 - Road maintenance facilities 2,500 m²
 - Building maintenance facilities 4,000 m²
 - Maintenance equipment procurement 5,500 pieces

o **Institutionalization**

- "As a result of formal and on-the-job training, proficiency levels will have been raised for engineers, planners, accountants, program managers, and, in the private sector, construction contractors."

Reference to Section 2.2.2 shows that the physical targets have been substantially met and Section 2.3 gives a review of the institutionalization effort.

2.1.1 Level of Technical Assistance

Technical assistance was provided by installing comprehensive management systems to enhance the capabilities of accountants, financial specialists, contracting officers, engineers, planners, construction technicians and district/governorate-level decision-makers (including those from the elected local Popular Councils). The management systems included procedures for determining actual community-level needs and then prioritizing those needs in an annually budgeted Investment Plan; specific, step-by-step methods for financial and engineering monitoring of projects; and comprehensive rating systems to evaluate the degree of success of individual facilities as well as of entire projects.

Contractor Personmonths

A total of 408 professional and 305 non-professional personmonths were expended by the BSDS Team under LD II Urban.

Training Costs

Financial/accounting/contracting and engineering personnel from districts and governorates received a total of 10,493 days of instruction at a cost of LE 240,882 to improve their job skills in budgeting, accounting advertising, awarding of contracts and monitoring payments for a wide range of construction and procurement activities.

The engineering/technician personnel benefitted from a series of four core courses (concrete quality control, electrical/mechanical elements in construction, foundations and building maintenance). In addition, two engineering courses in engineering design and construction scheduling (carryovers from NUS), were offered to round out a valuable technical curriculum which now helps local government engineers design and build a variety of small structures in a technically correct manner.

Senior engineers, planners, contracting officers and finance managers from the six urban governorates were nominated and spent 20 days in the USA learning about American practices in developing and monitoring capital improvement courses.

2.1.2 Funding of Investment and Maintenance Projects

During the five-year life of LD II Urban, each participating governorate and district received an annual block grant jointly financed by USAID and the Government of Egypt to fund annual Investment Plans. A matching block grant process required that local government make a contribution of 5 percent allocated from the Local Services and Development Fund and 5 percent allocated from the Ministry of Planning.

Result: USAID obligated LE 159.5 million for funding of governorate/district project activities over the life of LD II Urban. The Government of Egypt provided an amount of LE 7.9 million from the Ministry of Planning and LE 7.9 million from the Local Services and Development Fund. The total of the matching block grants thus amounted to LE 175.3 million.

During the life of LD II Urban, the members of the participating local units were trained and the units, themselves, were encouraged to generate revenues from the use of the block grant funds. Revenues were gained from contractor penalties, bank interest and sale of tender documents. The generated revenues during LD II Urban's life were approximately LE 7 million.

- When NUS residuals from both USAID and the Government of Egypt were included, capital funds totalled LE 191.5 million for LD II Urban.

One major difference between the funding procedures of NUS and LD II Urban was the addition from the BAB II (that part of the GOE budget allocated for operation and maintenance of vehicles, equipment and facilities) general budget, of a substantial fund allocation each year dedicated to facility maintenance.

- The maintenance funds were disbursed by the Ministry of Finance through the Ministry of Local Administration to introduce the concept of routine maintenance and to assure that governorate and district projects from NUS and LD II Urban received some degree of maintenance.

2.13 Distribution of LD II Urban Funds

Equitable distribution of LD II Urban funds was to be ensured using similar guidelines to those developed under NUS.

Results: Governorate Level

The distribution of funds between the governorates remained approximately the same as in NUS with only a slight change as a result of adding Port Said and Suez Governorates. Table 2.1 presents a comparison of fund distribution percentages during NUS and LD II Urban to date.

Table 2.1

FUND DISTRIBUTION PERCENTAGES BETWEEN GOVERNORATES

<u>Governorate</u>	<u>NUS</u> <u>%</u>	<u>LD II Urban</u> <u>%</u>
Cairo	50	44
Alexandria	25	21
Giza	15	16
Qaliubia	10	8
Port Said	-	6
Suez	-	5
Total	<u>100</u>	<u>100</u>

Source: Wilbur Smith Associates Technical Assistance (TA) Records

It may be noted that Cairo, Alexandria and Qaliubia percentages were reduced to compensate for the admission of Port Said and Suez Governorates, whereas, the Giza Governorate percentage reflects a slight increase.

- o In the fifth cycle (the fifth year of the annual capital improvement cycle for planning, financing, design and implementation), the distribution formula was modified in order to increase the share going to the smaller governorates. A base amount of LE 3,000,000 was equally allocated to all governorates; the remaining funds were then distributed according to population.
- o Several differences in fund allocations were introduced during LD II Urban.
 - In LD II Urban, each governorate headquarters was given the right to keep 25% of its share for implementation of projects serving the inhabitants of all the districts within the governorate.
 - The governorates were also given the option of using up to 25% of the USAID portion of their annual block grant fund allocation as foreign currency for importing U.S.-manufactured capital equipment which was unavailable on the local market. Such funds would be counted against a governorate's annual allocation but disbursed directly to US suppliers through a letter of credit.

District Level

Governorates continued to apply the NUS distribution formula and to utilize it to calculate the shares of even the newly established districts. This formula depended on many factors such as population size, density, illiteracy, average household size and basic services level. See Appendix 2.

2.14 Governorate and District Projects

The LD II Urban Inception Report published in March 1988 showed that there was "a lack of prioritization of projects identified in needs assessments due to inadequate coordination and cooperation between district offices and service departments." Improvements to the planning process were therefore defined to take into consideration the LD II Urban priorities namely :

- Priority 1 - Construction of new maintenance facilities or upgrading existing facilities.
- Priority 2 - Upgrading of existing infrastructure to facilitate operation and maintenance.
- Priority 3 - New infrastructure projects and equipment.

Result: In the five annual LD II Urban Investment Plans, a total of 2594 projects were identified and funded. Ninety-seven percent of these projects were completed prior to October 1992. Table 2.2 provides a summary of the projects per governorate for each fiscal year. The table indicates that, in the three years following the major change in the exchange rate in 1987, the average cost of the projects was surprisingly stable, completely ignoring inflationary trends, whereas the high average cost for the fiscal year 1991 was distorted due to the fact that large projects were selected for the first

disbursement. Separate analysis of the fiscal year clearly showed that the highest average costs were for vehicle maintenance and infrastructure projects while youth, health and education projects had lesser average costs.

Table 2.2

LD II URBAN GOVERNORATE PROJECT FACT SHEET
(By Fiscal Year)

1987

<u>GOVERNORATE</u>	<u>PROJECT</u>		<u>COST AMOUNT</u>		<u>AVERAGE</u>
	<u>No.</u>	<u>%</u>	<u>(LE 000)</u>	<u>%</u>	<u>COST/PROJECT</u> <u>(LE)</u>
Cairo	138	36	8,032	42	58,203
Alexandria	66	17	4,080	22	61,818
Giza	50	13	2,135	11	42,700
Qaliubia	29	8	989	5	34,103
Port-Said	46	12	2,294	12	49,870
Suez	<u>52</u>	<u>14</u>	<u>1,589</u>	<u>8</u>	<u>30,558</u>
Sub-Total	381	100	19,119	100	50,181

1988

<u>GOVERNORATE</u>	<u>PROJECT</u>		<u>COST AMOUNT</u>		<u>AVERAGE</u>
	<u>No.</u>	<u>%</u>	<u>(LE 000)</u>	<u>%</u>	<u>COST/PROJECT</u> <u>(LE)</u>
Cairo	257	48	22,003	53	85,615
Alexandria	149	28	10,417	25	69,913
Giza	102	19	6,017	14	58,990
Qaliubia	31	5	2,754	6	88,839
Port-Said	0	0	0	0	0
Suez	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
Sub-Total	539	100	41,191	100	76,421

1989

<u>GOVERNORATE</u>	<u>PROJECT</u>		<u>COST AMOUNT</u>		<u>AVERAGE</u>
	<u>No.</u>	<u>%</u>	<u>(LE 000)</u>	<u>%</u>	<u>COST/PROJECT</u> <u>(LE)</u>
Cairo	260	41	24,339	46	93,612
Alexandria	136	21	11,164	21	82,088
Giza	107	17	7,903	15	73,860
Qaliubia	30	5	3,930	7	131,000
Port-Said	47	8	2,997	6	63,766
Suez	<u>53</u>	<u>8</u>	<u>2,479</u>	<u>5</u>	<u>46,774</u>
Sub -Total	633	100	52,812	100	83,431

Table 2.2 (Continued)

LD II URBAN GOVERNORATE PROJECT FACT SHEET
(By Fiscal Year)

1990

<u>GOVERNORATE</u>	<u>PROJECT</u>		<u>COST AMOUNT</u>		<u>AVERAGE</u>
	<u>No.</u>	<u>%</u>	<u>(LE 000)</u>	<u>%</u>	<u>COST/PROJECT</u> <u>(LE)</u>
Cairo	338	48	23,390	45	69,201
Alexandria	140	20	10,850	21	77,500
Giza	101	14	8,237	15	81,554
Qaliubia	34	5	4,503	8	132,441
Port-Said	42	6	3,013	6	71,738
Suez	<u>45</u>	<u>7</u>	<u>2,477</u>	<u>5</u>	<u>55,044</u>
Sub-Total	700	100	52,470	100	74,957

1991

<u>GOVERNORATE</u>	<u>PROJECT</u>		<u>COST AMOUNT</u>		<u>AVERAGE</u>
	<u>No.</u>	<u>%</u>	<u>(LE 000)</u>	<u>%</u>	<u>COST/PROJECT</u> <u>(LE)</u>
Cairo	172	50	11,723	40	68,157
Alexandria	59	17	5,677	19	96,220
Giza	37	11	4,695	16	126,892
Qaliubia	14	4	2,864	10	204,571
Port-Said	33	10	2,086	7	63,212
Suez	<u>26</u>	<u>8</u>	<u>2,227</u>	<u>8</u>	<u>85,654</u>
Sub-Total	341	100	29,272	100	85,842
TOTAL	2594	100	194,864	100	75,121

Source: Wilbur Smith Associates TA Records; December 1991 Quarterly Progress Report

2.1.5 Special Projects

It was recognized that all governorate needs could not be met by the investment plan funding and it was determined that consideration would be given to providing special funds at the discretion of USAID. Technical assistance was therefore given to governorates for development of feasibility studies and submissions to USAID.

Result: Through LD II Urban, a total of LE 3,457,827 plus US \$96,150 was allocated to initiate the following four special projects in response to high priority needs cited by the concerned governorates.

Cairo	-	Container Repair	LE 1,210,906
Alexandria	-	Maintenance of the CIP Fleet	LE 948,387
Giza	-	Solid Waste Transfer Station	LE 369,098 + \$ 27,837
Suez	-	Development of Governorate Roads Directorate	LE 929,436 + \$ 68,313

The rate of expenditure was slow in all of these special projects. Detailed reports are given in Appendix 4.

2.1.6 BSDS Project Summary

Table 2.3 presents a concise summary of LD II Urban cost and completion data. Investment plan profiles for individual governorates are given in Appendix 1.

Table 2.3

LD II URBAN PROJECT SUMMARY

Category	No.	%	Cost		Completed	
			LE(million)	%	No.	%
District Projects	2594	99	194.9	98	2464	95
Special Projects	4	1	3.8	2	2	80
Total	2598	100	198.7	100	2466	94

Source: Governorates Records; September 1992 Quarterly Progress Report

- o Table 2.4 shows the distribution of projects and funds per priority. The table indicates that 77% of the total number of implemented projects were for renovation and upgrading existing facilities, which is in line with LD II Urban guidelines. The table also shows that only 62% of the total funds were allocated to the same purpose, which indicates that the cost per renovation project was less than the average project cost in Priorities 1 and 3. At the same time, only 5 % of the total number of projects and 6 % of the LD II Urban funds were directed to establishing new facilities. This indicates a desirable new trend for Government of Egypt officials to, namely, raise the efficiency of the existing facilities instead of spending large amounts of money to establish new ones.
- o Table 2.5 indicates total available LD II Urban funds during the five-year period from 1987 to 1991, distributed by fund source. It is noted that the Government of Egypt officials, with the assistance of Wilbur Smith Associates, have succeeded in effectively utilizing the LD II Urban block grant funds by generating revenue from bank interest, penalties and sale of tender documents. These additional funds amount to approximately LE 7 million, or about 4% of the block grant.

Table 2.4

NUMBER OF PROJECTS AND ALLOCATIONS - BY PRIORITY
FOR FISCAL YEARS 1987-1991

(As Of End Of September 1992)

GOVERNORATE	NO.	TOTAL ALLOCATIONS	PRIORITY 1				PRIORITY 2				PRIORITY 3				CONTINGENCY	
			NO.	%	ALLOC. (LE)	%	NO.	%	ALLOC. (LE)	%	NO.	%	ALLOC. (LE)	%	ALLOC. (LE)	%
Cairo	1165	89,487,191	156	13	23,130,830	25	976	83	59,426,328	66	33	2	4,706,508	5	2,223,525	2
Alexandria	550	42,188,853	90	16	12,539,336	29	432	78	25,961,048	61	28	5	2,471,409	5	1,217,060	2
Giza	397	28,986,712	51	12	5,596,950	19	321	80	20,949,332	72	25	6	2,078,483	7	361,947	1
Qaliubia	138	15,039,182	32	23	6,360,575	42	92	66	6,863,628	45	14	10	1,589,403	10	225,698	1
Port Said	168	10,390,182	65	38	5,476,602	52	85	50	3,734,058	35	18	10	993,973	9	185,549	1
Suez	176	8,771,682	47	26	3,032,676	34	108	61	4,223,972	48	21	11	1,106,230	12	408,804	4
TOTAL	2534	194,863,924	441	17	56,136,969	28	2014	77	121,158,366	62	139	5	12,946,006	6	4,622,583	2

Priority 1: Maintenance Facilities
Priority 2: Renovation and Upgrading
Priority 3: New Facilities

Source: Governorate Records

Table 2.5

LD II URBAN
SOURCES OF FUNDS
IN LE
(As Of End Of September 1992)

FISCAL YEAR	BLOCK GRANT	RESIDUALS		REVENUES			TRANSFERS		TOTAL ALLOCATIONS
		GOE/NUS	AID	INTEREST	PENALTIES	TENDER DOCUMENTS	FROM	TO	
1986/87	12,898,600	6,208,936	1,099,534	1,772,728	75,432	11,826	258,413	2,061,136	19,119,333
1987/88	41,515,100	0	0	1,228,053	590,997	33,079	1,276,313	3,453,042	41,190,500
1988/89	48,400,000	1,102,200	675,550	1,822,226	427,099	91,180	5,252,991	4,959,534	52,811,712
1989/90	48,400,000	0	0	1,860,890	452,162	94,077	5,685,100	4,022,131	52,470,098
1990/91	24,200,000	789,299	0	558,248	167,951	47,646	3,509,137	0	29,272,281
TOTAL	175,413,700	8,100,435	1,775,084	6,097,145	1,713,641	277,808	15,981,954	14,495,843	194,863,924

Source: Governorate Records
 Residuals: Funds remaining from previous years
 Revenues: Funds collected from specific sources
 Transfers: Funds not used by projects

2.1.7 Project Implementation Parameters

2.1.7.1 Evaluation

Any evaluation of the BSDS component of LD II Urban must take into consideration:

- o The achievement of building within local government staff the proven capability to develop and execute capital improvement plans, a capability which did not exist in 1982 at the beginning of NUS; and
- o The products of the Annual Investment Plans, i.e., thousands of classrooms and additions/extensions to clinics, hospitals, social centers, youth facilities and water, wastewater, and road/street lighting networks. These products were completed, are being utilized, and are playing a vital role in the provision of basic services to the urban poor in Egypt's largest cities.

Other capacity building indicators are:

- o Planning
 - Percentage of BSDS projects which are operational.
 - Percentage of projects which had significant budget changes.
 - Availability of Needs Assessment.
- o Contracting
 - Percentage of projects which had significant cost overruns.
 - Percentage of projects which had significant time overruns.
 - Number of contractor disputes.
- o Implementation
 - Expenditure versus time.
 - Quality of construction.
- o Tracking
 - Accuracy of Quarterly Progress Reports.
- o Cash Management
 - Interest/Income.
- o Maintenance of Projects
 - Percentage maintained.

During any evaluation of a scheme as complex as this the problem is to make the findings as objective as possible. Measurable indices were therefore sought and a project rating program was developed.

2.1.7.2 BSDS Project Rating Program

In any large-scale foreign aid or development program involving construction or equipping of multiple facilities, managers often strive for some form of numerical indicator to assess or rate its overall value. What was the quality of the design and construction? Does the level of present day usage of a completed facility validate the originally reported need for this school, hospital, or bakery? Was this construction job finished on time and under budget? Is the facility being adequately maintained?

It was considered that such indicators would be of vital importance to the GOE officials since they need the capability to look back on functioning facilities to identify both strengths and weaknesses. As a result, these officials would then be able to focus

their energies on overcoming the highlighted deficiencies and, in the process, strengthen future planning, engineering and construction efforts. To facilitate this process, computer programs were developed to process the data and produce graphical analyses of the results.

In 1990, district engineers and the engineering staff of the Technical Assistance Contractor (TAC) completed a major effort by visiting and individually rating approximately 3200 construction and equipment procurement projects which were completed between 1982 and 1990. It was agreed that the continuation of the project ratings and the preparation of future reports would be the responsibility of the governorate level Planning and Follow Up Departments. Progress has however been disappointingly slow as governorates do not seem to accept that the benefits gained are worth the necessary effort. The rating process involved a large number of categories, each of which was refined over a period of several weeks until all category scores from all of the engineers were essentially identical. The summation of all of the findings was given in LD II Urban's Project Rating Reports. The focus was on both implementation (planning, engineering and construction) and operation (degree of usage, adequacy of equipment, staffing and status of maintenance). Individual rating field work sheets (two for projects, one for equipment and two for utilities) were given in the appendices of these Rating Reports.

The depiction of the results derived from these project rating forms varies slightly from section to section within the reports but each generally contains a narrative, a graphical representation (pie charts) and computer generated tabulations. Relevant aspects presented in the reports have been updated by the TAC for all projects constructed under the first four disbursement cycles. Particular emphasis is given to accuracy of cost estimating, maintenance and the degree of income generation.

Cost Estimating - has been a perennial problem because of the lack of historical base data. It was very noticeable at the beginning of LD II Urban that a significant number of preliminary estimates were not accurate. An educational program (both formal and on-the-job) was therefore designed to advise engineers and planners on how to define projects and prepare cost estimates. The relative success of this effort is shown in Table 2.6. The statistics show a positive trend as the percentage of projects with cost overruns in excess of 30% declined from 11.2% in 1987 to 8.2% in 1990. The fact that this improvement is not even more significant is probably due to the relative newness of the cost indices prepared by the TAC and distributed to each governorate. It will take considerable time before the construction industry in Egypt will receive the same benefits available to its counterpart in the United States of America by such bodies as the Asphalt Institute which provides data on flexible pavement costs; the American Water Works Association which publishes unit costs of materials and labor for pipe jobs and constructing water treatment plants; the Bureau of Labor Statistics which tracks equipment and labor costs; and the Bureau of Mines and the Aluminum Association which furnish price trends in this commodity. Several of these organizations combine these raw data in a number of major construction indexes. One of the most widely used construction indexes is developed by Engineering News Record (ENR) which, on a quarterly basis, prints separate graphs for buildings, materials, and skilled labor, and on a weekly basis prints detailed cost data for materials and labor in 20 cities in North America.

Maintenance consists of a number of interrelated factors, such as:

- a) Periodic structural repairs and renovation;
- b) General repairs in any of the following categories;
 - electrical,
 - plumbing,
 - carpentry,
 - flooring,
 - insulation,
 - painting,
 - glazing,
- c) Cleaning;
- d) Emergency maintenance.

Table 2.7 and Figures 2.1 and 2.2 show the status of construction project maintenance.

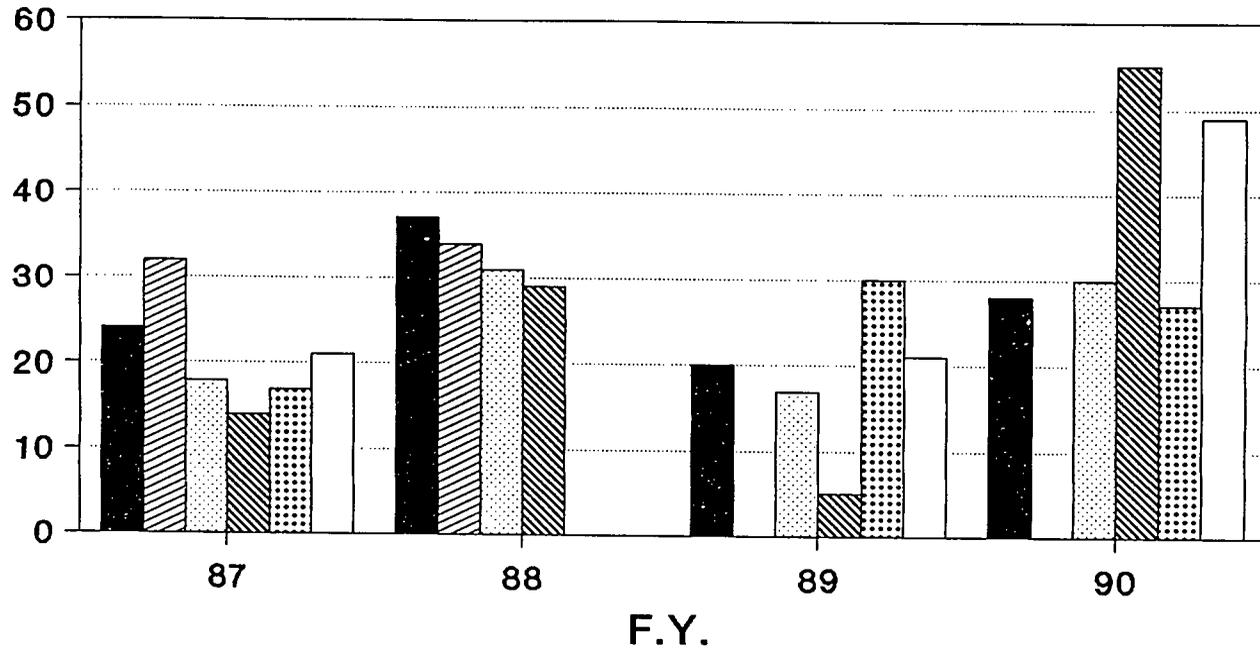
The benefit of the increased emphasis on maintenance can be seen in the reduction in the number of projects which require urgent maintenance. The number of projects requiring periodic maintenance has however remained disappointingly stable; the need for increased expenditure on periodic and preventative maintenance is discussed elsewhere in this Final Report.

Table 2.6

**PROJECTS WITH COST OVERRUN
IN EXCESS OF 30% OF PRELIMINARY ESTIMATE
(By Fiscal Year)**

Governorate	1987	1988	1989	1990	1991
Cairo	13	20	28	30	4
Alexandria	7	8	15	5	1
Giza	4	4	6	13	5
Qaliubia	4	3	0	2	1
Port Said	11	0	5	4	3
Suez	4	0	14	3	0
Average	12.32	8.01	13.63	10.52	8.43

STATUS OF SUB-PROJECTS NEEDED PERIODIC MAINTENANCE

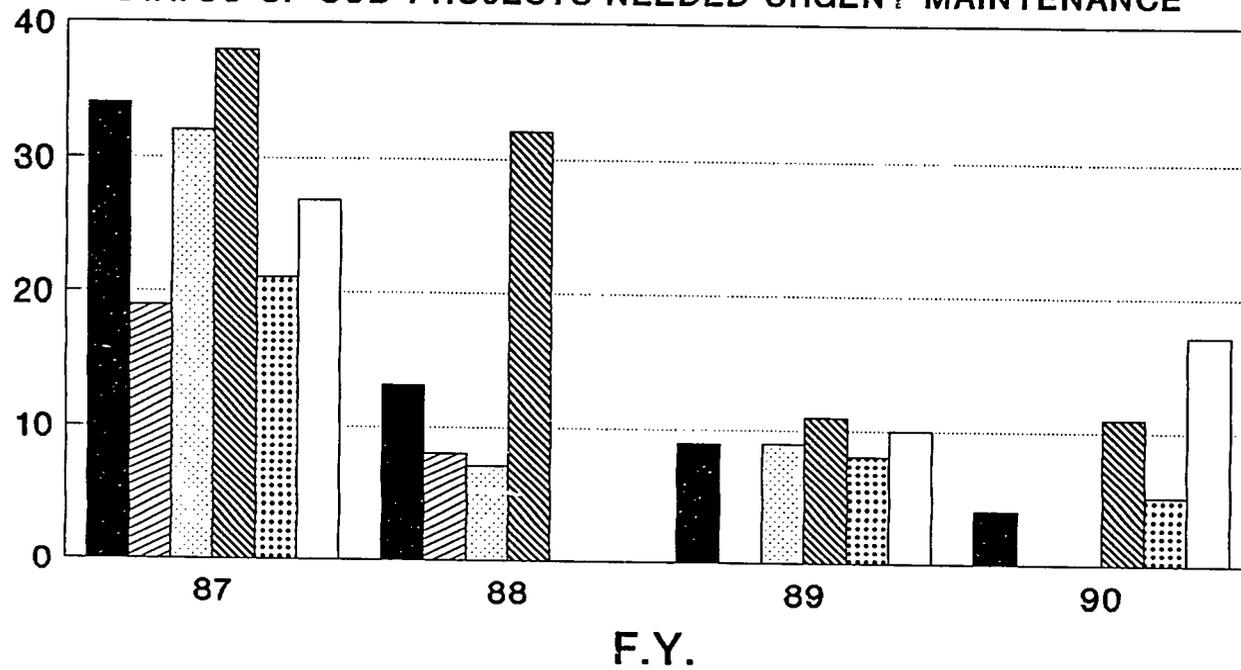


2-13

Figure 2.1

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STATUS OF SUB-PROJECTS NEEDED URGENT MAINTENANCE



2-14

Figure 2.2

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Table 2.7

CONSTRUCTION PROJECTS MAINTENANCE
(By Fiscal Year)

Governorate	1987		1988		1989		1990	
	U	P	U	P	U	P	U	P
Cairo	34	24	13	37	9	20	4	28
Alexandria	19	32	8	34	*	*	*	*
Giza	32	18	7	31	9	17	0	30
Qaliubia	38	14	32	29	11	5	11	55
Port Said	21	17	NA	NA	8	30	5	27
Suez	27	21	NA	NA	10	21	17	49

Key

U = Percentage needing urgent maintenance

* = Project rating exercise not complete

P = Percentage needing periodic maintenance

NA = No projects in this fiscal year

Source: Wilbur Smith Associates

Income Generation - has been emphasized since the beginning of LD II Urban and its importance continues to be highlighted by the Government of Egypt. For example, in the 1992 Budget Speech, the Prime Minister stated clearly that the central government would no longer be able to fund all local government needs and they should generate revenues for themselves whenever possible. Table 2.8 shows the percentages of LD II Urban projects which generate income.

Table 2.8

INCOME GENERATION
(By Fiscal Year)

Governorate	1987			1988			1989			1990		
	#	*IG	%									
Cairo	138	88	64	257	79	31	259	163	63	333	224	67
Alexandria	66	34	52	149	83	56	132	56	42	133	58	44
Giza	50	22	44	102	50	49	107	46	43	99	36	36
Qaliubia	29	13	45	31	24	77	30	13	43	36	14	39
Port Said	46	23	50	0	0	0	47	19	40	41	18	44
Suez	52	30	58	0	0	0	53	22	42	45	25	55
Total	381	210	55	539	236	44	628	319	51	687	375	55

Key

IG = Income generation # = Number of Projects

* The projects shown as generating income reflect only those classified in the Project Rating Reports as Good or Moderate

Source: Wilbur Smith Associates

2.1.8 LD II Urban Maintenance Program

Maintenance of public facilities such as schools, hospitals, youth centers, and infrastructure has historically not been seen as an important function in Egypt. The Maintenance Program was introduced to not only prolong the effectiveness of the facilities constructed with NUS and LD II Urban funds but also to instill a regard for the concept of routine maintenance in the minds of the engineers, financial specialists, planners and others associated with the capital investment plans.

Result: Governorate and District Maintenance Projects

During LD II Urban, each participating governorate and district prepared a Maintenance Plan covering the requirements to operate and maintain existing facilities and equipment funded by NUS, Local Services and Development Fund and LD II Urban.

Table 2.9 indicates that, out of 1749 projects which were maintained during the 1987-1992 Maintenance Programs, 1134 projects (65%) were originally constructed from NUS or LD II Urban funds. Thus, this LD II Urban Maintenance Program is achieving its goal of maintaining the NUS and LD II Urban facilities.

Table 2.9

LD II URBAN MAINTENANCE PROGRAM Fiscal Years 1987-1992

<u>GOVERNORATE</u>	<u>TOTAL PROJECTS</u>	<u>NUS AND/OR LD II URBAN PROJECTS</u>	<u>COST (LE)</u>
Cairo	1035	624	13,963,438
Alexandria	312	217	6,604,418
Giza	215	157	4,844,923
Qaliubia	84	51	3,101,807
Port Said	50	44	1,023,640
Suez	<u>53</u>	<u>41</u>	<u>802,313</u>
Total	1749	1134	30,340,539

Source: Wilbur Smith Associates TA Records

Fund Distribution

During the six years of the Maintenance Program, funds were allocated to BAB II of the Ministry of Finance General Budget. During the early years of the Maintenance Program, there was a delay each year, averaging five or six months, in the delivery of the funds. This situation caused a continuing problem to most of the participating local units since they had to implement the maintenance projects and complete the final accounting in essentially a six-month period (before the end of the Government of Egypt fiscal year on June 30). In some cases, this affected the quality of the work done and the efficiency of the funds used.

Financial and Administrative Regulations

Three letters were issued regulating the delivery and utilization of the Maintenance Funds:

1. Circular Letter No. 62 for 1986 from the Central Department of Governmental Accounting Ministry of Finance which, in essence, states that:
 - a. the annual LE 14.7 million will come from the residuals of the Commodity Import Program;
 - b. funds will be allocated through the Bab II of the Ministry of Local Administration budget and will be designated for operation and maintenance of water supply, sewerage, drainage, roads, equipment and other assets;
 - c. specific accounting procedures must be followed; and
 - d. unspent funds must be returned at the end of each fiscal year.
2. Letter, dated July 21, 1988, from the Chief of the Sector of the General State Budget to the Ministry of Finance, which recommends that the unspent maintenance funds be returned to the same governorate the following fiscal year according to its request.
3. Circular Letter No. 8 for 1988 from the Sector Chief, General Secretariat of Local Administration, which identifies the sum of BAB II money allocated for "equipment operation and maintenance and for projects which are implemented by the American Grant program." Moreover, the letter requests that the recipient specify the amounts to be spent in maintaining heavy equipment from DSF, NUS and BVS.

The Financial Status of the Maintenance Funds

Table 2.10 shows the maintenance funds allocated for each governorate per fiscal year. The table indicates the small percentage of funds returned to the Ministry of Finance.

Table 2.10
MAINTENANCE FUND FINANCIAL STATUS
(By Fiscal Year)

<u>GOVERNORATE</u>	1987					
	<u>TOTAL NO.</u>	<u>ALLOC.</u>	<u>DISBURS.</u>	<u>%</u>	<u>RETURN TO MOF</u>	<u>%</u>
Cairo	127	728,751	726,900	99.7	1,851	0.3
Alexandria	29	242,550	242,550	100.0	0	0.0
Giza	38	181,365	181,365	100.0	0	0.0
Qaliubia	2	72,460	72,460	100.0	0	0.0
Port-Said	-	-	-	-	-	-
Suez	-	-	-	-	-	-
Sub-Total	196	1,225,126	1,223,275	99.8	1,851	0.2

Table 2.10 (Continued)
MAINTENANCE FUND FINANCIAL STATUS
 (By Fiscal Year)
 1988

<u>GOVERNORATE</u>	<u>TOTAL NO.</u>	<u>ALLOC.</u>	<u>DISBURS.</u>	<u>%</u>	<u>RETURN TO MOF</u>	<u>%</u>
Cairo	130	971,670	797,525	82	174,145	18
Alexandria	36	485,100	461,610	95	23,490	5
Giza	20	241,818	241,818	100	0	-
Qaliubia	14	144,746	144,746	100	0	-
Port-Said	-	-	-	-	-	-
Suez	-	-	-	-	-	-
Sub-Total	200	1,843,334	1,645,699	89	197,635	11

1989

<u>GOVERNORATE</u>	<u>TOTAL NO.</u>	<u>ALLOC.</u>	<u>DISBURS.</u>	<u>%</u>	<u>RETURN TO MOF</u>	<u>%</u>
Cairo	112	971,670	916,642	94	55,028	6
Alexandria	25	485,100	480,091	99	5,009	1
Giza	20	241,818	241,818	100	0	0
Qaliubia	10	144,746	144,746	100	0	0
Port-Said	-	-	-	-	-	-
Suez	-	-	-	-	-	-
Sub-Total	167	1,843,334	1,783,297	97	60,037	3

1990

<u>GOVERNORATE</u>	<u>TOTAL NO.</u>	<u>ALLOC.</u>	<u>DISBURS.</u>	<u>%</u>	<u>RETURN TO MOF</u>	<u>%</u>
Cairo	180	3,061,900	3,023,603	99	38,297	1
Alexandria	68	1,424,850	1,355,471	95	69,379	5
Giza	48	730,440	730,440	100	0	0
Qaliubia	20	923,762	923,762	100	0	0
Port-Said	12	255,970	255,970	100	0	0
Suez	16	184,950	180,741	98	4,209	2
Sub-Total	344	6,581,872	6,469,987	98	111,885	2

FY 1991

<u>GOVERNORATE</u>	<u>TOTAL NO.</u>	<u>ALLOC.</u>	<u>DISBURS.</u>	<u>%</u>	<u>RETURN TO MOF</u>	<u>%</u>
Cairo	233	3,873,588	3,728,468	96	145,120	4
Alexandria	90	1,796,840	1,714,396	95	82,444	5
Giza	36	1,532,850	1,531,482	100	1,368	0
Qaliubia	18	961,138	948,983	99	12,155	1
Port-Said	19	372,170	372,170	100	0	0
Suez	21	283,690	283,472	100	218	0
Sub-Total	417	8,820,276	8,578,971	97	241,305	3

Table 2.10 (Continued)
MAINTENANCE FUND FINANCIAL STATUS
(By Fiscal Year)

1992

<u>GOVERNORATE</u>	<u>TOTAL NO.</u>	<u>ALLOC.</u>	<u>DISBURS.</u>	<u>%</u>	<u>RETURN TO MOF</u>	<u>%</u>
Cairo	253	4,770,300	4,724,556	99	45,744	1
Alexandria	64	2,350,300	2,335,464	99	14,836	1
Giza	53	1,918,000	1,918,000	100	-	0
Qaliubia	20	867,110	867,110	100	-	0
Port-Said	19	395,500	395,500	100	-	0
Suez	16	<u>338,100</u>	<u>338,100</u>	<u>100</u>	<u>-</u>	<u>0</u>
Sub-Total	425	10,639,310	10,578,730	99	60,580	1
Total	1,749	30,953,252	30,279,959	98	673,293	2

Source: Wilbur Smith Associates TAC and Governorate Records; September 1992 Quarterly Progress Report

2.1.9 Training in Support of BSDS

In addition to the continuous on-the-job training provided during the field visits, the BSDS Team participated in developing, monitoring and informally evaluating the impact of a number of courses which were given to the Government of Egypt district personnel. The role of the BSDS Team generally was to identify specific needs; develop key topics (technical curriculum) to be covered during the training period; provide technical review, in both English and Arabic, of the training manuals; and confer, in the field, with supervisors to assess the impacts of classroom instruction.

2.1.9.1 Courses Carried Over From NUS

1. Building Maintenance

This was an engineering course for district engineers involved in the maintenance of public facilities. The course covered all phases of maintenance from planning to execution, especially for typical district buildings and equipment.

2. Construction Management, Planning and Design

This was a management course for both district engineers and follow-up officials covering the first phase of management of the construction of typical district projects.

3. Construction Management, Monitoring and Evaluation

This was an engineering course for both district engineers and follow-up officials covering the second and final phase of management of the construction of typical district projects.

4. Budgeting and Finance

This was a financial course for accounting, contracting and budgeting officials covering all phases of budget preparation with focus on standard accounting principles in concurrence with the applicable GOE regulation, Law 9.

2.1.9.2 Courses Initiated During LD II Urban

1. Quality Control of Plain and Reinforced Concrete

This was a five-day technical refresher course for district engineers (four days in class, one in the field visiting construction sites). Some of the topics included in the course were types of cement, water cement ratio, curing process, mix design, inspection of different concrete components, and tolerances in accepting actual concrete work.

2. Design and Inspection of Electrical-Mechanical Components in Small Buildings

This was a five-day technical course for district engineers and architects (four days in class, one day in the field visiting different sites). The course was specially designed for civil engineers and architects to teach them how to design and inspect simple, standard, electrical-mechanical components of the small buildings typically constructed in the districts. Some of the topics included in the course were interior power circuits, water/wastewater hookup, sanitary fixtures, principles of interior and exterior lighting, and tolerance in acceptance of field work.

3. Design and Inspection of Foundations for Light Construction

This was a ten-day technical refresher engineering course for civil engineers responsible for designing and inspecting foundations for small structures constructed under LD II Urban (eight days in class and two days in the field visiting different sites).

The course included topics such as: review of fundamentals of soil mechanics; types and properties of various soils; identifying and testing soils in both the field and the laboratory; interpretation of soil boring logs and records; design loads on foundations; isolated, wall, and combination footings; design procedures; inspection of excavation including dewatering and shoring as required; inspection of reinforcement in foundations - checking of bar sizes, spacing, bends, and cover; inspection of concrete placement in foundations; and acceptable tolerances.

4. Construction Details and Cost Analysis

During LD II Urban, the BSDS Team engineers developed two very valuable engineering manuals, the Special Construction Details Reports and the Cost Analysis Report. Orientation seminars were subsequently conducted in all of the urban governorates and the contents of both reports were explained in detail to concerned district officials.

The Special Construction Details Report provided solutions for a number of minor but troublesome construction defects which had been encountered again and again over the years on district projects in all six of the urban governorates. Such defects included classroom doors breaking loose from the block walls after only one or two years of use, classroom blackboards which

had too uneven a surface on which to write, and septic tanks which were not adequate in size for the number of users. Solutions, which were detailed in the manual, considered both cost and engineering viewpoints.

The Cost Analysis Report provided unit costs for the various types of LD II Urban projects as well as cost guidelines for preparing cost estimates for any project. This report was compiled from actual contract costs of hundreds of construction contracts in all six urban governorates during the years of LD II Urban. NOTE: In order for this report to be effective as an aid to construction estimators in Egypt, the data should be updated every year.

5. Water/Wastewater, Roads and Street Lighting Needs Assessment

Training sessions were conducted for governorate engineers and planners to teach them how to gather field data, compile reports and use the findings to establish utility priorities in the annual capital improvement plans.

6. Project Planning and Monitoring Overseas Training Needs Assessment

This course was conducted in Washington, DC by the United States Department of Agriculture (USDA) Graduate School. The course was of great benefit to the Government of Egypt participants as it provided a look at new technology and proven methods which can be applied in capital project planning and monitoring in Egypt.

7. Financial Institutionalization

Financial institutionalization seminars were successfully conducted for all of the six governorates. The comprehensive financial institutionalization strategy was explained and discussed with the participants, who came from both districts and governorates. The Maintenance Fund delivery delay problems were emphasized in an attempt to develop adequate solutions.

8. Accounting and Financial Reporting

This new training course was successfully conducted in the six governorates. The duration of the course was five days and it was attended by the chief accountants and one accountant from each district. This course gave specific explanation for all of the financial procedures to be applied in the accounting sections.

9. Contract Management

This new training course was successfully conducted in the six urban governorates. The duration of the course was five days. The trainee targets were the contracting managers and engineers from the engineering departments from both governorates and districts. The topics covered included contracting regulations, general conditions of contracts, special conditions for engineering contracts, and the roles of the engineers and contracting officials in monitoring and enforcing contracts.

2.2 LD II URBAN IMPACTS

There were a number of substantial impacts of the BSDS component of LD II Urban, most of which fall into one of three categories: a) beneficiaries, b) physical impacts and c) financial impacts.

2.2.1 Beneficiaries

A rational philosophical approach to the quantification of beneficiaries and specific numerical criteria for each type of project was developed for NUS. These criteria were followed for LD II Urban (Appendix 3).

- o Table 2.11 shows that during the 1987 - 1991 fiscal years, LD II Urban implemented 2499 separate projects at an expenditure of approximately LE 191.5 million and benefitted approximately 22 million low income urban residents.

Table 2.11

BSDS BENEFICIARIES

GOVERNORATE	PROJECTS		COST (LE) (000)		BENEFICIARIES (000)		AVERAGE COST/PROJECT LE (000)	AVERAGE NO. BENEF/ PROJECT	PER CAPITA COST LE
	No.	%	AMOUNT	%	No.	%			
Cairo	1,091	44	87,154	46	8,679	39	79.9	7,955	10.0
Alexandria	544	22	41,707	22	5,006	23	76.7	9,202	8.3
Giza	391	16	28,719	15	2,967	13	73.4	7,588	9.7
Qaliubia	137	5	14,871	8	1,547	7	108.5	11,292	9.6
Port Said	163	6	10,271	5	2,328	11	63.0	14,282	4.4
Suez	173	7	8,740	4	1,533	7	50.5	8,861	5.7
TOTAL	2,499	100	191,462	100	22,060	100	76.6	8,828	8.7

Source: Wilbur Smith Associates

- * If an individual benefits from (x) number of projects, that individual is considered as (x) beneficiaries. Thus, it is quite possible to have a greater number of beneficiaries than the total of the benefitting population.

Analysis of Table 2.11

- o Port Said had the highest number of beneficiaries per project. The Port Said figure of 14,282 beneficiaries per project was approximately twice that of either Cairo or Giza.
- o The cost for any one beneficiary was lowest in Port Said (LE 4.4) and the highest in Giza (LE 9.7) and Cairo (LE 10.0). Therefore, based on the number of beneficiaries, more advantages were provided in Port Said. Using the number of beneficiaries as the sole parameter of success in this type of capital investment plan was, however, not possible because the beneficiary criteria system has some inherent biases. For example, with health clinics, each visitor to an out-patient clinic was counted as a beneficiary but with schools, a pupil was counted as only one beneficiary even though he occupied a seat every school day for one school year. Thus, if one governorate had a lower number of beneficiaries, it did not necessarily show that this governorate had less worth in their projects, rather it may have showed that this governorate perhaps had more schools and less health clinics than the other governorates. This situation is clearly illustrated by the following Table 2.12.

Table 2.12

**BSDS DISTRICT PROJECTS
BY SERVICE SECTOR**

GOVERNORATE	PROJECTS		COST (LE) (000)		BENEFICIARIES (000)		AVERAGE COST/PROJECT LE (000)	AVERAGE NO. BENEF/ PROJECT	PER CAPITA COST/ LE
	No.	%	AMOUNT	%	No.	%			
Infrastructure	707	28	52,231	27	10,545	48	73.9	14,900	4.95
Food Security	20	1	1,753	1	89	0	87.7	4,500	19.7
Education	699	28	40,641	21	660	3	58.1	900	61.6
Public Health	378	15	34,383	1	5,289	24	91.0	14,000	6.5
Social Affairs	271	11	12,786	7	1,099	5	47.2	4,100	11.63
Veh. Maint.	287	12	42,941	22	2,635	12	149.2	9,200	16.30
Road Maint.	87	3	9,947	5	1,538	7	114.3	17,700	6.47
Build. Maint.	50	2	1,654	1	205	1	33.1	4,100	8.07
Contingency	-	-	5,126	3	-	-	-	-	-
TOTAL	2,499	100	191,462	100	22,060	100	76.6	8,828	8.7

Analysis of Table 2.12

- o In terms of money, the largest service sector was Infrastructure (which encompassed water, wastewater, paving, and street lighting). However, none of these infrastructure projects could be considered as major utility improvements which, for example, serve an entire neighborhood of a city. The average cost of the infrastructure project was only LE 73,900 and typically the work might be installing street lighting, sanitary sewers, or water mains in several small streets in an area otherwise unserved.
- o The Education sector had the largest number of projects but expended less funds than the Vehicle Maintenance sector, which had been characterized by costly, multi-phase jobs. Reflecting its general lack of popularity (and success) within LD II Urban, the lowest number of projects were found in the Food Security sector. Low expenditures on Building Maintenance were countered by funds from the Maintenance Plan.
- o From the viewpoint of beneficiaries, Infrastructure was the sector providing the greatest return from the investment. The average cost per beneficiary was only LE 4.95 as compared with Education where the average cost per beneficiary was LE 61.6. The greatest average number of beneficiaries per project was in Road Maintenance with a result of 17,700 beneficiaries per project. The average cost of each road maintenance project (LE 114.3), was, however, approximately one-and-one-half times as great as the average cost of an Infrastructure project, so the cost per beneficiary was LE 6.47.

Generation of Employment - undoubtedly has a direct benefit for people who would otherwise have not been gainfully employed. Table 2.13 shows that, on average, one personmonth of employment was created in the private sector for each LE 2028 spent and one personmonth of employment was created in the public sector for each LE 11,392 spent. The best expenditure/job creation ratios were generally found in the sectors which included building construction. The worst ratios were found in the more highly mechanized paving or utility sectors.

Table 2.13

**JOBS RESULTING
FROM NUS AND LD II URBAN**

Sector	Units and Quantities	Type of Const.	Job		Total Funds LE	Fund/ Contract PM	Fund/ Gov. PM
			Contr. (PM)	Gov. Pers. (PM)			
1. Paving	2,900,000 m ²	C	945	28	15,072,544	15,950	538,305
2. Bridges	95 Lm	C	17	-	178,521	10,501	
3. Street Lighting	600,000 Lm	C	600	12	6,451,013	10,752	537,584
4. Potable Water	56,691 Lm 91 taps	C C	658	102	2,511,677	3,817	24,624
5. Sewers, Drainage	72,500 Lm 300 pieces	C E	800	75	5,050,297	6,313	67,337
6. Solid Waste	192 m ² 4,671	C E	180	45	1,606,141	8,923	35,692
7. Public W.C.s	145 WCs 159 WCs	C R	169	36	849,648	5,028	23,601
8. Miscellaneous	13,800 Lm 34,000 m ² 44,000 pieces	C C E	4,220	15	4,330,590	1,026	288,706
9. Food Security	1,279 stalls 3,700 m ² 50 pieces	C C E	4,254	65	2,040,509	480	31,392
10. Education	3,117 clsrms 1,100 WCs 52,000 pieces 1,137 clsrms 272 WCs	C C E R R	23,100	6,240	37,491,080	1,623	6,008
11. Health	68,000 m ² 35,000 m ² 24,000 pieces	C R E	10,284	3,600	22,803,741	2,217	6,334
12. Youth	74,000 m ² 21,000 pieces	C E	8,900	1,500	11,134,263	1,251	7,423
13. Maintenance	208,000 m ² 3,500 pieces	C E	12,485	140	25,561,091	2,047	182,579
Total			66,612	11,858	135,081,115	2,028	11,392

C - New construction Lm - linear meter
E - Expansion & additions Contr. Contractor
R - Rehabilitation Gov.Pers. Government Personnel
PM - personmonth

2.2.2 Physical Impacts

o Infrastructure

The following works were completed:

- paving of Streets.

2,353,848 m², (mostly overlaying of existing deteriorated streets).

- street Lighting.

634,100 linear meters (Lm) of lighting extension. This is equivalent to lighting approximately 14% of the entire area of Cairo Governorate. Light poles were generally used in wide streets and brackets mounted on existing buildings were used in narrow streets.

- potable Water.

58,496 linear meters of water pipe installations. These were mostly located in the unserved neighborhoods of Giza, Shoubra El-Kheima and the rural areas of Suez.

- sewerage.

44,422 linear meters of new sewer installations in the previously unserved neighborhoods.

- Solid Waste.

1,047 garbage collection carts and trucks as well as manual tools for solid waste operations were provided.

o Public WCs

One hundred new WCs were constructed and 1,500 existing units were renovated.

o Food Security

New markets, bakeries, and abattoirs were constructed and some existing facilities were renovated.

o Education

A total of 2,106 new classrooms were constructed. These were either horizontal extensions of existing schools, vertical additions onto existing facilities or, in some cases, construction on new sites.

A total of 957 new WCs were constructed in existing schools, and a large number of existing WCs in schools were renovated. There were 40,470 pieces of school equipment procured (mostly desks and tables).

Table 2.14 presents a meaningful comparison between the needs assessment survey results in 1984 and 1992. If the 2,106 classrooms constructed during LD II Urban were added to the 1661 classrooms constructed by NUS, it can be concluded that the NUS and LD II Urban contributed about 35% of the total classroom additions in four urban governorates

(Cairo, Alexandria, Giza and Qaliubia) during this eight-year period. Another indicator of the success of the education sector program is the decrease (in most of the governorates) in percentage of schools with two or three working shifts.

Table 2.14

EDUCATION NEEDS ASSESSMENT RESULTS

GOVERNORATE	1984					1992				
	TOTAL NO. OF EXIST. CLASS.	TOTAL SCHOOLS	% ONE SHIFT	% TWO SHIFT	% THREE SHIFT	TOTAL NO. OF EXIST. CLASS.	TOTAL SCHOOLS	% ONE SHIFT	% TWO SHIFT	% THREE SHIFT
Cairo	14097	871	37	52	11	21054	1206	70	28	2
Alexandria	7610	380	27	66	7	7161	471	39	50	11
Giza	3431	169	44	44	11	5264	283	55	38	7
Qaliubia	1162	61	0	67	33	1849	81	15	75	10
Port Said	NA	NA	NA	NA	NA	2313	137	82	7	11
Suez	NA	NA	NA	NA	NA	1661	102	42	58	--
TOTAL	26300	1481	NP	NP	NP	39302	2280	NP	NP	NP

Key

NA = Not available as these governorates were not included at this date
 NP = Not pertinent

Source: Wilbur Smith Associates, Needs Assessment Reports

o Public Health:

Under LD II Urban a total of 34,173 square meters of new clinics or extensions in existing hospitals and clinics were provided. Approximately 46 hospitals or clinics were renovated and a total of 11,028 pieces of medical equipment were procured. Examples of this type of specialized procurement would be laboratory microscopes, beds, kidney dialysis units and X-ray apparatuses.

A comparison between 1984 and 1992 health needs assessments is presented in Table 2.15. This table shows that substantial improvements were achieved in the condition of the health facilities.

Table 2.15

HEALTH NEEDS ASSESSMENT RESULTS

GOVERNORATE	1984 RESULTS		1992 RESULTS	
	TOTAL NO. OF FACILITIES	% GOOD	TOTAL NO. OF FACILITIES	% GOOD
Cairo	175	23	209	27
Alexandria	75	28	104	59
Giza	43	26	43	44
Qaliubia	16	25	16	50
Port Said	-	-	23	61
Suez	-	-	22	27
TOTALS	309	NP	417	NP

Key

NP = Not pertinent

Source: Wilbur Smith Associates - Needs Assessment Reports

o Youth and Social

There was a total construction of 59,030 square meters of new athletic facilities, (mostly gymnasiums and outdoor play areas) plus social activity buildings, ceremony halls, and children's libraries. Moreover, 27 youth centers were renovated and 37,400 pieces of athletic equipment were procured. Examples of this type of specialized procurement would be boxing gloves, mats for gymnastics and wrestling, basketballs, uniforms for teams and volleyball nets. Table 2.16 provides a comparison between the youth needs assessment results in 1984 as opposed to the data of 1992. It is noted that the improvement in this sector was not significant in as much as the percentage of facilities in good condition, with the exception of Qaliubia, did not increase.

Table 2.16

YOUTH NEEDS ASSESSMENT RESULTS

GOVERNORATE	1984		1992	
	TOTAL NO. OF FACILITIES	% GOOD	TOTAL NO. OF FACILITIES	% GOOD
Cairo	52	13	70	11
Alexandria	64	19	69	23
Giza	25	24	27	22
Qaliubia	10	0	13	30
Port Said	-	-	19	47
Suez	-	-	13	23
TOTAL	151	NP	211	NP

Key

N.P. = Not pertinent

Source: Wilbur Smith Associates - Needs Assessment Reports

o Maintenance Centers

A total of 229,138 m² of construction resulted in 19 new garages and vehicle maintenance workshops. There was also 6,894 m² of construction at existing road and building maintenance centers. Ten existing garages and workshops were renovated and approximately 6,300 pieces of maintenance equipment (vehicles or heavy equipment) were procured by LD II Urban.

2.23 Financial Impacts

During LD II Urban, the yearly district allocations from the Block Grant Funds were much greater than during NUS years. LD II Urban's average district allocation was approximately LE 1.1 million, or about three times the average NUS allocations, which were only about LE 350,000. In addition, these average district project allocations were approximately seven times the yearly average allocations from the Local Development Services Fund. These comparisons clearly indicate the scope of the financial impact upon the districts.

- o LD II Urban allocations varied from year to year and from one governorate to another, according to size, population density, level of services and past year's performance.
- o Through these five years of LD II Urban, the governorates and districts spent approximately LE 191.5 million for the 2499 projects and in addition, LE 3.7 million on special projects in Cairo, Giza, Alexandria and Suez Governorates.

One indirect impact of LD II Urban was the large-scale introduction of modern financial monitoring techniques to the Government of Egypt. This was necessary because the task of strengthening the financial skills of the district level accountants was more arduous and comprehensive than the problems addressed during the NUS period.

- o The number of districts increased from 31 in 1987 to 42 in 1992. Table 2.17 shows that each district had an average staff of seven accountants, financial managers and, contracting officers. Each of these individuals received both on-the-job training and classroom training during LD II Urban. The number of financial personnel that received training was actually much higher than this as personnel moved in and out of these positions between 1988 and 1992.
- o During LD II Urban, the delivery and monitoring of Block Grant Funds were based on a new, more complex and all inclusive system, differing from that used during the NUS period in that a greater number of new accounts were required. In addition, USAID contributions in each governorate had to be matched by both the Ministry of Planning and the Local Services and Development Funds.
- o The size of LD II Urban projects, in terms of LE, was greater than those of the average NUS project and this meant that the accountants were handling greater sums of money and coping with greater numbers of transactions.
 - Although each investment project was limited to a maximum of US \$ 100,000 (unless justified by a feasibility study) this amount in LE varied with the exchange rate. During the NUS period, this limiting value was LE 83,000 but in 1992 this rose to LE 330,000.
 - Of the projects which required the approval of feasibility studies, the most costly were the multiphase garage programs. For example, the average value for the major garages in Cairo and Giza was approximately LE 3 million.
- o An additional complicating factor for the financial monitoring group was the new responsibility for the tracking of projects in the Maintenance Plan of each district and governorate. The total number of maintenance projects, from 1987 to 1992, was 1749, requiring a total expenditure of LE 30,340,539.

Table 2.17

FINANCIAL PERSONNEL TRAINED DURING LD II URBAN

GOVERNORATE	NO. OF DISTRICTS	CHIEF ACCOUNTANTS	ACCOUNTANTS	CONTRACT OFFICERS	TOTAL
Cairo	20	20	85	32	137
Alexandria	6	6	27	14	47
Giza	5	5	22	13	40
Qaliubia	2	2	12	4	18
Port Said	5	5	16	10	31
Suez	4	4	14	10	28
Total	42	42	176	83	301

Source: Wilbur Smith Associates Training Records

23 INSTITUTIONALIZATION

The BSDS component of LD II Urban enjoyed exceptional success in institutionalizing the process of local government officials conceiving, formulating and implementing capital improvement plans.

23.1 Progress In Enhancing Local Capabilities

Prior to 1982 (the beginning of NUS), capital improvements were identified, planned, funded, contracted and completed by central government authorities. During the NUS years, great strides were made in enhancing the capabilities of local officials at the district level. District officials who had never had control of capital funds for the provision of basic services were given the opportunity to learn on the job. They were provided block grants and told to carry out construction programs.

The LD II Urban years then saw further expansion within the decentralization theme. The number of local government agencies participating in the program went from 28 in 1982 to 50 in 1992 as a result of absorbing two new governorates (Port Said and Suez), new districts in both Cairo and Giza, and the two Cleaning and Beautification Authorities in Cairo and Giza.

During LD II Urban, a large number of Government officials from the governorates and districts received training from LD II Urban. Engineers, accountants, financial managers, contracting officials, planners and senior decision makers attended a series of refresher courses or workshop

sessions, interspersed with on-the-job training (OJT), which provided repeated hands-on experience in successfully overcoming problem areas associated with planning, budgeting, design, and construction. By mid-1992, every district had a cadre of trained and experienced local government professionals who had developed and executed every phase of the Investment Plans.

2.3.2 Organization Management

A number of management processes introduced by LD II Urban are in place and hopefully will be adopted, at least partially, by future GOE decision-makers.

2.3.2.1 Needs Assessment Surveys

The Needs Assessment Survey is a vital planning tool which summarizes observed physical conditions in existing public facilities and projects current populations in order to determine actual future needs for expansion of existing or new public facilities. These reports should be available when the governorate and district planners begin each year to develop new Investment and Maintenance Plans.

The status of the LD II Urban Needs Assessment Surveys is presented below.

- o Health, Education and Youth Needs Assessment Reports which were completed early in the NUS years for the four original governorates have been updated twice. The Port Said and Suez reports were first completed in 1989 and have since been updated once.
 - Preparation of these reports is manpower-intensive in that each school, health facility and youth center must be visited and then meetings must be conducted by local staff with ministry and directorate officials. This concentrated effort results in the collection of pertinent, local demographic data, a current evaluation of the condition of local facilities and a statistical analysis of what is needed to meet future demands.
 - From 1988 to 1992, each update included less and less Wilbur Smith Associates input and became more of a district (GOE) product. The analysis function has now been automated at the governorate level and the reports of the latest updates were produced at each governorate MIS center.
- o Water, wastewater, roads and street lighting needs assessments are now being prepared in most of the participating governorates.
 - Seminars were conducted in every governorate to instruct engineers in how to gather data, then in how to use this data to prepare the maps which constitute the report. The purpose of these reports is to accurately identify which areas are adequately served and which areas need water mains, sewers, road extensions or street lighting; and then to prioritize their implementation.

2.3.2.2 Project Tracking Systems

- o Project tracking systems are now furnishing both financial and construction (plus procurement) data for all 50 participating agencies for a number of different fiscal year programs. During the

mid-years of LD II Urban, as many as 1300 separate projects were being simultaneously tracked every month. Now, because most of the projects have been completed, the number is much less.

- The English language monthly reports contained Forms 13, 14, and 15, (the basic components of the tracking system) which provided data on Investment Plan projects plus bar graphs. A number of these reports focused on maintenance projects, garages, and special reports. For approximately two years the English and Arabic reports were run in parallel while the Arabic system was being extended and improved. In December 1991, the English report was discontinued and complete reliance was placed on the Arabic version produced at the governorate level.
- The Arabic language version, which was developed on a quarterly basis, is another indicator of the success in institutionalizing the capital improvement process. One shortcoming, however, is that not all of the governorates are currently producing a complete package of forms, tables, and graphs.

2.3.2.3 Project Evaluations

In any capital improvement concept involving the construction or equipping of a number of facilities, there is a need for the responsible officials to know, in both a focused and an overall sense, what degree of success was achieved in this program. If data were available in a readable form, managers would be appreciative of a quantitative evaluation which would let them know how well the individual jobs were planned, designed, and built and whether these facilities (e.g., garages, clinics, schools, etc.) were being adequately utilized and properly maintained. Realistically, this would be an extremely complex procedure if attempted on major new facilities (e.g., a 500 bed hospital), but for small facilities, a complete evaluation procedure was developed and effectively implemented in LD II Urban.

- o The project rating system is comprised of a very detailed investigation and a numerical rating of each separate facility completed with LD II Urban funds. For normal small construction projects, a numerical score is assigned in six categories under the classification of "implementation" (planning, design and construction) and five categories under "operations" (how is the facility working and is it staffed, equipped and maintained properly?).
 - All 870 LD Urban projects in 1987 and 1988 were rated for both implementation and operations. All 1,136 NUS projects were also rated, but only for operations as it was difficult to locate all the records and reconstruct the conditions and quality of planning, design, and construction after many years of heavy usage.
 - The numerical analysis procedure involved weighing some of the categories to arrive at a composite score for each facility. The entire data and the analyses calculations were entered

into the computer. This has facilitated a number of comparisons of projects such as:

- . one district against another;
- . one sector versus another;
- . one financial year versus another.

2.3.3 Sustainability

The following list of questions was developed by the BSDS Team to cover the issues which most realistically reflected sustainability issues:

1. Is there a governorate entity responsible for establishing and applying the fund distribution and eligibility criteria?
2. Is there a governorate department responsible for coordinating the basic services needs assessment? Is it used for the preparation of Investment and Maintenance Planning?
3. Is there a system to prepare feasibility studies for large and complex projects?
4. Is there a system to prepare preliminary plans and cost estimates for proposed projects?
5. Is there local Popular Council participation in capital improvement planning?
6. Is an O&M system planned in advance for each proposed project?
7. Are complete tender documents prepared for each project?
8. Are staff adequately trained (Engineers, Finance Specialists and Technicians)?
9. Is a system for quality control and project rating implemented?
10. Does the governorate favor income generation projects? Does the governorate have a means for retaining revenues collected?
11. Is the maintenance funding adequate?
12. Is a system for financial monitoring applied?
13. Is the incentive system for BSDS staff effective?
14. Is a cash management system utilized?
15. Are staff provided with transportation to visit projects?

A value of one through five was assigned to each sustainability indicator, or test, based on an assessment scale (shown in Table 2.19). By adding up the values from each test, a total score was assigned which provided a comparative measure of sustainability of BSDS within a governorate. This is shown in Tables 2.18 and 2.19.

Table 2.18

BSDS - SUSTAINABILITY TESTS TOTAL SCORES

INDICATOR	ALEX.	CAIRO	GIZA	PORT SAID	QALIUBIA	SUEZ	AVERAGE
1	5	5	5	5	5	5	5
2	2	4	2	4	2	4	3
3	3	5	5	3	4	3	3.8
4	4	4	5	4	2	4	3.8
5	4	4	4	4	4	4	4
6	4	4	3	4	1	4	3.3
7	3	3	3	3	3	3	3
8	4	4	4	4	4	4	4
9	1	3	1	1	4	5	2.5
10	3	4	2	2	3	3	2.8
11	3	3	4	4	2	4	3.3
12	5	5	5	5	5	5	5
13	4	4	4	4	4	4	4
14	5	5	5	5	5	5	5
15	3	3	3	3	3	3	3
TOTAL	53	60	55	55	51	60	56
SUSTAINABILITY PERCENTAGE:	71%	80%	73%	73%	68%	80%	74%

Table 2.19

BSDS SUSTAINABILITY INDICATORS (Tests)

Scored Points

1. **Is there a government entity responsible for establishing and applying the fund distribution and eligibility criteria?**
 - No 0
 - Planned in principle 1
 - Arranged but not yet convened 2
 - Committee convened but criteria not established 3
 - Criteria established but not implemented 4
 - Committee very active 5

2. **Is there a governorate department responsible for coordinating the basic services needs assessment? Is it used for the preparation of Investment and Maintenance planning?**
 - No 0
 - At local level only (inefficient) 1
 - Inefficient at both local and central unit 2
 - Needs assessments effective but not considered for investment or maintenance planning 3
 - Results considered during decision making 4
 - Efficient at both local and central level, results are a prime consideration in Investment and Maintenance planning 5

3. **Is there a system to prepare feasibility studies for large and complex projects?**
 - No 0
 - Planned in principle 1
 - No qualified staff 2
 - Training courses are needed 3
 - Consulting offices are used if needed 4
 - Feasibility studies are prepared "in house" for large projects 5

4. **Is there a system to prepare conceptual description and unit costs for proposed projects?**
 - No 0
 - System is available but not in action 2
 - System is not adequately applied 3
 - Unit costs for typical projects need to be updated and used in budgeting 4
 - Proposed projects are well described and costed 5

5. **Is there Local Popular council participation in capital improvements planning?**
 - No 0
 - Occasional Involvement 1
 - No positive coordination between popular and executive councils 2
 - Sufficient data not available 3
 - Training courses are needed 4
 - Very active participation 5

65

Table 2.19 (Continued)

BSDS SUSTAINABILITY INDICATORS (Tests)

Scored Points

6. Is the O&M system planned in advance for each proposed project?	
• No	0
• Yes, but generally inefficient	1
• Yes, but it does not cover the whole needs (partially planned)	2
• Well planned but there are conflicts between the planning needs and the available resources	3
• Very efficient in some areas of service	4
• Very efficient in all the areas	5
7. Are complete tender documents prepared for each project?	
• No	0
• Non-professional staff	1
• Yes, but generally inadequate	2
• Incomplete drawings and specifications	3
• Consultant engineers are used to fulfill any shortage	4
• Complete tender documents produced "in house"	5
8. Are staff adequately trained (Engineers, Finance Specialists & Technicians)?	
• No training given	0
• Very little training given	1
• 25% of staff had some training	2
• 50% of the staff had some training	3
• 75% of the staff had some training	4
• All the staff fully trained	5
9. Is a system for quality control and project rating implemented?	
• No	0
• Quality control only	1
• Project rating only	2
• Both applied to minimum 50% of projects	3
• Both applied to minimum 75% of projects	4
• Both applied to all projects	5
10. Does the governorate favor income generation projects? Does the governorate have a means for retaining the revenues collected?	
• No	0
• No, but they plan to	1
• Yes, in 10% of facilities	2
• Yes, in 20% of facilities	3
• Yes, in 30% of facilities	4
• Yes, in 40% of facilities	5

Table 2.19 (Continued)

BSDS SUSTAINABILITY INDICATORS (Tests)

Scored Points

11. Is the maintenance funding adequate?		
. No		0
. The maintenance funds cover small percentage of the needs		1
. The maintenance funds cover 25% of projects		2
. The maintenance funds cover 50% of projects		3
. The maintenance funds cover 75% of projects		4
. The maintenance funds are adequate		5
12. Is a system for financial monitoring applied?		
. No		0
. No but system is planned		1
. Yes, at governorate level only		2
. Yes, at local level only		3
. Yes, at both levels		4
. Yes, applied reviewed regularly by governor		5
13. Is the incentive system for BSDS staff effective?		
. There is a system		0
. A system is planned in principle		1
. Inefficient at both district and governorate levels		2
. The distribution criteria is not established yet		3
. Insufficient amounts		4
. Effectuated the BSDS employees participation		5
14. Is a cash management system utilized?		
. No		0
. Planned in principle		1
. Not in action		2
. Behind schedule		3
. Activity applied in governorate level		4
. Activity applied in district level		5
15. Are staff provided with transportation to visit projects?		
. No		0
. Planned in principle		1
. Not in action		2
. No available cars		3
. Not enough cars for all the staff		4
. Efficient transportation for all staff		5

2.3.4 Major Issues

Needs Assessments/Project Rating

Senior decision makers at the governorate level are not fully utilizing either the needs assessment or the project rating concepts. Unfortunately, some officials still regard these reports as simply "requirements for USAID" and of no value to the governorates.

Engineering Staff

Spot checking construction quality or rating of projects requires an engineering background. Although the governorate-level planning and follow-up departments in the six urban governorates are tasked with these two responsibilities, only four of the six have managed to hire engineers.

2.4 RECOMMENDATIONS

In recognition of the need to enhance the solid gains of the NUS and LD II Urban, it is strongly recommended that technical assistance similar to that given under the BSDS component be included in any future decentralization programs funded by USAID. Although it seems clear that the annual capital improvement funds from USAID will be channeled through the Ministry of Local Administration and that parameters for the use of these funds will be almost wholly established by the Government of Egypt, it is believed that USAID should continue to offer guidance and support to specific programs in the fields of training, automation of accounting procedures, expanded usage of project ratings, cost estimating management systems, and human resources development.

2.4.1 Training

One of the noteworthy accomplishments of the BSDS component of LD II Urban was the training provided to financial managers, contracting officers, accountants, planners, engineers and technicians. The object of this continuous five-year schedule of on-the-job refresher instruction, workshops and formal class training was to build district and governorate staff capability so that these local government officers could conceive, budget, design, implement and monitor capital improvement systems. This task was completed. As a logical extension of LD II Urban, it is suggested that long-term training courses at post graduate level be established for engineers and financial managers. Middle level managers with obvious promise and a commitment to government service should be nominated. For example:

- a. Engineers could pursue an MS in Public Works Engineering, such as is offered by the University of Pittsburgh. A maximum of 2.5 years would be sufficient to complete this study course for local graduate engineers with a background in spoken and written English.
- b. Financial managers, contracting officers and senior accountants with a BSC degree and familiarity with English could be granted 2.5 year fellowships to gain an MBA with emphasis on government finance.

2.4.2 Automation of Accounting Procedures

The TAC (BSDS) financial team throughout LD II Urban provided a high level of technical assistance to the governorate and district accountants in establishing a new accounting system based on a blend of procedures and standards from both the government and the commercial accounting sectors. During this five-year period, personnel focused their efforts on training the accountants to ensure the accuracy of the financial data. The next logical step in strengthening the financial reporting units is to automate the accounting sections.

It is therefore recommended that each governorate and district accounting section be provided with a computer work station and appropriate training for the personnel.

2.4.3 Expanded Usage of Project Ratings

During LD II Urban, several thousand completed projects were subjected to rigorous scrutiny including a review of the monitoring records and visits to the sites. This process was called the project rating system and each project was evaluated and assigned a numerical score. Composite scores were then calculated and computer comparisons were generated in a number of categories. From this work, analyses of the results served to visually display performance indicators and to provide such information as:

- a. Which sector had the greatest number of revenue generation projects? Which sector had the least number of jobs which had excessive construction cost overruns?
- b. Which governorate had the best record for finishing jobs on time? Which district had the highest scores in quality of design?

It is recommended that the procedures for selection of projects be (1) based upon project ratings, and (ii) than transferred to the districts through the Ministry of Local Administration. These procedures would identify areas of highest payback (e.g., revenue generation) or, conversely, areas of weakness (e.g., construction quality) which need additional training.

2.4.4 Cost Estimating Management Systems

During LD II Urban, district engineers had continuing difficulties with construction cost estimates and, in the early years, many jobs went far over budget. Thus, it became clear that there was a need in Egypt for a construction cost index so that developers, builders, contractors, engineers and planners could have a valid database on local material and labor costs within the different regions of Egypt.

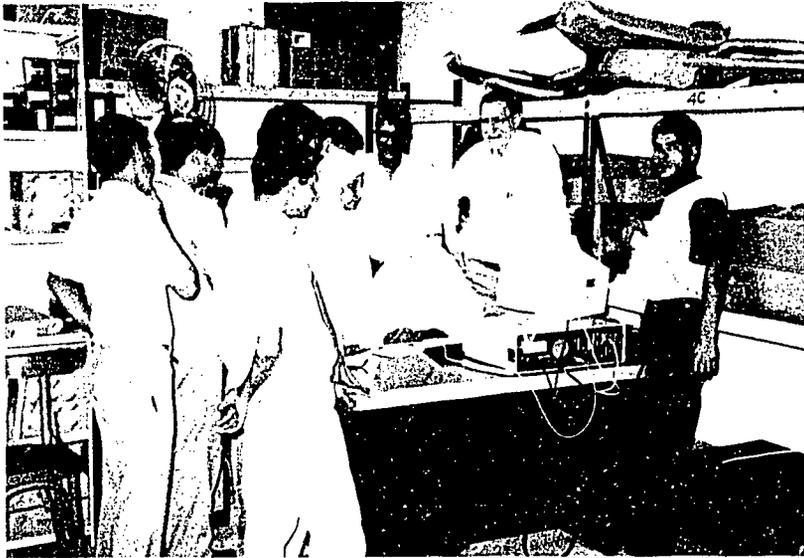
In an effort to resolve this shortcoming, the BSDS Team staff coordinated with the districts to gather valid construction cost data. Approximately 100 contracts for 1990, for typical construction jobs, were collected from the 6 participating urban areas. An analysis was then performed to establish material prices as well as a range of composite costs (e.g., the price of a standard classroom in Suez or the cost of 100 laying meters of 225 mm clay sewer pipe in Cairo). Manuals providing the indexes were printed and seminars were conducted to instruct the district engineers in their usage. Such up-to date local cost data has since proven to be a valuable tool to the district engineers. They are currently gathering data for a 1992 update.

It is recommended that this small beginning be expanded into a separate future project to be funded by USAID. One expatriate engineer with a local staff of engineering estimators and

financial managers could, within a four year period, establish a genuine Egyptian Construction Cost Index which would be available to serve the entire construction industry. The work would be performed under the umbrella of the Egyptian Engineering Syndicate which would encourage the use of the data by all of its members. The expatriate engineer, two financial advisors and administrative support would be headquartered in Cairo. Small offices to gather the data would be located in Alexandria, the Canal Cities, and Upper Egypt (e.g., Minia). The Index would be published on a quarterly basis.

2.4.5 Human Resources Development

During LD II Urban, TAC continuously promoted the use of local consulting engineers to assist with difficult design or construction problems. These efforts, however, were received with little enthusiasm by district chiefs and other senior Government of Egypt managers who could not visualize a reason for giving funds to consultants when they already had a number of engineers on their staff. In spite of this lack of success, it is still believed that privatization of government engineering design by encouraging the use of local consulting offices would prove extremely beneficial to the construction industry since the governorate engineers would benefit by the additional exposure to private sector expertise. Examples would be in the analysis of the failure and the design of unusual structures like X-ray rooms, abattoirs or pumping stations. Moreover, during times of heavy workloads, it is cost effective to utilize the services of a consultant as opposed to hiring one or more engineers in permanent positions.



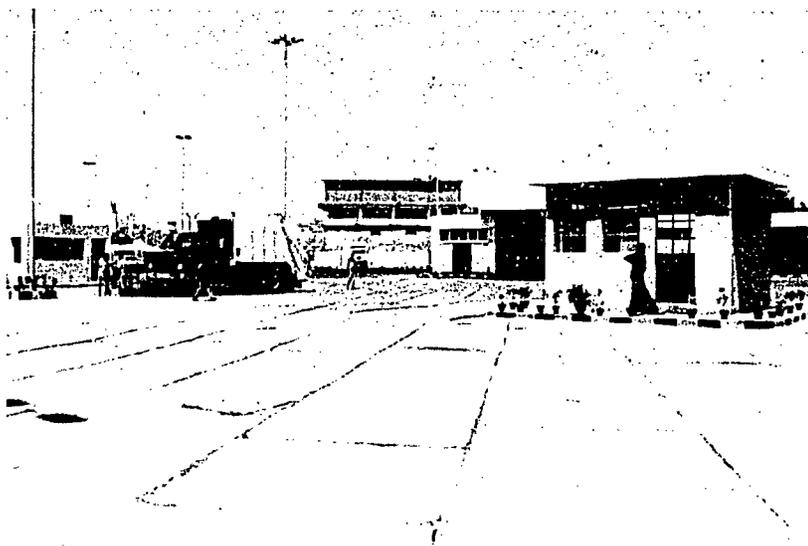
**COMPUTERIZED O & M INVENTORY SYSTEM -
CAIRO GOVERNORATE**



**ROAD MAINTENANCE TRAINING -
SUEZ GOVERNORATE**



**VEHICLE MAINTENANCE TRAINING -
ALEXANDRIA GOVERNORATE**



**NEW VEHICLE MAINTENANCE CENTER -
ALEXANDRIA GOVERNORATE**

Section 3

OPERATIONS AND MAINTENANCE (O&M)

3. OPERATION & MAINTENANCE (O&M)

3.1 TARGETS AND RESULTS

The principal Operation & Maintenance (O&M) task during LD II Urban was the development of local government's ability to manage and maintain its vehicles, equipment, roads and streets through sustainable and effective maintenance systems. To achieve this, the O&M Team pursued the following:

- Advise and persuade governorates to develop O&M needs assessments;
- Implement garage and workshop construction programs;
- Develop sustainable maintenance management systems;
- Develop computerized and/or "Kardex"-run spare parts warehouses and inventory control systems;
- Establish maintenance libraries in all major new facilities;
- Develop and implement O&M special projects;
- Prepare economic analysis reports;
- Develop, implement and monitor income generation, leasing and privatization;
- Develop road maintenance plans and systems;
- Carry out intensive training for managers, engineers, supervisors, mechanics, operators and laborers.

3.1.1 Level Of Technical Assistance

The level of technical assistance varied over the life of LD II Urban. Initially, the major effort was spent developing plans and assisting governorates and districts to get their fledgling construction programs off the ground. Then, as facilities became operational, much more emphasis was placed on site assistance and on-the-job training.

Contractor Personmonths

A total of 552.5 professional and 20 non-professional personmonths were expended on O&M under LD II Urban.

Training

Trainees (GOE staff from O&M facilities) received a total of 27,680 days of instruction at a cost of LE 367,653.

3.1.2 Garage and Workshop Construction Program

When LD II Urban was conceived, all governorates suffered from a lack of modern, convenient garages and workshops. There was however the realization that provision of such facilities would significantly benefit the governorate/district efforts to efficiently provide services to the public. The initial task for the Technical Assistance Contractor (TAC) was therefore to ensure that appropriate facilities were constructed. This proved to be an interesting but difficult task as the engineers employed by governorates and districts had virtually no experience of designing

facilities of this nature. It was considered that the easiest answer would have been for the TAC to either design all of the facilities "in house", or provide a series of standard designs to be incorporated in the facility designs by the GOE staff. This philosophy was not adopted however, as it would not have served the very important task of developing the ability of the GOE staff to function independently in the future. The actual approach taken was one of providing intensive on-site training whereby GOE designers were initially taught first principles of operation and maintenance. Armed with this knowledge they were encouraged to prepare outline designs specific to the particular sites being considered. These were then submitted to the Technical Assistance Contractor for evaluation and further advice. By necessity this process produced a number of very different but interesting and functional facilities.

Results: With the exception of those¹ shown below, all garages and workshops planned for construction in Phase I were completed and are being utilized. There were 33 district garages, seven zonal workshops, four central workshops and two road directorate garages and workshops. Table 3.1 summarizes the O&M Phase I construction and renovation in all governorates. The construction and renovation program, Phase I, covered all districts and governorate needs in Giza, Qaliubia, Alexandria, Suez and Port Said. In Cairo, the program covered 60% of district needs (20 districts). These facilities provide the most visible manifestation of the LD II Urban O&M component and they stand as a proven reminder of governorate achievements.

3.1.3 Maintenance Management Systems

At the beginning of LD II Urban, maintenance was a word not readily utilized in the GOE vocabulary. Preventative maintenance was a concept which very few even considered. The task facing the TAC was therefore one of education. It was considered essential that senior GOE decision makers should understand the need for innovative maintenance and management systems to complement the newly constructed modern facilities. A series of seminars and meetings were therefore conducted and the necessary momentum was established.

Results: - Garage and Workshop Organization

All governorates have now developed and submitted revised organization charts, for district, zonal and central facilities to the Central Organization for Administration for approval. Responsibilities for preventative maintenance and repair levels have been defined. Charts 1, 2, 3, 4 and 5 in Appendix 5 show examples of organization charts and management communication channels that were adopted. Although these charts vary in detail, each has adopted the principals that (i) it was necessary to coordinate O&M functions within a governorate and (ii) it was beneficial if advisory bodies were empowered to advise, coordinate and control O&M functions on behalf of governorates. Here again, implementation varies between governorates; Alexandria Governorate for example formed an O&M subcommittee whereas Cairo and Giza required their Cleaning and Beautification Authorities (CCBA & GCBA) Boards of Directors to develop O&M strategies and plans.

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- ¹
- El-Nozha zonal garage in Cairo (75% complete)
 - Qaliubia Maintenance Center (80% complete)
 - East District (Semouha) in Alexandria (75% complete)

Table 3.1

GARAGE AND WORKSHOP CONSTRUCTION AND RENOVATION PROJECT

PHASE I

ZONAL/DISTRICT GARAGE	ZONE	ZONAL/DISTRICT WORKSHOP	CONTRACTED COMPLETION DATE	UTILIZATION DATE	
				ANTICIPATED	ACTUAL
1. CAIRO GOVERNMENT. (CCBA)					
El-Kassarat	North	El-Zawia	Feb. 1990		Mar. 1990
El-Salam (zonal)	North	El-Mataria Ain Shams zonal workshop	Jan. 1990		Aug. 1992
El-Nozha (zonal)	East	Heliopolis Nasr City	Nov. 1992	Jan. 1993	
El-Mokattam (zonal)	South	South Maadi Misr El-Kadima zonal workshop	Dec. 1990		Feb. 1991
El-Waily	West	El-Waily Manshiat Naser	Mar. 1991		June 1991
El-Sayeda Nafisa (zonal)	West	Central Abdeen zonal workshop	Nov. 1988		Nov. 1988
2. GIZA GOVERNMENT. (GCBA & CITY)					
Imbaba (renovation)	Giza City	Giza City garage	Mar. 1987		Sept. 1989
Giza City Council	Giza City	Giza City Council garage	May 1987		Dec. 1989
Bein El-Sarayut (renovation - zonal)	GCBA	GCBA garage # 2	Mar. 1987		Sept. 1989
Desert Road (central)	GCBA	GCBA garage # 1	Mar. 1992		Apr. 1992
3. SHOUBRA EL-KHEIMA (QALIUBIA)					
Shoubra El-Kheima maintenance center	Shoubra El- Kheima	Central Workshop Central Service Stn. East District	July 1992	Jan. 1993	

Source: Wilbur Smith Associates

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Table 3.1 (Cont.)

GARAGE AND WORKSHOP CONSTRUCTION AND RENOVATION PROJECT

PHASE I

ZONAL/DISTRICT GARAGE	ZONE	ZONAL/DISTRICT WORKSHOP	CONTRACTED COMPLETION DATE	UTILIZATION DATE	
				ANTICIPATED	ACTUAL
4. ALEXANDRIA GOVERNORATE					
Ras El-Soda	Montaza	Montaza			Jan. 1990
Amreya	Amreya	Amreya			Feb. 1989
Moharram Bey (zonal)	Moharram Bey	Central Gomrok West zonal workshop Emergency fleet			Mar. 1990
5. PORT SAID GOVERNORATE					
Central garage	Governorate	Governorate	Jan. 1990		Mar. 1990
Central workshop	Governorate	Governorate	Mar. 1991		Mar. 1991
East District	East	East District	Feb. 1990		Mar. 1990
Port Fouad (renovation)	Port Fouad	Port Fouad (district)	Oct. 1991		Jan. 1992
El-Dawahi	El-Dawahi	El-Dawahi (district)	Jan. 1992		Jan. 1992
El-Manakh	El-Manakh	El-Manakh (district)	Jan. 1992		July 1992
El-Arab	El-Arab	El-Arab (district)	Jun. 1992		Aug. 1992
Road Directorate	Governorate	Road Directorate garage	May 1991		Dec. 1991
6. SUEZ GOVERNORATE					
Central workshop	Governorate	Central workshop		Jan. 1993	
Central service station	Governorate	Central workshop	Jan. 1991		Mar. 1991
Arbaeen District	Arbaeen	Arbaeen (district)	addition, improv. continue as funds became available		Utilized
El-Ganayen District	El-Ganayen	El-Ganayen District			Utilized
Suez District	Suez	Suez District			Utilized
Attaka District (renovation)	Attaka	Attaka District			Utilized
Road Directorate	Governorate	Road Directorate	addition, improv. continue as funds became available		Utilized

Source: Wilbur Smith Associates

- Needs Assessment

As a result of the needs assessment seminars held in 1991, and the close technical assistance provided by the O&M Team, governorates are now able to develop their needs assessments in a well organized manner.

- Preventative Maintenance and Repair Planning

Preventative maintenance and repair planning and scheduling were routinely introduced in all new facilities. Plans were prominently displayed and engineers and mechanics now understand the benefits to be gained by the use of these plans. Some engineers and managers are however more conscientious than others when implementing the systems. The TAC's annual report for 1991 showed that this occurred as a result of the following factors:

- a) Quality of managers available to governorates within the confines of existing salary and incentive policies;
- b) Lack of skilled labor in some garages and workshops;
- c) Shortage of spare parts and unavailability of hard currency to import spare parts;
- d) Inadequate O&M budgets;
- e) Lack of money to spend on major repairs in specialized dealers firms.

Selected facilities in Cairo, Giza and Alexandria have been encouraged to computerize their maintenance management systems and this initial approach is being well received.

- Spare Parts Warehousing

Intensive "Kardex" (inventory) warehousing training and implementation of the Kardex warehousing systems took place in all new facilities. Computerization was introduced to the Sayeda Nafisa zonal garage (Cairo), the Alexandria central workshop and the Giza Cleaning and Beautification Authority (GCBA) central warehouse at the Giza Desert Road facility. Computer training was given to engineers and other technical staff. In-house programs for spare parts control and vehicle maintenance systems were developed.

- Tools and Equipment

The introduction of modern tools and equipment was given priority and governorates were provided tire repair machines, electronic engine testing equipment and stands for engine repair, etc. All teams working on these machines received technical training on operating and maintaining them.

- Technical Libraries

Reproduced spare parts catalogues and shop service manuals were distributed to all governorates. Eighteen technical libraries became operational in the six governorates. Sets of manuals were given to the Ministry of Local Administration for the three new facilities under construction, namely the El-Nozha zonal garage (Cairo), the Shoubra El Kheima maintenance center (Qaliubia) and Semouha (East District - Alexandria). A complete record of the manuals issued is provided in Appendix 6.

The principal effects of this technical assistance effort have been that select groups of well trained staff are available in governorates and districts; however, even with all the good will and expertise in the world, it is unrealistic to expect an aging fleet of service vehicles to remain "on the road" (operational or available for use) indefinitely. The 'on the road' availability shown in Figure 3.1 reflects a very serious situation as initial gains are now being lost.

3.1.4 Economic Analysis

The constraints imposed by limitations on funding for the O&M component have long been a source of concern. The TAC determined that it was necessary to highlight the need for a substantial increase in spending on vehicle maintenance. Two economic analysis studies were developed:

- (i) Operation and Maintenance - Preliminary Economic Analysis - January, 1991. The purpose of this study was to: (a) assess the cost savings resulting from the preventative maintenance program, and (b) highlight the need for increased maintenance and capital investment funding.
- (ii) Economic Analysis of Maintenance - Revenue Generation Options - June, 1992. This study was to evaluate (a) income generation, (b) management contracts, (c) leasing and (d) privatization.

Results - The first report showed that vehicle availability improved dramatically soon after the implementation of the preventative maintenance program but it predicted that if maintenance spending was not increased, availability would decline. Inventory and status of fleet statistics used in the first report are provided in Appendix 8.

The financial benefits to be derived from these two studies were found to be:

- (i) lower BAB III capital investment needs;
- (ii) reduced pressure for additional BAB II maintenance funding through reduced equipment/major repair costs.

- The second report concluded that the most feasible option (both financially and legally) would probably be "income generation" since it does not involve an outside agency and it is a usual pre-requisite for the other options which may then be implemented selectively as opportunities present themselves.

Technical assistance was given to GOE officials to (i) prepare basic decrees, (ii) develop contract documents and (iii) develop bylaws, prepare cost analyses and determine practical billing rates.

3.1.5 Income Generation And Leasing

From both the initial observations of the O&M Team and the economic analyses undertaken, it was noted that there was a need to generate income to support maintenance spending. It was determined that this could best be done by providing maintenance services to other governmental agencies and the public and private sectors.

'ON-THE-ROAD' AVAILABILITY

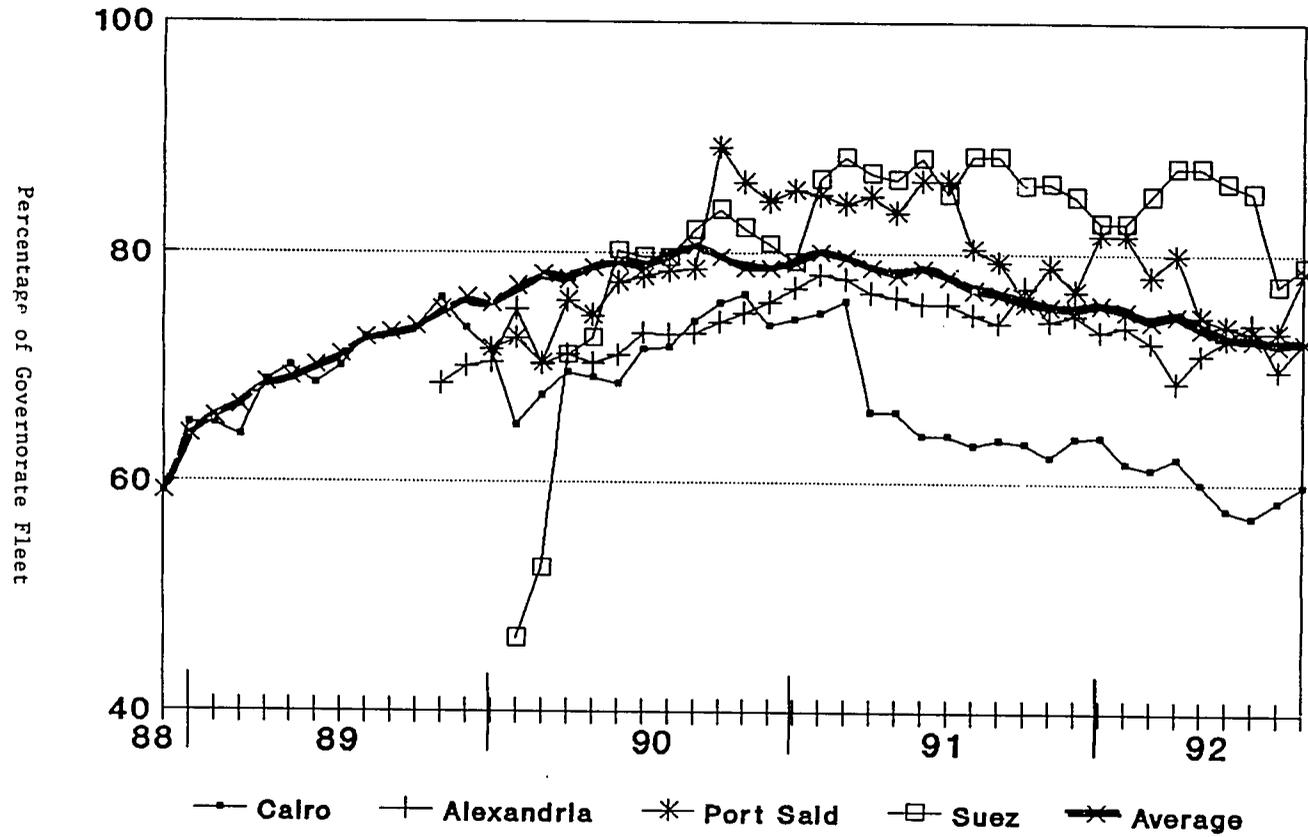


Figure 3.1

3-7

Results: Income generation projects were developed, and are continuing successfully in El Amreya district garage (Alexandria), as shown in Table 3.2, and in Suez central workshop and service station. The Giza Cleaning and Beautification Authority and the Port Said Governorate are both considering implementing income generation projects in their facilities. Leasing and/or contract management of O&M facilities seem to have the most chance of success in Cairo and Qaliubia. The Cairo Governor is urging the Cairo Cleaning and Beautification Authority to lease some zonal workshops to specialized private sector companies and the Qaliubia Governor is being asked to consider the contract management option. The TAC assisted in the preparation of standard terms of reference for prospective bidders. It must be noted that these good intentions could however still be delayed or lost in the government bureaucracy as there is significant reluctance in some legal and administrative offices to interpret existing law in a manner which would allow governorates and districts to retain money generated by their efforts. Governors may yet have to lobby parliament to issue new laws, or give favorable interpretation of old ones, before success can be achieved in this important area.

3.1.6 **Road Maintenance:**

When LD II Urban's Diagnostic Report was published in 1988, it was decided that the TAC, in conjunction with governorate and district personnel, would:

- o Identify engineering standards, practices, and materials and equipment specifications;
- o Integrate the governorate workforce and private sector maintenance contractors into overall maintenance activities;
- o Prepare a two-year maintenance program for equipment;
- o Propose improvements to the incentive wage plan;
- o Establish management review and update procedures.

Specific technical assistance was also to be given to Suez Governorate under a special project for "Training and Reorganization of the Governorate Roads Directorate."

Results: Strategy plans were prepared by the TAC in 1989-90 for all six urban governorates, and the special project in Suez was successfully completed.

The O&M Strategy Plans included:

- (i) A definition of different levels of responsibilities and authority;
- (ii) Long and short-term plans for road maintenance;
- (iii) Engineering standards, practices and performance indicators;
- (iv) Organization charts for road directorates.

As a result of the success gained through the Suez special project, it was decided to expand the scope of work for the O&M section to encompass the recommended training elements of the O&M strategy plan in each governorate. This was achieved by providing intensive on-the-job training for three-to-four month periods in relevant road directorates, governorates and districts. One day per week was spent in the classroom, where presentation of material such as International Road Federations video tapes (Arabic Version), WSA reports on the Suez special project, and the Economics of Road Maintenance and Operations manuals, were followed by question

Table 3.2

EL AMREYA DISTRICT GARAGE PILOT PROJECT

INCOME GENERATED BALANCE

(From April 1, 1990 To June 30, 1992)

P E R I O D	TOTAL INCOME IN LE	GARAGE EXPENSES		PAYMENTS		NET PROFIT IN LE
		LE	% of Total Income	LE	% of Total Income	
Apr. 1, 90 - June 30, 90	5,445.00	89.75	1.65	862.00	15.83	4,493.25
July 1, 90 - Sept. 30, 90	10,087.75	7,496.00	74.31	1,422.50	14.10	1,169.25
Oct. 1, 90 - Dec. 31, 90	14,027.00	7,943.00	56.63	1,900.95	13.55	4,183.05
Jan. 1, 91 - Mar. 31, 91	19,152.97	6,997.03	36.53	5,099.55	26.63	7,055.39
Apr. 1, 91 - June 30, 91	24,233.97	19,199.10	79.23	5,279.10	21.78	- (244.23)
July 1, 91 - Sept. 30, 91	27,238.50	5,458.60	20.00	4,724.15	17.34	17,055.75
Oct. 1, 91 - Dec. 31, 91	48,427.65	25,025.70	51.68	9,623.80	19.87	13,778.13
Jan. 1, 92 - Mar. 31, 92	41,470.95	17,199.10	41.47	7,351.40	17.73	16,920.45
Apr. 1, 92 - June 30, 92	59,748.50	33,943.18	56.81	7,907.60	13.23	17,897.72
TOTALS	249,832.29	122,851.46	49.17	44,171.05	17.68	82,308.76

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and answer periods. The remaining five days per week were spent at specific sites practicing techniques learned for:

- Pothole repair;
- Short asphalt overlays;
- Curbstone replacement or reset;
- Footpath repair;
- Grading or shaping of unpaved streets.

A valuable offshoot of this effort was the development of GOE Peer Trainers, a fact commented upon in nearly all of the end-of-program evaluation sessions conducted by the TAC O&M maintenance specialists.

3.1.7 Training In Support Of O&M

It was recognized at the onset of LD II Urban that it would be necessary to develop an extensive range of skills at all levels if the GOE was to make a success of its new venture into modern O&M.

Groups targeted by the O&M training efforts were identified according to (a) positions and/or functions, (b) level of education and (c) line of authority. Groups included:

- Heads of departments (finance, administration, technical, purchasing, contracting);
- Managers (of garages, workshops, warehouses);
- Engineers;
- Technicians and supervisors;
- Mechanics;
- Electricians;
- Storekeepers;
- Accountants;
- Auditors;
- Purchase representatives;
- Drivers;
- Clerks;
- Workmen and laborers.

Results: During 1990, 1991 and 1992, O&M training accounted for over 50 percent of the total LD II Urban training effort. Garage and workshop management, preventative maintenance and vocational training made up the large majority of the O&M training as new facilities rapidly became operational.

A summary of the operation and maintenance training effort showing all courses in all governorates is given in Appendix 15. A brief overview of these courses is given below.

- a. **Garage Management** - Considerable attention was paid to the training of garage/workshop managers and senior officials as it was realized that the impetus for a successful program would generally come from the top down. A six-day course was originally developed by the TAC. This was gradually enhanced by Productivity Improvement, Industrial Engineering and Management Development Company (Pimco) to become the standard LD II Urban 18-day management course. Both courses upgraded the skills of managers and engineers and it was considered advantageous to send the best students to the USA to further their studies.

Two overseas management courses were run. The first 15-day course concentrated on garage and workshop operation for engineers. Thirteen engineers, two from each governorate and one additional from Cairo, attended. The second course for managers was also for 15 days and attended by 13 managers.

The main objectives of the courses were to get managers and engineers acquainted with modern O&M management systems in both the government and private sectors. The two courses aimed at promoting the professional capabilities of the trainees in garage management, spare parts control, performing planned preventative maintenance and repairs, industrial safety and technical training.

- b. **Warehousing/Procurement** - Kardex warehousing system courses were developed locally. These five day courses were run in governorates to train spare parts engineers and store keepers. When Kardex systems were introduced in all new facilities, the training courses were supplemented by on-the-job training. A ten-day procurement management course was also developed. This course aimed at developing the abilities of procurement staff to prepare concise specifications and follow correct procurement procedures.
- c. **Preventative Maintenance Training** - Preventative maintenance training accounted for the majority of the total LD II Urban training effort. On-the-job training was given in all new facilities for engineers, supervisors, mechanics and operators. This basically covered procedures for performing the various levels of preventative maintenance for all types of vehicles and equipment (emphasis was given to the USA-made garbage collection and cleaning fleets). All courses took three to four days. Fifteen preventative maintenance manuals were developed and distributed.
- d. **Vocational Training** - The skill levels of mechanics and tradesmen were developed through several courses given both in the Government Construction Equipment Training Center and by the Productivity Vocational Training Department. The duration of these courses ranged from four to eight weeks and they covered engine overhauls, hydraulic and transmission systems inspection and electrical system maintenance and repair. On average, on-the-job training accounted for approximately 60 per-cent of course content.
- e. **Special Courses** - The following courses were developed as need was defined:
 - (i) Industrial Safety - A six-day course in TOMOHAR
 - (ii) Flexible Paving - A local three-day course
 - (iii) Computer Training - As computers were introduced in the new O&M facilities in Cairo, Alexandria and Giza, local courses were developed. DOS training took place in the three governorates. Trainees are now operating their computers.

3.2 IMPACTS

3.2.1 Awareness

One of the major achievements of the O&M component was that governors, secretaries general, district chiefs and department heads at the governorate and district levels became aware of the vital importance of maintaining their fleets. As a result, governorates and districts began to allocate increased funds for fleet maintenance. The negative effects of aging are however starting to outweigh the positive effects of increased funding.

3.2.2 Equipment Utilization

Planning, scheduling and implementing preventative maintenance programs in new facilities have had a direct positive impact on fleet availability whereby the necessary vehicles or equipment are available for use when required. Therefore the level of service which the governorates and districts can offer to the low income urban residents has consequently been maintained. All facilities showed an initial improvement as a result of better operating conditions, preventative maintenance and on-the-job training.

3.3 INSTITUTIONALIZATION

3.3.1 Popular Councils/Governorate Policy Committees

The involvement of Popular Councils and governorate policy committees in the development of the maintenance programs was consolidated during the life of LD II Urban. The system now adopted by the governorates is for their officials and technocrats to develop proposals for investment and maintenance plans prior to being studied by the governorate or district Local Development Committees (usually chaired by the governors). These committees, in turn, submit proposals to the relevant Popular Councils for consideration. Once Popular Councils approve the plans, they are initiated and the council members monitor progress at their monthly committee meetings.

In the larger governorates of Cairo and Giza, a significant proportion of the detailed O&M analysis is undertaken by the Boards of Directors of the Cleaning and Beautification Authorities. The role of the Popular Councils in these cases is therefore more related to policy issues. All governorates were advised to form specific O&M subcommittees or alternatives which could function as the link between the workshops and garages and the governors. Here again, the Boards of Directors in the Cairo and Giza Cleaning and Beautification Authority took on the functions of O&M subcommittees. Alexandria Governorate formed an O&M subcommittee early in LD II Urban and this functioned well. Shoubra El Kheima, Port Said and Suez are still working towards forming central O&M departments at the governorate level. Applications have been submitted to the Central Agency for Organization for Administration for formal approval.

3.3.2 Organization/Management

Organization charts have been prepared for all district, zonal and central garages and workshops in all governorates. Levels of preventative maintenance and repairs have been defined and the responsibilities of each garage and workshop have been determined. Lines of authority and communication systems were proposed. Early in LD II Urban, these proposals were submitted to all governorates. Governorates reviewed the proposals, accepted and adopted them informally. Reviewed organization charts were submitted to the Central Agency for Organization for Administration for approval.

3.3.3 Capacity Building/Resource Mobilization

In 1989, the TAC developed a four-year needs assessment plan for each governorate. Governorates implemented these plans and they reviewed/updated them annually. Table 3.3

shows the proposed budget allocations (USAID funds) and actual expenditures. O&M allocations for each governorate are detailed in Appendix 9.

The need for the government of Egypt to pay realistic incentives to engineers, mechanics, operators and laborers has been understood for a long time. The means of providing sufficient maintenance funds have, however, proven problematic and income generation, in any one of its forms, is considered essential. The achievements of governorates in institutionalizing this effort is summarized below.

(i) Alexandria:

In 1990 the District Chief of El Amreya issued a decree to initiate income generation in the El Amreya district garage by providing maintenance services to other governmental agencies and to both the public and private sectors.

Table 3.3
Proposed Budget Allocations and Actual
Expenditures For Fiscal Year
1988 - 1992

Item	Budget estimates (L.E. 1,000)					Actual Allocation (L.E. 1,000)				
	88	89	90	91	92	88	89	90	91	92
1. Upgrading, renovation or construction.	3742	6553	6161	4350	3705	3742	7341	4706	2545	*
2. Purchase of imported spare parts.	2250	-	348	1220	1220	2250	-	-	-	*
3. Purchase of locally produced spare parts.	750	930	1932	2147	1940	750	881	563	3211	*
4. Purchase of equipment and tools.	150	331	612	749	200	150	686	607	347	*
5. Purchase of vehicles	622	10198	9252	7719	8852	622	5953	4839	1723	*
6. Major repairs in private sector	717	1536	1577	1534	1640	717	290	373	341	*
Total	8878	19548	19882	17719	17557	8878	1515	11088	8167	*

* Investment Plan not yet prepared for fiscal year 1992.

Source: Wilbur Smith Associates (WSA)

The Montaza District Chief intends to follow the EL Amreya example for his Ras El-Soda garage. The local Popular Council has approved this concept, and the district is in the process of issuing the necessary bylaw regulation.

(ii) Suez

The Suez Governor issued directive No. 23/1992 to generate income by vehicle maintenance services in both the central fuel and service station and the central workshop.

(iii) Giza

The GCBA is providing vehicle maintenance services, and is currently reviewing the actual cost and prices of services. It is also promoting its services to other government agencies and to public and private sectors.

(iv) Cairo

Under the guidance of the Cairo Governor, the CCBA is planning to lease some zonal workshops to interested private sector companies.

(v) Qaliubia

Qaliubia governorate plans to either lease the new maintenance center in Shoubra El Kheima to the private sector or operate it under a management contract similar to those used in the government-owned hotel industry. The Shoubra El Kheima City Council will be able to use the experience that will be gained by the Cairo Cleaning and Beautification Authority.

(vi) Port Said

Both the public and the private sectors in Port Said have requested that O&M facilities provide preventative repair and maintenance services for them. Keen interest has also been shown by garage and workshop management. A draft decree is presently being considered by the Governor.

3.3.4 Sustainability

The following indicators, or tests, were defined to measure the sustainability of the O&M component:

1. Is there a governorate entity (committee, board of directors, etc.) responsible for establishing O&M policy?
2. Is there a maintenance coordinator or a governorate department responsible for giving technical O&M advice to the governor?
3. Is there a parts control system?
4. Is funding of spare parts adequate?
5. Are other O&M needs funded?
6. Are the O&M systems integrated?

7. Are staff adequately trained?
8. Are accounting systems in place and are cost records kept?
9. Does governorate utilize income generation, leasing and/or privatization?
10. Does governorate utilize service contracts with dealers?
11. Are preventative maintenance and repair schedules established and utilized?
12. Are facilities fully staffed?
13. Do workshops have full complement of tools, furniture and equipment?
14. Is there a maintenance schedule for projects and is it followed?

A value of one through five was assigned to each sustainability indicator, or test, based on an assessment scale (shown in Table 3.5). By adding up the values from each test, a total score was assigned which provided a comparative measure of the sustainability of O&M within the governorates. This is shown in Tables 3.4 and 3.5.

3.4 RECOMMENDATIONS

3.4.1 Completion Of Garage Construction Program

To complete the network of modern facilities, it is recommended that governorates be encouraged to implement the Phase II garage and workshop construction project shown in Table 3.6.

3.4.2 O&M Funding

The economic analysis studies developed by the TAC showed the need for increased spending on O&M. A continuous flow of spare parts must be ensured if a successful preventative maintenance concept is to be executed. The repair of accumulated defective vehicles and equipment also demands significant levels of expenditure. Table 3.7 shows recommended levels of funding.

3.4.3 Income Generation, Leasing and Privatization

It is recommended that every effort be made to (i) encourage and nurture existing income generation, leasing, and privatization efforts and (ii) promote new opportunities for these efforts in the future. An example of how this could be achieved is to encourage decision-makers to view the O&M Economic Analysis video.

Table 3.4

OEM - SUSTAINABILITY TESTS TOTAL SCORES

INDICATOR	ALEX.	CAIRO	GIZA	PORT SAID	QALIUBIA	SUEZ	AVERAGE
1	5	5	5	4	4	4	4.5
2	5	5	5	5	5	5	5
3	4	4	3	2	0	0	2.2
4	3	3	4	3	3	4	3.3
5	3	3	3	4	3	4	3.3
6	5	4	4	4	4	4	4.2
7	3	3	3	3	3	3	3
8	3	3	2	3	2	3	2.7
9	3	1	3	1	1	4	2.2
10	3	3	3	3	3	3	3
11	5	4	5	5	1	5	4.2
12	3	3	2	4	2	4	3
13	4	4	4	4	4	4	4
14	5	5	5	5	5	5	5

TOTAL: 54 50 51 50 40 52 49.5

SUSTAINABILITY
PERCENTAGE: 77% 72% 73% 72% 57% 75% 71%

Table 3.5

O&M SUSTAINABILITY INDICATORS (Tests)

		Scored Points
1.	Is there a governorate entity (committee, board of directors, etc.) responsible for establishing O&M policy?	
	. No	0
	. Idea accepted in principle by governor	1
	. Board members selected by governor but committee not convened	2
	. Yes, meets occasionally	3
	. Active - meets every quarter	4
	. Very active - meets once a month	5
2.	Is there a maintenance coordinator or a governorate department responsible for giving technical O&M advice to the governor?	
	. No	0
	. No, but need accepted in principal by governor	1
	. No, but job descript./organiz. proposals submitted to governor	2
	. Yes, position functioning informally	3
	. Yes, request made for CAO A approval	4
	. Yes, CAO A approval given	5
3.	Is there a parts control system?	
	. No	0
	. Yes, but generally inefficient	1
	. Yes, but at central level only	2
	. Yes, functions at most levels	3
	. Yes, operates fully on Kardex	4
	. Yes, fully computerized	5
4.	Is funding of spare parts adequate?	
	. Practically no allocation	0
	. Allocation supports 20% of need	1
	. Allocation supports 40% of need	2
	. Allocation supports 60% of need	3
	. Allocation supports 80% of need	4
	. Yes	5
5.	Are other O&M needs funded?	
	. Practically no allocation	0
	. Allocation supports 20% of need	1
	. Allocation supports 40% of need	2
	. Allocation supports 60% of need	3
	. Allocation supports 80% of need	4
	. Yes	5

Table 3.5 (Continued)

O&M SUSTAINABILITY INDICATORS (Tests)

	Scored Points
6. Are the O&M systems integrated?	
. No	0
. Integration is planned	1
. Partial integration by function (vehicles, water equipment etc.)	2
. Partial integration by authority (village, markaz/district, gov.)	3
. Partial integration by function and authority	4
. Total integration	5
7. Are Staff adequately trained?	
. No training given	0
. Very little training given	1
. Over 50% of staff have had some training	2
. Over 75% of staff have had some training	3
. Comprehensive training program prepared and actively pursued	4
. All staff fully trained	5
8. Are accounting systems in place and are cost records kept?	
. No	0
. Planned but not implemented	1
. Some attempt made to implement modern accounting procedures	2
. 50% of the governorate facilities fully modernized	3
. 75% of the governorate facilities fully modernized	4
. Yes, and the governorate keeps comprehensive cost records	5
9. Does governorate utilize income generation, leasing and/or privatization?	
. No	0
. No, but they plan to	1
. Yes, in 10% of facilities	2
. Yes, in 20% of facilities	3
. Yes, in 30% of facilities	4
. Yes, in 40% of facilities	5
10. Does governorate utilize service contracts with dealers?	
. No	0
. No, but they plan to	1
. Yes, with 25% of local dealers	2
. Yes, with 50% of local dealers	3
. Yes, with 75% of local dealers	4
. Yes, with all available dealers	5

Table 3.5 (Continued)

O&M SUSTAINABILITY INDICATORS (Tests)

	Scored Points
11. Are P.M. and repair schedules established and utilized?	
. No	0
. No, but they are planned	1
. Yes, in 25% of the facilities	2
. Yes, in 50% of the facilities	3
. Yes, in 75% of the facilities	4
. Yes, in all facilities	5
12. Are facilities fully staffed?	
. No staff in some facilities	0
. 20% of needs met	1
. 40% of needs met	2
. 60% of needs met	3
. 80% of needs met	4
. Yes	5
13. Do workshops have full complement of tools, furniture and Equipment?	
. None in some facilities	0
. 20% of needs met	1
. 40% of needs met	2
. 60% of needs met	3
. 80% of needs met	4
. Yes	5
14. Is there a maintenance schedule for sub-projects and is it followed?	
. No	0
. No, but one is planned	1
. 25% of needs met	2
. 50% of needs met	3
. 75% of needs met	4
. Fully planned and functional	5

Table 3.6

GARAGE AND WORKSHOP CONSTRUCTION AND RENOVATION PROJECT
PHASE II

ZONE	DISTRICT	PROPOSED SITE	COST ESTIMATE L.E. 000	REMARKS
CAIRO				
. North	Rod El-Farag Shoubra El-Sahel El-Zeitoun	El-Zawia El-Zawia New site El-Zawia	550 550 1350 550	Renovat. of current site in Zawia Renovat. of current site in Zawia New site Renovat. of current site in Zawia
. South	Helwan El-Tebbeen Zonal Workshop	New site	1350	Site is assigned
. Central Vehicle Workshop		El-Zawia	850	Governor of Cairo approved a LM project to transfer these facilities to new sites at the out- skirts of Cairo
. Central Equip. Workshop	CCBA	New site	1500	
. Central Garage		El-Zawia	700	
Total Cairo			8050	
GIZA (GCBA)				
. GCBA	GCBA Garage # 3 (South of El-Haram Street)	New site	1500	To serve the southern part of Giza City
SHOUBRA KHEIMA (QAL.)				
. West District	West District	New site	1350	
ALEXANDRIA				
. Central	Central garage and workshop	Renovation	2000	The relocation of this facility is considered by governorate.
. Road Directorate	Road equip. garage	Renovation	450	Renovation of the current East District garage when the new Semouha garage is completed
SUEZ				
Suez	Suez district	Renovation	500	Suez district garage is small. A ne park is needed. Site not yet assign

Source: Wilbur Smith Associates Records

Table 3.7

RECOMMENDED ANNUAL LEVELS OF FUNDING FOR O&M

I T E M	(L.E. 000)					
	CAIRO	GIZA	QALIUBIA	ALEXANDRIA	PORT SAID	SUEZ
. Procurement of imported spare parts for the USA made vehicles and equipment (most of the fleet)	3,300	1,320	1,000	1,650	1,600	> > > 1,100
. Purchase of local spare parts (batteries, tyres, filters, hoods, hoses, lights, etc.)	3,700	1,250	150	1,500	300	> > >
. Preventative maintenance and repair materials (lubricants, paints, steel sections, leather, metal sheets, etc.)	500	300	150	350	300	200
. Overhaul of accumulated defective vehicles (1/3 of total per year for 3 years)	3,200	2,000	835	2,333	600	350
. Overhauls of newly defective vehicles and equipment	5,000	2,130	850	2,500	1,100	700
TOTALS	15,700	7,000	2,985	8,333	3,900	2,350

Source: WSA update from Interim Reports; Feb. 1992

3.4.4 Replacement of Aging Fleet

The majority of the garbage collection and service fleets were procured through the Commodity Import Program and Decentralization Support Fund Projects in the early eighties (governorates received these fleets between 1982 and 1986). As the average life span of the vehicles and equipment of these fleets is less than 10 years, governorates urgently need to implement a comprehensive replacement plan. Vehicles and equipment purchased from LD II Urban funds from the USA and local markets are shown in Table 3.8.

The cost of recommended replacement is given in Table 3.7.

3.4.5 Need For Further USAID Support

LD II Urban laid the foundation for a sustainable O&M system in all urban governorates. However, there is still a need for further technical assistance to:

- Enhance the income generation and leasing processes;
- Implement the Phase II construction plans;
- Implement the five-year fleet replacement plans (Table 3.9);
- Support procurement of badly needed spare parts and the repair of accumulated defective Commodity Import Program and Decentralization Support Fund vehicles and equipment.

Table 3.8

VEHICLE AND EQUIPMENT PROCUREMENTS
THROUGH LD II URBAN ALLOCATIONS

VEHICLE/EQUIPMENT	GOVERNORATE	NO. OF PIECES PURCHASED		TOTALS
		LOCAL	IMPORTED	
Refuse Trucks Ford 350	Alexandria	-	18	18
	Qaliubia	-	1	1
	Port Said	-	1	1
	Suez	-	3	3
Loaders	Cairo	-	11	11
	Alexandria	-	12	12
	Port Said	-	-	-
Cesspit Trucks	Cairo	-	2	2
	Qaliubia	-	4	4
	Port Said	2	-	2
Dump Trucks	Cairo	1	11	12
	Qaliubia	4	2	6
	Port Said	-	1	1
Landfill Compactors (Trashmaster 3-80)	Alexandria	-	3	3
Fork Lift (Cat.)	Cairo	1	-	1
	Qaliubia	1	-	1
Vibrator Roller	Cairo	1	-	1
Lighting Tower	Qaliubia	1	-	1
Agricultural Tractor	Suez	6	-	6
TOTAL		17	69	86

Table 3.9

**COST OF RECOMMENDED REPLACEMENT
(To Replace 50% of the Fleets)**

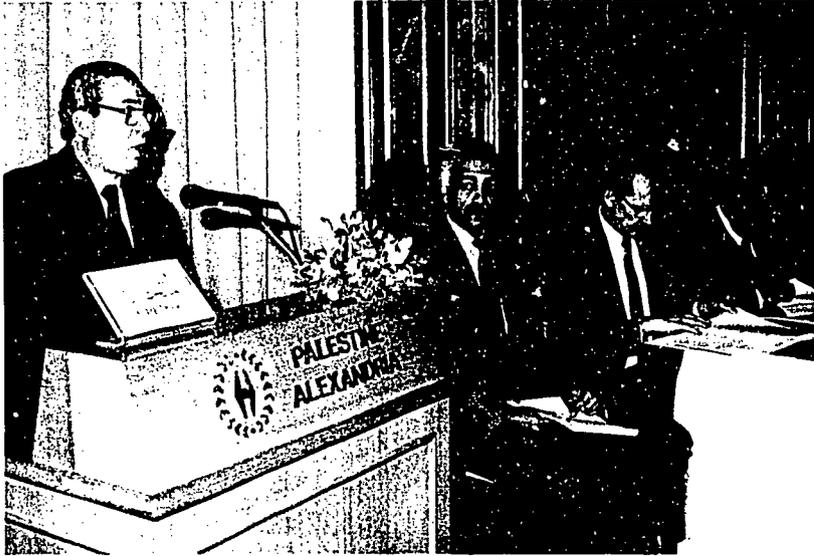
Governorate	PROPOSED ALLOCATION X L.E. 1,000				
	1992	1993	1994	1995	1996
Cairo	12,000	12,000	12,000	10,000	10,000
Giza	10,000	10,000	10,000	8,000	8,000
Qaliubia (Shoubra El Kheima)	5,000	5,000	5,000	4,000	4,000
Alexandria	6,000	6,000	6,000	6,000	5,000
Suez	2,000	2,000	2,000	1,500	1,500
Port Said	4,000	4,000	3,500	3,500	3,000
Total	39,000	39,000	38,500	33,000	31,500

Note:

Financial resources for this replacement plan could be:

- USAID block grant
- GOE BAB III
- Services treasury
- Cleaning treasury

Source: Wilbur Smith Associates



**GOVERNORS CONFERENCE - SOLID WASTE MANAGEMENT -
ALEXANDRIA**



COMPOST PLANT OPERATION - GIZA GOVERNORATE



SOLID WASTE COLLECTION EFFORTS

**GREATER CAIRO URBAN AREA
(USAID - FUNDED EQUIPMENT)**



Section 4

SOLID WASTE MANAGEMENT (SWM)

4. SOLID WASTE MANAGEMENT (SWM)

4.1 TARGETS AND RESULTS

The original tasks of the Solid Waste Management (SWM) component were defined in the LD II Urban Inception Report as:

- o In each governorate develop and implement operational procedures for collection and disposal of solid waste.
- o In each governorate develop a draft master plan for evaluating, prioritizing and implementing appropriate alternatives.

Based on the above, it was determined that additional more specific tasks should be undertaken:

- o Make detailed investigation and system design for the central business district and one additional representative area in each governorate.
- o Define performance and productivity measures including:
 - Waste collection practices,
 - Recycling and recovery,
 - Affordability criteria,
 - Financial and economic analysis,
 - Institutional arrangements.
- o Implement the solid waste master plan in two selected pilot areas by:
 - Developing detailed institutional and contractual arrangements, and
 - Preparing systems design complete with tender documents for selected services such as equipment and physical works.

Early LD II Urban Technical Assistance Contractor (TAC) work involved gathering background information and data for the preparation of studies and reports containing analyses and results to assist in further work and studies. As a result of the investigations in one of these reports entitled the Diagnostic Report investigations, the above described tasks were modified to include preparation of five strategy plans, one master plan, six demonstration area plans, feasibility studies for two special projects, and a Port Said Solid Waste Disposal Plan. The tasks also included training of municipal solid waste operators, engineers, and managers; and additional unspecified technical assistance, as required.

4.1.1 Level Of Technical Assistance

Contractor Personmonths

During the four-and-a-half-year period from January 1988 to June 1992, the human resources assigned were 104 professional personmonths.

In the LD II Program Paper (USAID 1985), the efforts of NUS in providing seven plastic bag factories and 207 four-wheel tractor carts in addition to providing solid waste block grants to each district were considered noteworthy achievements. The USAID report went on to state that SWM emphasis in LD II Urban should shift from collection to disposal. However, the TAC work plan was limited to master planning since no financial support for any disposal schemes was included within LD II Urban's budget. Thus, when the strategy and master plan work was finished and no USAID implementation funds were provided, there was no obvious follow-up step for the TAC to furnish preliminary designs for the projected facilities.

Training

Trainees (GOE governorate personnel involved in solid waste management) received a total of 1,753 days of instruction at a cost of LE 44,510.

4.1.2 SWM Task Background

In 1988, the six governorates included in LD II Urban had distinct differences in population, area, terrain, infrastructure and development of basic services. The governorates were also in different phases of developing functioning and effective solid waste management systems. In Cairo and Giza Governorates, the Cleaning and Beautification Authorities (CCBA and GCBA) had overall control of solid waste management systems. In Alexandria Governorate, the Cleaning and Beautification Organization was only responsible for operation of the disposal sites, the composting plant, and emergency clean-up throughout the City. In Qaliubia, Port Said and Suez Governorates, solid waste collection and disposal was largely left to the districts. Various previous studies were available that were applicable to one or more of the governorates. Some parts of these earlier studies have been implemented.

- 4.1.2.1 Cairo and Giza Governorates: Cairo and Giza Cleaning and Beautification Authorities were created by Presidential Decree in 1983. These authorities had wide powers and were designed to bring all municipal solid waste collection and disposal activities under the supervision of one central agency. They regulated and controlled private as well as public sector service providers. In Cairo, the Zabaleen, traditional private sector service providers, collected much of the household and some commercial solid waste. The Zabaleen were administrated by one or more contractors termed Wahis. The contractors and Zabbaleen worked under contract with the City Councils.
- 4.1.2.2 Alexandria Governorate: The Cleaning and Beautification Organization in Alexandria had no overall authority or responsibilities. Ultimate control of municipal solid waste management was vested in the City Council. From the Council the line of authority flowed downward through other city officials and various municipal departments. Municipal authorities were responsible for street cleaning, municipal refuse containers, municipal dump sites and one composting plant. However, because of short-falls in household waste collection service, many inhabitants dumped their waste onto city streets or into municipal containers or on temporary dump sites. This unsightly practice had the double consequence of significantly lowering the level of cleanliness in the City and of placing a heavy burden on the municipal cleaning forces.
- 4.1.2.3 Port Said Governorate: Port Said had a very high population density. It was primarily a commercial center due to its free zone status. Private sector cleaning contractors operated in the higher income areas. The contracts were awarded on a tender basis and the contractors paid the Governorate for the right to collect and dispose of or sell

the garbage. The use of the service by the householder was not compulsory. The Governorate set the fee for the service. Collection of the garbage from ships was undertaken by contractors chosen by the various shipping agencies.

The Governor represented the central authority. The City was divided into districts, each with its own local Popular Council. The District Chief was, and still is, responsible for daily solid waste operations.

4.1.2.4 Qaliubia Governorate (Shoubra El Kheima City): Shoubra El Kheima City, which is within Qaliubia Governorate, had a high concentration of industry and the majority of the residents were factory workers. There were no Zabaleen operating in the City and there was a great deficiency in modern refuse collection, disposal vehicles and equipment. Householders in the low income areas (which are a major portion of the City) dumped their solid wastes in the street or in branches of the Nile River. There was no overall authority for solid waste management in the governorate or in the city. The two districts of Shoubra El Kheima city were responsible for collection and disposal of solid waste. There were some private sector waste collection contractors operating in the City on an informal basis (not authorized or licensed by the authorities). Things have not changed much since 1988.

4.1.2.5 Suez Governorate: Suez was divided into five districts. The District Chiefs were responsible for daily solid waste operations through their Engineering Departments. There was a large deficit between the districts' capacity to collect solid waste and the quantity of solid waste actually generated. There was a small private sector element involved in collection but for the most part householders dumped the waste in the streets or in open areas where it remained for extended periods of time. The Governorate had no official dump site and as a result the districts dumped the refuse in open areas or unofficial dump sites outside the City.

Funding: Funding for municipal solid waste management systems was usually derived from both local and central government sources. There was a cleansing tax of 2% of the value of rental properties that was used to support sanitation activities. The central government contributed funds for salaries, operating costs and purchase of equipment. This situation has not changed since 1988.

4.1.3 Summary of the 1988 Situation

4.1.3.1 Refuse Collection: Except for Ganain District in Suez Governorate, there was a refuse collection system operating in all other urban governorate districts. The systems and equipment varied greatly - from mule and donkey carts to modern compaction truck equipment. Mechanized equipment was of various age and manufacture, with a large portion being of American origin, furnished under the USAID Commodity Import (CIP) and Decentralization Support Fund (DSF) programs. Table 4.1 lists the mechanized refuse collection equipment in use in 1988 in the urban governorates.

Table 4.1

**Cleaning Vehicles & Equipment
Inventory and Status in 1988**

Governorate	Vehicles			Equipment		
	In Operat.	Need Repair	Total	In Operat.	Need Repair	Total
Cairo	414	420	834	20	16	36
Giza	231	121	352	14	12	26
Qaliubia	25	7	32	7	4	11
Alexandria	107	140	247	28	39	67
Suez	28	18	46	25	15	40
Port Said	77	35	112	10	18	28

Source: Wilbur Smith Associates

While Cairo and Giza Governorates had Cleaning and Beautification Authorities to provide overall supervision of refuse collection, they differed in that Cairo's Districts had the collection responsibility, and collection equipment was assigned to District Garages. In Giza, collection was the direct responsibility of the Authority. In Alexandria the Cleaning and Beautification Organization had responsibility and authority for operation of disposal facilities and emergency clean-up as requested by the districts or directed by Governorate authorities. The regular collection of garbage in Alexandria was the responsibility of the districts and collection equipment was located in District Garages. In Port Said, Suez and Shoubra El Kheima (Qaliubia) governorates, collection of solid waste was the responsibility of the districts.

- 4.1.3.2 Refuse Disposal: It was the conclusion of various SWM studies conducted prior to 1988 that the preferred method of waste disposal was composting. Composting was selected because of the need for large quantities of compost material in reclaiming desert lands and for the resulting improvement in the fertility and water retention properties of existing agricultural lands. In the composting process, many recyclable materials can be readily reclaimed from the waste streams.

There were composting plants operating in Cairo, Giza and Alexandria Governorates, but these plants processed only a small portion of the solid waste generated. Staff needed additional training in the operations and maintenance of the plants. Landfill disposal practiced in these governorates could be basically classified as open dumping. In Alexandria and Port Said Governorates, the solid waste was being used to fill and reclaim low areas and abandoned canals. From experiences in other countries, it was anticipated that such landfill practices in Egypt would soon create major adverse environmental impacts. No new compost plants have been constructed in Egypt since 1988.

- 4.1.3.3 The Magnitude of the SWM Problem: The collection, treatment and disposal of solid waste in urban Egypt was complicated by rapid population growth in the urban areas (migration and natural increase). In 1947, the total number of people living in Egypt's urban areas was about six million. By 1986, this number had increased to about 21 million. The average annual growth rate between 1976 and 1986 was 2.9%.

According to the 1986 census, nearly 55 percent of the country's total urban population lived in two of the world's oldest cities, namely Greater Cairo and Alexandria. The Capital alone had a population of nearly nine million, in what is termed Greater Cairo (Cairo, urban Giza and Shoubra El Kheima). Using the assumption that the urban population will continue to increase by the same annual growth rate, urban population will reach about 31 million by 2000 (see Table 4.2 below) and solid waste management problems, which are connected with rapid population growth, will in the future become more pressing. As the population grows, the demand for housing and hence for the collection, treatment and disposal of solid waste will also increase.

Table 4.2

**POPULATION FORECASTS FOR THE SIX GOVERNORATES TO YEAR 2000
(In Thousands)**

Governorate/ City	*	**	**	**
	1986 Census	1990	1995	2000
Cairo	6,053	6,501	7,107	7,770
Giza City	1,871	2,214	2,733	3,373
Shoubra El Kheima City	711	838	1,030	1,265
Total Greater Cairo	8,635	9,103	10,870	12,408
Alexandria	2,917	3,195	3,579	4,010
Suez	327	403	525	682
Port Said	400	473	584	721
Grand Total	12,279	13,174	15,558	17,821

Source: * CAPMAS

** Calculated projections by TAC Staff

To put the problem in perspective, over the life of LD II Urban, daily generated amounts of solid waste in the six urban governorates increased by approximately 3500 metric tons. As the following sections show, some progress was made in selected areas; particularly with respect to providing an analytical base for comprehensively attacking the problem. Perhaps the greatest contribution of LD II Urban to the solid waste management sector was the operation and maintenance aspect which greatly increased the on-the-road availability of SWM collection and disposal vehicles.

4.1.4 Plans And Studies

As outlined earlier, solid waste collection and disposal in the major cities of Egypt is a mammoth task. Vast resources of men, mechanical equipment, and trucks are used to pick up

and remove the thousands of metric tons of garbage, refuse, construction debris, commercial/industrial wastes, and street sweepings which otherwise would fill the cities and render them unusable. In an undertaking which utilizes such huge resources, city officials, if they are to be cost effective managers, must have an accurate idea of the magnitude and scope of the problem facing them and must be able to develop a plan to get the work done. The SWM Team in LD II Urban contributed to the cost effectiveness of the solid waste work of the six urban governorates by developing a number of analytical studies which included master plans, strategy plans, demonstration area plans, a disposal plan for Port Said and several feasibility studies for special projects.

4.1.4.1 Master Plans: These reports were more detailed than strategy plans. They included a public opinion survey on desired level of service and they presented a collection route study to optimize the use of the collection trucks. The LD II Urban Work Plan called for one master plan to be prepared for the Governorate of Suez. This choice proved to be the right one since two new Suez Governors have, over the past three years, adopted this master plan as a model for development of new collection procedures, a new landfill and a central cleaning department.

4.1.4.2 Strategy Plans: These detailed reports used population data and projections plus average figures for per-capita waste generation to determine the number of metric tons of waste generated each day for the year under study and for the future. The strategy plans analyzed existing collection equipment and estimated how much new equipment was needed to serve the growing populations. Finally, the strategy plans estimated the overall costs of needed equipment and facilities such as landfills, composting plants and trucks. Strategy plans were prepared for the following governorates:

- Alexandria
- Port Said
- Shoubra El-Kheima (Qaliubia)
- Giza
- Cairo

4.1.4.3 Demonstration Area Plans: Somewhat different from the strategy plans, they focused on the desires of the public and, by use of a survey of a sample of population within a designated area, determined what level of solid waste service was required and how much the residents surveyed were willing to pay. Cost estimates were developed for the needed equipment. Demonstration area plans were conducted in the following districts:

- Old Giza, Giza
- Mounira East, Giza
- Shoubra El-Kheima (three areas), Qaliubia

Alexandria requested special funds to conduct their own demonstration area plan but later decided that it was not needed. They are still holding the \$ 30,000 USAID Study Grant.

4.1.4.4 Disposal Plan For Port Said: The Governorate of Port Said had a more serious solid waste disposal problem than any other urban center in Egypt. The reason for this was that Port Said had no composting plants or incinerators to reduce the volume of the waste which had to be landfilled. In addition, because the urban area was essentially a small island surrounded by open water and wetlands, there was little space available

for landfills. Moreover, because of its duty-free status, any waste conveyed off this small island first had to be carefully checked by Customs.

During the period from 1977 to the end of 1992, municipal solid waste from Port Said was dumped in canals linked to Lake Manzala. These became the only disposal sites in use on the West Bank. During this period, the SWM Team prepared a disposal plan which identified areas in the Sinai as possible future landfill sites for the Governorate.

4.1.4.5 Special Project Feasibility Studies: These studies addressed a number of critical deficiencies in existing systems.

- Feasibility Study and Preliminary Design of Transfer Station in Giza. A transfer station provides for an economical use of refuse trucks and drivers. This is based on the concept that large numbers of small, short-haul collection trucks do not have to repeatedly make long hauls out to a distant landfill if they are able to offload their refuse into larger trucks in transfer stations within the city. Only the larger trucks then have to make the long trip out to the dump. USAID provided a grant of LE 426,500 plus \$ 21,000 to build the transfer station.
- Feasibility Study and Preliminary Design of Transfer Station and Sanitary Landfill in Shoubra El Kheima (Qaliubia). This was never funded by USAID after the Qaliubia Governorate officials began to waiver on their actual needs.
- Feasibility Study and Preliminary Design of Container Repair Facility in Cairo. In the city of Cairo, there were thousands of bins (dumpsters) on the streets. Many of them have the bottoms rotted out or the handles broken or twisted so that they could not be mechanically unloaded by the side-loading compactor trucks. The result was that unusable containers remained filled with decaying garbage. In an attempt to resolve this unsatisfactory situation, the SWM Team completed a feasibility study to build a container repair facility within an existing vehicle maintenance garage. This special project was to be equipped with a number of small trucks with mounted cranes so that disabled bins could be picked up and brought in for repair. The study included preliminary design and cost estimates.

4.1.4.6 Technical Assistance and Procurement: Following the completion of the various studies required by the LD II Urban Terms of Reference, the SWM Team provided technical assistance in implementing these plans. Examples of such technical assistance were:

- Preparation of specifications for equipment such as rear and side-loading compactor trucks, front-end loaders, compactor dozers and tractor/trailer combinations.
- A follow-up study, with an ad-hoc committee of governorate officials, to review the significant solid waste disposal problems in Alexandria. The Governorate Secretary General, acknowledging that a new disposal site must be located and developed (the existing Abbis dump was grossly overloaded), requested the SWM Team to act as technical advisors to the committee. Several field visits were paid to existing disposal sites in Alexandria and

reports were furnished to the committee. When this committee was dissolved, due to transfers of both of the principal officers, the momentum was lost and the governorate did not reconvene the committee.

- A number of management as well as technical topics were addressed by the SWM Team on behalf of the governorate solid waste authorities. These are described in Section 4.1.5.
- Aside from some LE 400,000 of shelf-item (available for purchase within Egypt) procurement of tractors by Suez Governorate, the major SWM expenditures funded by the Investment Plans were for equipment procured in the U.S. Table 4.3 shows SWM equipment purchased through overseas procurement via the Investment Plans.

Table 4.3

SWM OVERSEAS (USA) PROCUREMENT
Fiscal Years 1987 to 1991

VEHICLE/EQUIPMENT	QTY	CAIRO	QAL	PS	ALEX	SUEZ	REMARKS
Dump Truck	14	11	2	1			- Delivered
Landfill Compactor Dozer	3				3		- Delivered
Loader	23	11			12		- Delivered
Compaction Truck	23		1	1	18	3	- Delivered

- It can be seen that the bulk (73% of the number of units) of this overseas equipment was ordered by Cairo and Alexandria.

- There were two SWM special projects funded by LD II Urban:
 - Cairo Governorate Container Repair LE 1,210,906
 - Giza Governorate Solid Waste Transfer Station LE 369,098 plus \$ 27,837
- The solid waste component indirectly received additional financial support as LD II Urban expended over LE 24 million for construction and upgrading of garages. The purpose of these garages was to support the Government of Egypt's fleet of vehicles, most of which were occupied in the solid waste (including street cleaning) sector.

4.1.5 Results

Any overall evaluation of the effectiveness of the Solid Waste Management component of LD II Urban must recognize that one major obstacle blocked the path to any noteworthy success. The Egyptian government authorities have had their fill of SWM studies, and a number of previous studies (e.g. the comprehensive Japanese SWM Plan for Alexandria) lie abandoned,

gathering dust in government offices. Any SWM initiative featuring more studies, but no funding to carry out the required tasks, meets with apathy and little real cooperation.

It is true that these initial studies were not viewed, in many of the governorates, as having much value because most of the shortcomings (e.g., lack of operational collection vehicles), could not be resolved by USAID grants. When all of the major studies (contractual requirements) were completed, it was determined that, during the remaining months of LD II Urban, the SWM Team would work on any small areas of technical assistance specifically requested by the Government of Egypt. The SWM Team then met with USAID and developed an operational plan which focused on Alexandria, Port Said and Suez. The concept of the plan was to uncover certain niches in which the officials of these three cities had indicated that they needed some technical assistance. The Team, with its limited human resources, then worked to provide the desired technical assistance. Examples of this effort are given below:

4.1.5.1 Detailed Analysis of Existing Windrow Composting Plant in Alexandria: It was observed that while composting provides one of the most beneficial forms of solid waste disposal, it tended to be uneconomical in Egypt as the basic cost of the imported plant and machinery were beyond the means of most governorates.

Identification of major parts (not covered by patents) which could be manufactured locally, was therefore deemed to be a priority. The SWM Team worked with a large public sector manufacturer in Alexandria and established that it was in fact economically viable to fabricate these units. Egyptian firms can provide reliable parts such as conveyors with motors, pumps for hydrolyzing the organic material, and mechanical windrowing assemblies. These could be used either for spare parts for repair or be incorporated into new plants. If funds are made available to implement this scheme, large scale savings of hard currency should result.

4.1.5.2 Follow-up Analysis, Study and Preliminary Design of the Multi-Purpose Transfer Station Required to Support the Proposed Co-Composting Plant at Port Said: The transfer station which is one element in a larger USAID project for co-composting waste in Port Said, comes under the jurisdiction of the governorate Solid Waste Department. The governorate therefore requested technical assistance to prepare the preliminary design for this facility which will house picking, recycling, storage, and loading/off-loading activities. Its operation must precede the flow of organic material to the co-composting plant which is to be sited at the sewage treatment plant. As the Port Said Governorate is responsible for funding and operating this transfer station, it is important for both USAID and governorate officials to understand what specific functions should be carried out within this facility. Moreover, there is a serious problem with Customs at Port Said, and a solution is needed to minimize the number of times that the refuse (including organics, recyclables, and bypass/reject material) is hauled back and forth through the Customs check point. In order to deal with all of these tasks, a brief report was developed:

- a. Showing a material mass balance for the design year, mid-1996. The projected waste stream was broken out into organics, recyclables and bypass/rejects;
- b. Identifying requirements for several storage, loading and unloading areas within the Transfer Station. Approximate sizes of each area were provided;

- c. Furnishing the number of required vehicles including tractor-trailer combinations, dump trucks, and front-end loaders;
- d. Illustrating that the Transfer Station can best function if it is co-located with a Customs Office.

4.1.6 Training In Support Of SWM

The SWM component of the LD II Urban provided limited training in classrooms but was successful in furnishing training via meetings of the Solid Waste Sub-Committee (made up of the highest ranking officials involved in SWM in all 6 governorates) and through the Solid Waste Management Conference in Alexandria.

4.1.6.1 Classroom Training: Early in 1989, a need for six basic solid waste training courses was identified:

- Solid Waste Orientation Seminar

For senior officers such as district chiefs, Cleaning and Beautification Authority officials and chiefs of local Popular Councils. Duration two days. Topics included methods of collection with discussions of frequency of pickup, types of equipment, and uses of transfer stations; overviews of types of disposal with relative costs; and techniques for cost recovery.

- Solid Waste Operations: Management

For district solid waste supervisors, deputy chiefs of Cleaning and Beautification Authorities and other senior operating officials. Duration 8 to 10 days. Instruction on laws governing solid wastes in Egypt, solid waste types and quantities, alternative solid waste methods with comparative costs, role of the private sector, maintenance requirements for equipment, and budgeting for personnel and equipment.

- Solid Waste Operations: Field

For area and neighborhood officials supervising collection crews. Duration three days. Topics included the respective roles of the Zabbaleen, the government solid waste workers, and the personnel of firms with collection contracts; alternative neighborhood collection methods; and various types of equipment.

- Management of Sanitary Landfills

For landfill/dump supervisors. This three-day course was meant to promote the use of sanitary landfills as a disposal method and to detail operational procedures for sanitary landfills.

- Composting Plants: Technicians

For technicians assigned to or responsible for composting plants. This two-day course was designed to improve understanding of plant operations and to teach preventive maintenance schedules for all plant equipment.

- Composting Plants: Engineers

For electrical/mechanical engineers working at or responsible for composting plants. This course was designed to give complete technical details of operating and maintaining plants.

- Only two of these courses were offered - Solid Waste Operations: Management and Solid Waste Operations: Field. Efforts continued until the spring of 1992 to find competent instructors for the remainder of the courses but these could not be located within Egypt. Limitations of funding negated the chance to (i) bring experts from the USA to teach the course or (ii) to take the participants to the USA.

4.1.6.2 SWM Conference, Alexandria: On March 6 and 7, 1991, the SWM component of LD II Urban hosted a successful, high-level (senior governorate officials) conference in Alexandria.

- o The importance of this technical conference was reflected by senior GOE official participation, the widespread publicity, and the new recognition by the Egyptians involved in government that solid waste management had evolved into a science requiring managers with backgrounds in finance, engineering, and preservation of the environment.

- This was the first national-level SWM conference involving the six major urban areas in the country.
- All six urban governors were in attendance and participated actively.
- The conference received extensive TV coverage and the El-Ahram newspaper published a long article quoting extensively from the speeches of the governors.
- Each governor presented a paper outlining the SWM methods practiced within his urban area. These papers discussed private sector involvement in the collection of wastes, operational costs, environmental hazards, and need for equipment (e.g., compactor trucks, composting plants, and landfill dozers). At the end of the Conference a number of recommendations were prepared and these were generally in line with the aims of the technical assistance provided by the Technical Assistance Contractor. Some of these recommendations have been implemented, such as the new SWM organization at the Governorate level in Suez.

4.2 IMPACTS

4.2.1 Organization/Management

Despite the lack of a complete training program and the shortage of SWM Team staff human resources dedicated to the SWM component of LD II Urban, tangible results can be observed in greater private sector involvement in collection, cleaner streets, and more environmentally acceptable practices in the landfills. The environmentally acceptable practices in the landfills is discussed in Section 4.3.

- Private Sector Involvement In Collection

In 1989, Care Services, a large, modern Egyptian firm, signed a refuse collection contract in Cairo with CCBA, based on affordable fees for services. When this innovation proved successful, more contracts were signed and by March of 1990, the (then) Governor, Dr. Mahmoud Sherif, stated that over 50 separate refuse collection contracts had been awarded and over 70% of Cairo was being served by these private sector contractors. Giza was also very successful with private sector trash collectors and the other governorates are following suit. Traditional donkey-drawn Zabaleen carts were banned from Greater Cairo and this valuable recycling group are systematically mechanizing their operations.

- Cleaner Streets

Long term residents of urban Egypt are noticing general improvements in cleanliness of the streets. Increasing environmental and public health concerns probably deserve most of the praise for the improved appearance of the streets in Greater Cairo. The SWM Team has also contributed by raising the awareness, among the Government of Egypt officials, of the value of an adequate solid waste collection and disposal system. In Alexandria, even after the series of USAID special grants ended, the City continued to hire Care Services to clean the beach and the Corniche during the high season. This means that higher environmental standards are being adopted by Alexandria Governorate officials.

4.2.2 Guidelines For The Introduction Of Central Cleaning Authorities In Port Said And Suez

Port Said - Informal surveys were conducted with all district chiefs and their senior SWM officials to ascertain the benefits which would occur from installing a central cleaning authority in Port Said. None of these officials were in favor of any central authority as they stated that they preferred to have direct control of any cleanup work. The Technical Assistance Contractor noted, however, that the disposal operation in a single landfill (or at a single transfer station) mandates that control be vested in a single agency as opposed to each district running their own disposal operation.

Suez - Some tangible success was achieved in the technical assistance visits to the new Central Cleaning Authority. The recently assigned Director, followed the practice of his predecessor and came to rely on the Technical Assistance Contractor for managerial as well as technical guidance for the new agency. There were a number of areas in which technical assistance was provided including evaluation of alternative sites for a new landfill, the presentation of the need for a transfer station, and the fostering of a spirit of cooperation between the districts and the Authority.

4.3 INSTITUTIONALIZATION

Institutionalization of solid waste management elements, as defined for the purposes of LD II Urban, are modest at best. It is not necessarily a question of success or failure, but one of applying very limited resources to a problem of massive dimensions. This point is expanded upon in the recommendations Section 4.4. In this respect, comments concerning institutionalization are made in the context of the total urban decentralization efforts (1982-1992) - as most gains have been of an evolutionary nature throughout this period.

- o Refuse Collection Systems - USAID's solid waste management efforts have resulted in three basic changes in collection practices in urban Egypt. The first was the introduction of the use of plastic bags for garbage collection which is now common practice. This was not the case when NUS started. Gains were achieved through the funding of modest plastic bag factories, pilot clean-up campaigns in the districts, the involvement of Private Voluntary Organizations (PVOs) in the collection process and the provision of public forums for GOE officials to discuss solid waste management problems with the public.

The second change was the general elimination of non-motorized vehicles in the collection process. A number of organizations were involved in this process, in addition to USAID, but constant LD II Urban encouragement of private sector involvement in solid waste management led to the recognition that traditional Zabaleen collection practices could not compete with modern contractor methods.

The above-mentioned growth of the private sector in the collection process was the third major change. Both the World Bank and USAID were consistent proponents of privatization over the last decade. This message was constantly relayed in LD II Urban TAC efforts. The private sector is now playing a significant role in most of the urban governorates. This involvement is a trend which should continue to grow and hopefully expand into the disposal area.

- o Solid Waste Transfer Systems - Defined as the intermediary process of solid waste processing between neighborhood collection and final disposal, this aspect of LD II Urban SWM efforts has seen virtually no change. The one pilot project in Giza is not yet operational due to political problems, so no impact can be evaluated.
- o Solid Waste Disposal Systems - Some gains were made in this area. The first true sanitary landfill was established and operated in the El Gabal El Akhdar area of Cairo Governorate. All urban governorates received instruction in sanitary landfill design and operation. Some are developing new sites to apply these procedures. However, for the most part, solid waste disposal continues in the same locations as always - dumps, not landfills.
- o Organization And Administration - Over the life of LD II Urban, existing Cleaning Authorities have strengthened their staffs, some positive re-organizations have occurred and new organizations have come into being (i.e., Suez, Alexandria). Governors are also putting more pressure on these organizations to perform, but overall the results in this area are disappointing.

4.4 RECOMMENDATIONS

In terms of successful USAID (or other donor) involvement in solid waste management, this public service sector must be treated in a manner similar to the water and wastewater sectors. As with water and wastewater upgrading and development, solid waste management in urban Egypt is a huge undertaking. Partial involvement, such as has occurred in LD II Urban, is not the answer. Partial involvement raises expectations and creates extreme frustration on the part of the recipient when obviously needed solutions cannot be funded.

Solid waste management improvement in Egypt is certainly a much needed effort. It directly addresses major environmental and public health concerns and the impacts of solid waste management improvements are certainly more visible and obvious to citizens, visitors and casual observers than water and wastewater efforts could ever be. It is recognized that USAID cannot support all public service improvement efforts in Egypt, but if the Agency cannot involve itself in this sector, it could try to interest other donors in this cause.



THE PRIME MINISTER OPENING THE PORT SAID MIS CENTER



QALIUBEYA GOVERNORATE MIS CENTER



MIS TRAINING - PORT SAID (ABOVE) AND CAIRO (BELOW)



Section 5

MANAGEMENT INFORMATION SYSTEM (MIS)

5. MANAGEMENT INFORMATION SYSTEMS (MIS)

5.1 TARGETS AND RESULTS

The Management Information Systems (MIS) technical assistance component of LD II Urban had two primary tasks: 1) to provide automation for the LD II Urban office including components, and 2) to develop the MIS Centers in the six urban governorates into independent units capable of supporting the information requirements of their respective governorates. Both tasks were substantially met.

The basic strategic focus of MIS was on the development and institutionalization of an information processing center (MIS Center) in each governorate. Formal training was applied to develop the skills of newly appointed staff within the new MIS Centers. Computer equipment and office supplies were provided for their use. Two needs assessment studies were conducted in Giza and Port Said governorates to determine the kind of automation services that were required by a typical governorate. Five-year automation plans were written to provide guidance to the new MIS Centers. Each Center completed a pilot system development project with the close supervision and assistance of the MIS Team staff. These pilot projects allowed the MIS Center staff to apply the skills and techniques they had learned during formal course work. Following the pilot systems, governorate MIS Centers began development of their own systems in keeping with their five-year plans. Overall, this strategy was very successful. MIS Centers were created and institutionalized in all six urban governorates. Pilot systems were completed in each governorate and later shared among the governorates. Many additional systems have been developed by the governorates according to their five-year plans and special requests from the governors.

Technical assistance strategy focused upon the development of applications critical to the success of the new GOE MIS Centers and other Technical Assistance Teams. Computer equipment was purchased for the LD II Urban office and for the GOE offices working with each Technical Assistance Team (e.g. Planning and Follow-up, LMU, OMED, O&M and Training centers). Software for these systems was developed and implemented in the appropriate GOE offices. Training and on-site technical assistance were provided for governorate system operators. Overall, this strategy was extremely successful and resulted in the development of 12 unique MIS systems which were implemented at 33 sites throughout Egypt.

Toward the end of the LD II Urban's contract period, USAID requested that the MIS Technical Assistance Team work closely with the Ministry of Local Administration (MLA) to improve the capacity of its information center. USAID also requested a concentration of additional effort on the development of systems for local resource mobilization. Both of these additional objectives were addressed within the limits of available resources. Efforts in these areas were moderately successful as some improvement in the MIS capacity of the MLA was clearly demonstrated and some systems promoting the mobilization of local resources were implemented. However, there still remains much work to be done in these areas.

5.1.1 Level of Technical Assistance

To accomplish the tasks of the MIS component, eight system analysts were hired locally. Five of these analysts were assigned to provide automation support to the LD II Urban office, as well as to the individual components such as OMED, BSDS, O&M, Land Management, and

Training. The remaining three analysts concentrated on the development of MIS Centers in the six urban governorates.

Contractor Personmonths - A total of 398 professional and 35 non-professional personmonths were expended on LD II Urban.

Training Costs - Approximately 90 trainees received a total of 4,800 days of instruction at a cost of LE 210,790.

5.1.2 **Automation Support for Basic Services Delivery System (BSDS)**

LD II Urban's project tracking system was developed to provide an automated mechanism to monitor the financial progress and construction status of its annual Investment and Maintenance Plans. The system provided an Arabic data entry and reporting capability for use in the field. The project tracking system, written in DBASE III Plus, contained both financial and engineering data on both NUS projects and the LD II Urban projects. The Arabized LD II Urban project tracking system was first installed in Giza governorate in July 1988. New procedures were developed and explained to governorate and district personnel responsible for monitoring LD II Urban projects.

The primary task of LD II Urban's project tracking system installation was to automate existing procedures for tracking (or following) construction implementation and expenditures for the LD II Urban Investment and Maintenance Plan projects. The system was successful in accomplishing the following:

- 1) Standardize data flow procedures from the district to the governorate to the Technical Assistance Contractor (TAC) and USAID;
- 2) Establish firm data submission deadlines;
- 3) Develop consolidated data entry forms uniform throughout the governorates;
- 4) Install and run the automated project tracking system with a sustainable degree of independence in each governorate.

Additionally, the installation was intended to bring the governorate Planning and Follow-up staff together with counterparts at the district level while integrating the new computer system into daily activities of the BSDS Technical Assistance Team. The project tracking system now monitors the progress of thousands of USAID infrastructural projects funded through LD II Urban. The system provides a variety of financial status and engineering reports for GOE, USAID, and LD II Urban. It currently runs in the Planning and Follow-up Departments of each urban governorate. Intel 80386 class microcomputers were installed to support the project tracking system and other systems for BSDS.

Two additional systems were developed to support the BSDS Technical Assistance Team. The first, BSDS project rating system was developed to assist with the assessment of project quality and status. This system utilized rating sheets which were used on-site by engineers to assess the LD II Urban projects. These data were entered into the computer system which was then able to give comprehensive reports for the governorates and USAID. This system was first

used in the LD II Urban office and later implemented in the Planning and Follow-up Departments of the six governorates.

The second system, the district needs assessment system, was developed to assist district level planners to determine infrastructural needs. These needs were summarized by the system in reports which were used to guide investment planning at the governorates. This system was first developed and utilized in Port Said. After its successful introduction, the system was translated into Arabic and implemented in the Planning and Follow-up Departments of all six urban governorates.

Results: The project tracking system, district needs assessment system, and project rating system were installed in the Planning and Follow up Departments of all six governorates. These systems now actively support the institutionalized efforts of the BSDS Technical Assistance Team.

5.1.3 Automation Support for Office of Management and Economic Development (OMED)

In conjunction with the governorate OMED offices and the OMED Technical Assistance Team, multi-year capital budget and current budget systems were developed. These systems processed items from financial chapters (BAB I,II and III) of the governorate budget to produce a budget request document/report adhering to Ministry of Finance requirements. Through a concerted development effort and use of appropriate software tools, the multi-year capital budget and current budget systems were installed in all six governorates.

The current budget system process was analyzed in detail, final MIS requirements defined, and custom software was developed using the dBASE III Plus programming language and Nafitha Arabic utility. On-site training was conducted for personnel in the MIS Centers of each governorate. The system was installed in all governorates by November, 1988 to meet deadlines for the 1989/90 budget cycle. The current budget system addressed only the existing manual processes. The structure and flow of data were documented to permit enhancement as user sophistication evolved. Procedures were established and/or changed and new input forms modified or developed. Existing reports in the manual system were analyzed and changes made where appropriate. New reports may be created as needed. The developed system takes into consideration other systems to which it may interface in addition to legal and user requirements.

The development of an automated five-year capital budget system required greater analytical effort than the current budget system. A study of the manual procedures produced functional flow diagrams. Fundamental changes were implemented to permit basic automation of the capital budget system process.

Two microcomputers were installed in each governorate, and on-site training was administered for each of the multi-year capital budget and current budget systems.

A feasibility study for development of a budget monitoring application, including a detailed review of present expenditure accounting system procedures and a definition of formal requirements for automation was prepared. The final report on this subject was entitled the Budget Monitoring Feasibility Study. An extensive system analysis effort culminated in the Budget Monitoring System Phase II Report. This report will serve as a procurement document and work plan for development of the actual system by an Egyptian computer services firm.

Results: The current budget system and capital budget system were installed in all six governorate OMED offices. The program budget system was installed in Alexandria and Qaliubia. These systems now actively support the budget development and administration processes in the governorates.

5.1.4 Automation Support for Land Management Unit (LMU)

The MIS Technical Assistance Team assisted the Land Management Unit Technical Assistance Team with the design and development of an automated system for recording basic site information such as land values, tenure, use and service. Procurement and installation of 80386 class microcomputers for each governorate was undertaken in the LMU offices. An information system, entitled Land Management Information System (LMIS) was installed in all six governorates along with spreadsheet, database, and wordprocessing software. In Port Said, a basic system for mapping in the LMU office was implemented. This system included a small plotter and digitizer with Mapinfo software. The system is currently used to support site planning activities.

Results: Systems for the administration of land use upgrading were successfully installed in all governorate LMU offices. An additional rudimentary geographic information system was installed in Port Said and is functioning well.

5.1.5 Automation Support for Operation and Maintenance (O&M)

Special database application software was developed to support the field activities of the Operation and Maintenance (O&M) component of LD II Urban. The Automated Kardex System effectively computerized the Kardex spare parts inventory control system. It provided improvements in reporting spare parts availability and prepared re-order documents. The Vehicle Maintenance System automated the service and repair histories of each vehicle which consequently contributed to improved on-the-road availability. Both systems were installed in the three O&M pilot sites: Sayed Nafissa Garage in Cairo Governorate, the Central Garage in Alexandria Governorate and the Desert Road Garage in Giza Governorate.

Results: Three O&M facilities have now been successfully automated. These sites are thorough testing grounds for the new systems which can later be implemented throughout the local government with little or no modification.

5.1.6 Comparative GOE MIS Needs Assessment

The final MIS work activity in the original contract specified that an Information System Needs Assessment be undertaken in one governorate. This Assessment was performed in Giza Governorate. It identified sixteen potential computer systems that improved and decentralized decision-making within an urban governorate. This Assessment now serves as a guide for developing Government of Egypt MIS infrastructure in keeping with LD II Urban objectives.

The Information System Needs Assessment conducted in Giza Governorate focused upon the 23 major departments in the Governorate's Central Administration Building. These Departments comprised the central administrative organization, and were universal among the urban governorates. Experience indicated that most of the departments and procedures in the governorates were dictated by ministries or other monitoring organizations and did not vary widely. This similarity was verified in a second needs assessment conducted in Port Said. These two assessments were used as the cornerstones of the MIS strategy for the six governorates.

Results: Operating procedures and data flow of Egyptian governorates are well documented and well understood. These documents can serve as a useful guideline for automation efforts by the governorate MIS Centers or AID donor organizations wishing to improve local government administration and reporting.

5.1.7 Strategic System Plans for each Governorate

Using the two needs assessments described in Section 5.1.6 above, long-term (five-year) system development plans for each governorate were developed. These plans established specific system objectives identified in the assessments with the concurrence and priorities of the governor. Additional areas of recognized need were added to the MIS implementation plan for each governorate. The objectives of these plans were, broadly, to:

- 1) Determine areas of automation need as viewed by management in each governorate;
- 2) Establish the priority by which these potential applications may be addressed;
- 3) Assign an immediate, specific development task to the MIS Center in the governorate for which the LD II Urban office could provide intensive technical assistance;
- 4) Insure that the assigned system is different from that assigned or being undertaken in another governorate;
- 5) Provide an ongoing work plan for the MIS Centers which coordinates the development of systems and implementation of systems developed in other governorates;
- 6) Institutionalize system planning and project management techniques.

Results: These five-year plans provided an organized means of prioritizing system work in the governorates. They provided direction for the MIS Centers and to date they have helped guide the development of more than fifteen systems.

Progress against these plans varied widely among the governorates. Some were simply much more active and capable than others. All of the governorates have made some tangible progress, however, and it is believed that the five-year planning process and its periodic revision will help provide direction for future systems.

5.1.8 Joint Government of Egypt/Contractor System Development Projects

To provide direction for the MIS Centers in all governorates, a program of joint system development was undertaken between the MIS Technical Assistance Team and the Government of Egypt MIS Centers. The outcome of this process was the successful development of pilot applications in each governorate as follows:

Cairo	-	Inventory Control
Alexandria	-	Housing Allocation
Giza	-	Cemetery Fee Collection
Port Said	-	Housing Rent Collection
Qaliubia	-	Water Billing
Suez	-	Agricultural Cooperative Management

Outputs from the development process included system design documentation, source code and user documentation. Consultation and functional assistance was provided as needed to insure successful applications of technology. Some exchange of components between these systems occurred. Cairo's Inventory Control system was adopted by Giza and Suez. Port Said's Housing Rent Collection system became operational in three districts. All of these systems were distributed, with their documentation, among the governorates and the Ministry of Local Administration.

Results: These pilot system development projects provided valuable on-the-job training for engineers in the MIS Centers. They took the MIS staff through all stages of the system development life cycle and gave them a good understanding of what it takes to design, build and implement the information system. In the future, it is hoped this example will allow them to complete the process unassisted. In some governorates this is already happening.

5.1.9 Training in Support of MIS

A comprehensive formal training curriculum was applied together with the on-site technical assistance program. Although some technical training had already been administered, the skill levels of the Government of Egypt MIS staff in the governorates and districts remained far below that required to independently build information systems or even maintain the systems delivered to date by LD II Urban. The training required to bridge this gap was coordinated with the Training Technical Assistance Team and focused on:

- Use of "off the shelf" (already prepared and commercially available) microcomputer software including Arabic wordprocessing, Lotus 1-2-3, and other packages as they became commercially available in Arabic;
- Acquiring MIS development skills that can be used to address custom software needs in the governorate and maintain programs supplied by LD II Urban after demobilization;
- MIS concept training for Government of Egypt managers. This curriculum addressed the services which should be provided by the MIS Center in a governorate. It provided an overview of the automation strategy undertaken by LD II Urban and the ongoing role of information systems;

- In addition, a program of overseas study tours for Government of Egypt MIS management and other decision-making staff was undertaken. The tour took place in the greater Washington DC area. Participants received intensive training in automation concepts and specific applications of computer technology which were relevant in the context of local government administration.

A central theme throughout the MIS-related activities was the issue of training and system follow-up. Specific courses for the governorate MIS staff were identified including:

- Basic Disk Operating System
- Introduction to Microcomputers
- DBASE III Plus
- Advanced DBASE III Plus
- Nafitha Arabization
- Lotus 123
- Harvard Graphics
- System Analysis
- Feasibility Studies
- Application Development

To tie all of the development efforts together and to monitor GOE staff skills, the MIS Technical Assistance Team provided ongoing follow-up to the governorates through site visits and phone calls on a continuing basis. Emergency visits were conducted as required. The site visits consisted initially of discussions with the GOE MIS staff on the project tracking system, and later included the two budget systems. Apart from discussions, emphasis was placed on the application of training and new uses of the software tools supplied.

Results: Training provided a foundation of basic automation skills upon which technical assistance was able to build. This was critical to the overall success of MIS in the governorates which had more to do with the development of people, skills, and understanding than the implementation of discreet systems.

5.2 IMPACTS

During LD II Urban, the MIS Technical Assistance Team developed twelve software applications to support LD II Urban. Some of these applications were implemented in all six urban governorates while others were more limited. This implementation was the direct impact of the work program and is summarized in Figure 5.1. To accomplish this automation, a substantial amount of computer hardware was procured and mobilized. Figure 5.2 shows the type, quantity and location of this equipment. In addition to these computers, a large number of printers, stabilizers, supplies and furnishings were delivered to the governorates.

The organizational development of a computer department in each governorate had a significant impact on their abilities to provide services. Each governorate now has a highly computer literate group which can perform training, develop small systems and procure and maintain equipment.

LDII - URBAN CUSTOM SOFTWARE- GOE INSTALLATIONS

SYSTEM	ALEX	CAIRO	GIZA	QAL.	P. SAID	SUEZ	MLA
QPR (Project Tracking System)							
MLA Reporting Utility							
ROSTER (Training Roster System)							
DNAP (District Needs Assessment Program)							
SPRS (Subproject Rating System)							
CBDS (Current Budget Development System)							
CIP (Capital Improvement Program)							
LMIS (Land Management Information System)							
MAPPING (MapInfo Thematic Mapping)							
KARDEX (Automated Kardex System)							
VMS (Vehicle Maintenance System)							
PBS (Program Budget System)							
HOUSING ALLOCATION							
INVENTORY							
CEMETARY PLOT SALES							
TAX (Agricultural Land Tax)							
WATER BILLING							
RENT COLLECTION							
AGRICULTURAL COOP							

Installed:

Figure 5.1

12/1

LDI URBAN INSTALLED HARDWARE

DEPARTMENT	CPU	CAIRO	GIZA	ALEX	QAL.	SUEZ	P. SAID	MLA	TOTAL
Planning & Follow-up	80386	1	1	1	1	1	1		6
OMED	80286	2	2	2	2	2	2		12
MIS Center	80486	1	1	1	1	1	1		6
MIS Center	80386	4	4	4	4	4	4		24
LMU	80386	1	1	1	1	1	1		6
Training	80286	1	1	1	1	1	1		6
O&M	8088	1	1	1					3
Inventory	80386	1							1
Housing Directorate	8088						2		2
Tax Directorate	80386		1						1
Secretary General	8088							4	4
Totals:		12	12	11	10	10	12	4	71

Figure 5.2

53 INSTITUTIONALIZATION

5.3.1 MIS Technical Subcommittee

The MIS Technical Subcommittee of the Urban Local Development Committee (ULDC) was formed to coordinate system development efforts among the six urban governorates. This technical forum was instrumental in the effective implementation of systems during LD II Urban. The MIS Technical Subcommittee was originally conceived as a mechanism for consolidated MIS budget request submissions to the ULDC. It succeeded in this capacity and also provided considerable direction for LD II Urban technical assistance planning and execution. As MIS infrastructure emerges in the Government of Egypt, the Technical Subcommittee may serve as a user group that can share information, software, experiences, and resources related to system development in the urban governorates. During the LD II Urban contract, the MIS Technical Subcommittee met on 20 occasions, often in the governorates where new system development efforts could be reviewed by the members. Table 5.1 shows the meeting schedule.

Table 5.1

MEETINGS OF THE MIS TECHNICAL COMMITTEE

<u>1989</u>	<u>1991</u>
May 23	January 23
July 10	March 2
August 1	March 14
October 5	May 30
November 27	August 8
	September 2
	December 21
<u>1990</u>	<u>1992</u>
February 10	March 3
March 8	June 28-29
April 30	August 31
June 6	
October 11	

5.3.2 Organization/Management

Objective measures of institutional progress can be evaluated at several levels. From a purely organizational standpoint, the concept of an information center has been formally adopted in the governorate structure. A presidential decree in 1989 established an "Information Center" in each of the 26 governorates. These information centers were comprised of a Statistics Department, Computer Department, Publications Department and a Technical Library.

The tasks and long-term impact of the Information Centers were not well established by the Presidential decree from which they were formed. In this regard, the efforts of LD II Urban were extremely important. The Egyptian government, through the Ministry of Cabinet Affairs, undertook the development of a national database system which used the Information Centers as the collection point for statistical data related to population growth, etc. Providing a facility in each governorate to house this effort was the primary motivation for the Presidential Decree creating the Information Centers. In so doing, the Egyptian government by virtue of its central planning, failed to see the potential that a real system development group could have at the local government level. This is where the LD II Urban MIS Team acted on this opportunity. With the organizational structure actually legally existing, staff were solicited with the assistance of the secretary general of each governorate. A general manager for the Information Center was appointed, along with a manager for the Computer Department and approximately nine staff.

5.3.3 Capacity Building/Resource Mobilization

By the end of LD II Urban, the staff in the computer departments had grown considerably from the original nine persons. These additional staff were primarily trained by the existing staff through peer training sessions. Exact staffing patterns (as of July 1992) are shown in Table 5.2.

Table 5.2

GOVERNORATE COMPUTER DEPARTMENT STAFF

Governorate	Computer Dept. Staff (July 1989)	Computer Dept. Staff (July 1992)	% Change
Alexandria	9	12	+33
Cairo	9	16	+77
Giza	9	9	0
Port Said	9	13	+44
Qaliubia	9	13	+44
Suez	9	10	+11

The percentage of change in staff varies from 0% (no change) in Giza to 77% in Cairo. From this it may be concluded that the demand for information services in the governorates increased in most cases. It is also important to note that attrition of trained technical staff to the private sector has not been a substantial factor. This appears to be a good sign for the institutional future of the MIS computer departments.

Although staffing is an indicator of the viability and growth of a department, the technical skill level of the staff in the MIS Departments is a far more telling indicator of institution building. A survey was conducted by the LD II Urban MIS Technical Assistance Team to determine just how much improvement had occurred. The staff in each MIS Center were asked to fill out self-assessment questionnaires indicating their skill levels in 17 technical areas. Seventy-one questionnaires were returned, the results of which are shown below in Figure 5.3. Note: skills

MIS CENTER STAFF SKILL DEVELOPMENT

SKILL	# OF RESPONDENTS REPORTING SKILL	% OF RESPONDENT REPORTING SKILL	SUMMARY OF RESPONSES					AVERAGE SKILL LEVEL
			POOR (1)	FAIR (2)	GOOD (3)	V. GOOD (4)	EXCEL (5)	
DOS	71	100%	0	3	12	32	24	4
DBASE III+	70	99%	0	4	20	26	20	4
HARVARD GRAPHICS	56	79%	4	4	11	27	10	4
LOTUS 123	54	76%	1	8	15	23	7	4
SYSTEM ANALYSIS	51	72%	3	10	16	10	12	3
FLOWCHART	40	56%	0	8	14	7	11	4
NAFITHA	41	58%	0	7	16	11	7	3
FOXPRO	36	51%	0	2	16	12	6	4
WORD STAR	32	45%	1	2	12	12	5	4
APPLICATION DEVELOPMENT	27	38%	0	2	8	10	7	4
CLIPPER COMPILER	32	45%	0	6	17	6	3	3
FORMTOOL	30	42%	0	9	12	6	3	3
SIDEKICK EDITOR	21	30%	0	4	11	4	2	3
FEASIBILITY STUDIES	19	27%	0	4	6	6	3	3
QUATTRO PRO	16	23%	0	1	3	8	4	4
ARAB WORD	19	27%	3	3	10	3	0	3
WORD PERFECT	14	20%	3	1	7	1	2	3
BASIC	11	15%	3	0	2	4	2	3
PC STORYBOARD	9	13%	0	3	4	0	2	3
R&R	5	7%	0	0	0	5	0	4
COBOL	4	6%	0	0	2	1	1	4
SOFT CODE	3	4%	0	0	0	2	1	4
FORTTRAN	3	4%	0	0	2	0	1	4
HARVARD PROJECT MANAGE	3	4%	0	0	1	2	0	4
CLARION	3	4%	0	2	0	0	1	3
DATABASE ADMINISTRATION	2	3%	0	0	0	2	0	4
MULTI PLAN	2	3%	0	0	2	0	0	3
C+	1	1%	0	0	1	0	0	3

5-12

Figure 5.3

in bold type indicate those for which formal training courses were administered by LD II Urban. Since the sample group (governorate computer department staff) began with no knowledge of computer technology these improvements are relatively easy to measure.

In the same survey, we asked the sample group to tell us how they obtained the skills referred to above. Responses included formal LD II Urban training courses, peer training, self teaching, and technical assistance. In some cases more than one method contributed to the learning process. Figure 5.4 gives a summary of these training methods. It is noted that a significant degree of skill development occurred through self teaching and peer training. The two activities heavily utilize the reference materials supplied by LD II Urban.

5.3.4 Sustainability

Based upon current strength, past performance, required tasks and resources available, some assessment can be made of the sustainability of the MIS Centers within the governorates. A set of sustainability tests or indicators, was developed which can be objectively applied to each governorates MIS Center. If all the factors outlined are present, the organization should thrive. If more than a few are not present, sustainability is jeopardized. To make use of this hypothesis, each governorate's MIS Center was examined based upon the following tests (indicators):

- 1) Is the MIS Center a formal part of the governorate structure?
- 2) Are there permanently assigned staff who have been properly trained?
- 3) Are there members of the MIS Center staff who are capable and motivated enough to maintain and build complex systems?
- 4) Is the MIS Manager capable and motivated enough to manage the existing systems in the governorate?
- 5) Does the MIS Center have the equipment necessary to develop and implement more systems?
- 6) Does the governorate have a hardware maintenance agreement in place?
- 7) Do the Governor and Secretary General monitor the data from systems in the governorate?
- 8) Has the governorate successfully completed its five-year MIS plan?
- 9) Has the governorate made progress against its five-year MIS plan?
- 10) Is the MIS Manager an active participant in the Technical Committee meetings?
- 11) Has the MIS Center successfully conducted peer training?
- 12) Has the MIS Center successfully managed its own hardware procurement?
- 13) Has the MIS Center successfully developed a pilot information system?

Training Methods Utilized in Skill Development

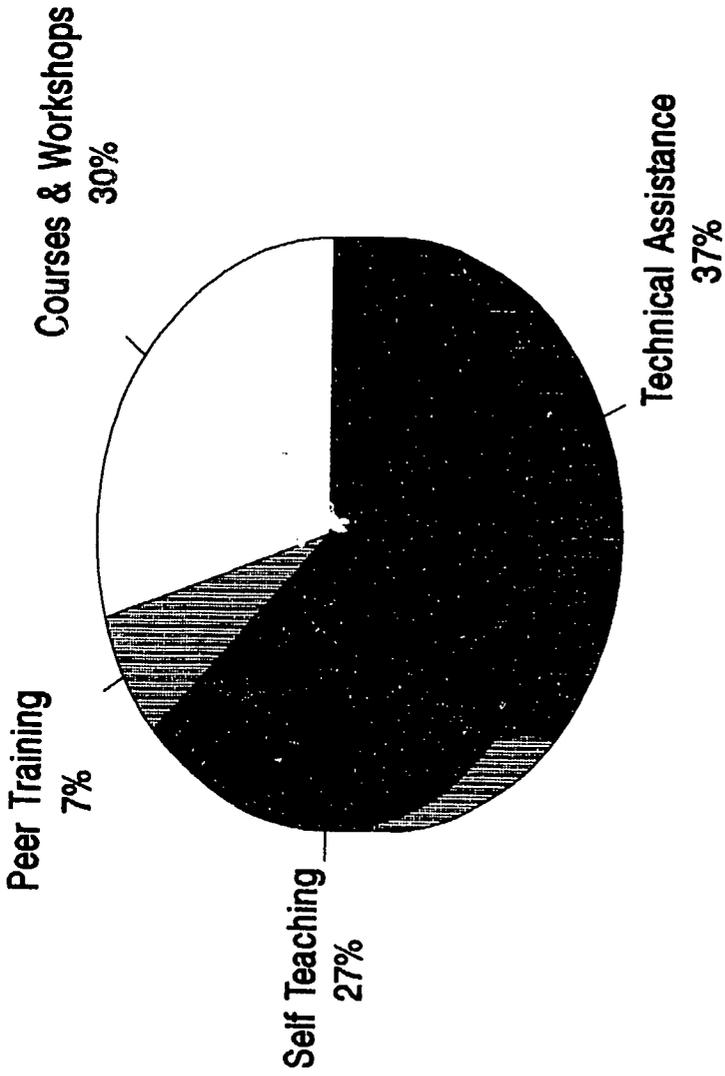


Figure 5.4

- 14) Has the MIS Center successfully implemented a system in another governorate department?
- 15) Has the MIS Center successfully developed its own user and technical documentation?

While we recognize that some of these tests are more telling indicators of sustainability than others, a value of one through five was assigned to each, based upon the following assessment scale:

- 0 - Does not meet the test in any way.
- 1 - Meets the test only marginally.
- 2 - Meets the test but needs substantial improvement.
- 3 - Meets the test adequately.
- 4 - Meets and surpasses the test in some respects.
- 5 - Meets and surpasses the test significantly.

By adding up the values from each test, a total score was assigned which provided a comparative measure of sustainability among the governorate MIS Centers.

By reference to Tables 5.3 and 5.4, it may be inferred that Port Said stands an excellent chance of persisting and growing. Cairo governorate's MIS Center is also sound, although it lacks some of the initiative seen in Port Said. Alexandria and Giza stand fair chances of success although they are not as proactive or technically capable. Qaliubia and Suez are functioning well and will no doubt continue. Whether their capacity will grow over time is less certain. In the long run, the critical factors will be the support of the governor and the leadership of the GOE MIS Manager.

The development of new systems by a governorate is the best litmus test of sustainability that can be applied at this time. If a governorate can build and implement their own systems, they can likely maintain the ones left for them. Table 5.5 provides evidence of this capacity. Again, Port Said is the most proactive with eight developed systems. Cairo and Qaliubia are less developed with three systems each. Three systems however, is a substantial achievement for organizations which had no computer literacy only two-and-a-half years ago.

5.3.5 Major Issues

It has to be recognized that where a system serves a direct interest of a governorate, (such as revenue generation or administration of a critical process), it will likely continue until the hardware or software fail. This could be many years. On the other hand, where a system serves a purpose largely defined by an outside source such as LD II Urban, once the Technical Assistance Contractor (LD II Urban) and USAID cease to make a priority of the data resulting from that system, the incentive to continue data entry and reporting evaporates. Therefore, these systems in most cases will no longer be used once LD II Urban is completed.

Both circumstances are already evident in the governorates. The inventory control system, which serves a direct interest in Cairo governorate, has run effortlessly for over a year with no intervention from the Technical Assistance Contractor. The governorate wants the system (the governor requested it himself); it serves an ongoing need, and it outperforms the manual procedures by a huge margin. It is likely the inventory department in Cairo will continue administering that system because it saves them a lot of work and the Ministry of Finance requires that work to be done.

Table 5.3

MIS - SUSTAINABILITY TESTS TOTAL SCORES

INDICATOR	ALEX.	CAIRO	GIZA	PORT SAID	QALIUBIA	SUEZ	AVERAGE
1	5	5	5	5	5	5	5
2	4	5	4	5	3	3	4
3	4	4	4	5	3	3	4
4	5	4	4	5	3	4	4
5	5	5	5	5	5	5	5
6	3	3	0	3	4	4	3
7	2	4	3	3	3	3	3
8	3	4	0	5	2	3	3
9	3	3	0	4	2	1	2
10	5	5	4	5	4	4	5
11	4	3	2	4	2	0	3
12	2	0	4	4	0	3	2
13	3	3	4	5	3	3	4
14	3	4	4	5	1	1	3
15	0	2	3	4	3	0	2
16	3	3	3	5	3	0	3

TOTAL:	54	57	49	72	46	42	53
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SUSTAINABILITY PERCENTAGE:	68%	71%	61%	90%	58%	53%	67%
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msustain/gh

Table 5.4

MIS SUSTAINABILITY INDICATORS (Tests)

Scored Points

1.	Is the MIS Center a formal part of the governorate structure ?	
	<input type="radio"/> Does not meet the test in any way	0
	<input type="radio"/> Meets the test only marginally	1
	<input type="radio"/> Meets the test but needs substantial improvement	2
	<input type="radio"/> Meets the test adequately	3
	<input type="radio"/> Meets and surpasses the test in some respects	4
	<input type="radio"/> Meets and surpasses the test significantly	5
2.	Are there permanently assigned staff who have been properly trained ?	
	<input type="radio"/> Does not meet the test in any way	0
	<input type="radio"/> Meets the test only marginally	1
	<input type="radio"/> Meets the test but needs substantial improvement	2
	<input type="radio"/> Meets the test adequately	3
	<input type="radio"/> Meets and surpasses the test in some respects	4
	<input type="radio"/> Meets and surpasses the test significantly	5
3.	Are there members of the MIS Center who are capable and motivated enough to maintain and build complex systems ?	
	<input type="radio"/> Does not meet the test in any way	0
	<input type="radio"/> Meets the test only marginally	1
	<input type="radio"/> Meets the test but needs substantial improvement	2
	<input type="radio"/> Meets the test adequately	3
	<input type="radio"/> Meets and surpasses the test in some respects	4
	<input type="radio"/> Meets and surpasses the test significantly	5
4.	Is the MIS Manager capable and motivated enough to manage the existing systems in the governorate?	
	<input type="radio"/> Does not meet the test in any way	0
	<input type="radio"/> Meets the test only marginally	1
	<input type="radio"/> Meets the test but needs substantial improvement	2
	<input type="radio"/> Meets the test adequately	3
	<input type="radio"/> Meets and surpasses the test in some respects	4
	<input type="radio"/> Meets and surpasses the test significantly	5
5.	Does the MIS Center have the equipment necessary to develop and implement more systems?	
	<input type="radio"/> Does not meet the test in any way	0
	<input type="radio"/> Meets the test only marginally	1
	<input type="radio"/> Meets the test but needs substantial improvement	2
	<input type="radio"/> Meets the test adequately	3
	<input type="radio"/> Meets and surpasses the test in some respects	4
	<input type="radio"/> Meets and surpasses the test significantly	5

Table 5.4 (Continued)

MIS Sustainability Indicators (Tests)

		Scored Points
6.	Does the governorate have a hardware maintenance agreement in place?	
	o Does not meet the test in any way	0
	o Meets the test only marginally	1
	o Meets the test but needs substantial improvement	2
	o Meets the test adequately	3
	o Meets and surpasses the test in some respects	4
	o Meets and surpasses the test significantly	5
7.	Does the Governor and Secretary General monitor the data from systems in the governorate?	
	o Does not meet the test in any way	0
	o Meets the test only marginally	1
	o Meets the test but needs substantial improvement	2
	o Meets the test adequately	3
	o Meets and surpasses the test in some respects	4
	o Meets and surpasses the test significantly	5
8.	Has the governorate successfully completed its five-year MIS plan?	
	o Does not meet the test in any way	0
	o Meets the test only marginally	1
	o Meets the test but needs substantial improvement	2
	o Meets the test adequately	3
	o Meets and surpasses the test in some respects	4
	o Meets and surpasses the test significantly	5
9.	Has the governorate made progress against its five-year MIS plan?	
	o Does not meet the test in any way	0
	o Meets the test only marginally	1
	o Meets the test but needs substantial improvement	2
	o Meets the test adequately	3
	o Meets and surpasses the test in some respects	4
	o Meets and surpasses the test significantly	5
10.	Is the MIS Manager an active participant in the Technical Committee meetings?	
	o Does not meet the test in any way	0
	o Meets the test only marginally	1
	o Meets the test but needs substantial improvement	2
	o Meets the test adequately	3
	o Meets and surpasses the test in some respects	4
	o Meets and surpasses the test significantly	5

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Table 5.4 (Continued)

MIS Sustainability Indicators (Tests)

Scored Points

11.	Has the MIS Center successfully conducted peer training?	
	<input type="radio"/> Does not meet the test in any way	0
	<input type="radio"/> Meets the test only marginally	1
	<input type="radio"/> Meets the test but needs substantial improvement	2
	<input type="radio"/> Meets the test adequately	3
	<input type="radio"/> Meets and surpasses the test in some respects	4
	<input type="radio"/> Meets and surpasses the test significantly	5
12.	Has the MIS Center successfully managed its own hardware procurement?	
	<input type="radio"/> Does not meet the test in any way	0
	<input type="radio"/> Meets the test only marginally	1
	<input type="radio"/> Meets the test but needs substantial improvement	2
	<input type="radio"/> Meets the test adequately	3
	<input type="radio"/> Meets and surpasses the test in some respects	4
	<input type="radio"/> Meets and surpasses the test significantly	5
13.	Has the MIS Center successfully developed a pilot information system?	
	<input type="radio"/> Does not meet the test in any way	0
	<input type="radio"/> Meets the test only marginally	1
	<input type="radio"/> Meets the test but needs substantial improvement	2
	<input type="radio"/> Meets the test adequately	3
	<input type="radio"/> Meets and surpasses the test in some respects	4
	<input type="radio"/> Meets and surpasses the test significantly	5
14.	Has the MIS Center successfully implemented a system in another governorate department?	
	<input type="radio"/> Does not meet the test in any way	0
	<input type="radio"/> Meets the test only marginally	1
	<input type="radio"/> Meets the test but needs substantial improvement	2
	<input type="radio"/> Meets the test adequately	3
	<input type="radio"/> Meets and surpasses the test in some respects	4
	<input type="radio"/> Meets and surpasses the test significantly	5
15.	Has the MIS Center successfully developed its own user and technical documentation?	
	<input type="radio"/> Does not meet the test in any way	0
	<input type="radio"/> Meets the test only marginally	1
	<input type="radio"/> Meets the test but needs substantial improvement	2
	<input type="radio"/> Meets the test adequately	3
	<input type="radio"/> Meets and surpasses the test in some respects	4
	<input type="radio"/> Meets and surpasses the test significantly	5

Table 5.5

INDEPENDENTLY DEVELOPED APPLICATIONS BY GOVERNORATE

Alexandria:	Housing Allocation System Library System Governor Decree System Incentive Distribution System Personnel Roster System
Cairo :	Housing Allocation System Technical Schools System Inventory Control System
Giza :	Cemetery Plot Sales System Egyptian Expatriate System District Shop License System Private Companies System
Port Said :	Personnel System Library Catalog System District Needs Assessment System Investment Project Evaluation System Traffic Violation System Housing Beneficiary System Housing Rent Collection System Unemployed Graduate System
Qaliubia :	Water Utility Billing System School Teacher Database Library Catalog System
Suez :	Personnel System Fisheries System Complaints Database Vehicle Maintenance System Food Subsidy System

Conversely, the Project Rating System, which was implemented recently in all governorates, stands a good chance of being abandoned. The System automates the process of rating LD II Urban projects. It has been difficult to convince governors, and their staff, that this is particularly useful to them. Therefore, it is likely the incentive to continue project rating will disappear. Pressure from the Ministry of Planning may promote the ongoing maintenance of the System but this is in no way assured.

Other MIS issues relate to the future development of systems in the governorates. The small microcomputer systems installed under LD II Urban represent a substantial step forward. Many systems are performing real work in the governorates. Hundreds of people have learned basic computer skills and have overcome their fear of the technology. But this work has only softened the way toward automation of the major functions in the organization. Modern local governments are for the most part a large computer system, albeit with many connected personnel and functionaries. For local government in Egypt to be effective, a much more complex level of automation must be achieved. While a good start was made, large scale automation was not a primary goal of LD II Urban and only small amount of work was undertaken in this regard.

However, one significant step was the completion of the Budget Monitoring Phase II Report. This document analyzed in great detail the requirements for major automation of a governorate. It turned a governorate into a modern disbursement accounting organization. If the system contemplated in the Budget Monitoring Phase II Report was developed, administration of the governorates would be revolutionized overnight. This is an issue which the governorates and USAID could assess in the long run. Unfortunately, the resources required to build such a system leave it well beyond the context of LD II Urban.

5.4 RECOMMENDATIONS

5.4.1 Maintenance of Existing Systems

The MIS systems designed and implemented by LD II Urban were made as maintenance-free as possible. The software itself automated most of the routine data maintenance that the systems will need. While the systems will likely run unattended for several years, their usefulness may erode over time as new requirements and changing government laws and procedures render the software obsolete. The issue of system usefulness centers upon how well the governorate MIS Center staff can modify the original program code. In some cases the complexity of these programs far exceeds the ability of even the brightest governorate trainees. With these systems it is doubtful that modifications can readily be made. With simpler systems, there is no question that governorate employees are capable of maintaining and upgrading them. To support this process, original program codes and documentation for all of the systems produced by LD II Urban were distributed to each of the MIS Centers. Members of the MIS Center staff were briefed on the program structures in the hope that they can ultimately understand and modify these systems or build new ones which are functionally superior.

As for the hardware on which the systems reside, depreciation will result in loss. While computer equipment is normally depreciated over two to three years, it can be expected to work for five or more years without malfunction. All of the urban governorates currently have maintenance contracts in place to assure the interim functioning of their hardware. Governorates should continue to renew these maintenance contracts in the future. Funds should be provided for project maintenance in the block grant process. The extent to which the

governorates utilize these funds is an issue. In cases where the system in question is vital to a governorate, no doubt it will find the funds to replace the hardware.

5.4.2 Applications for Local Resource Mobilization

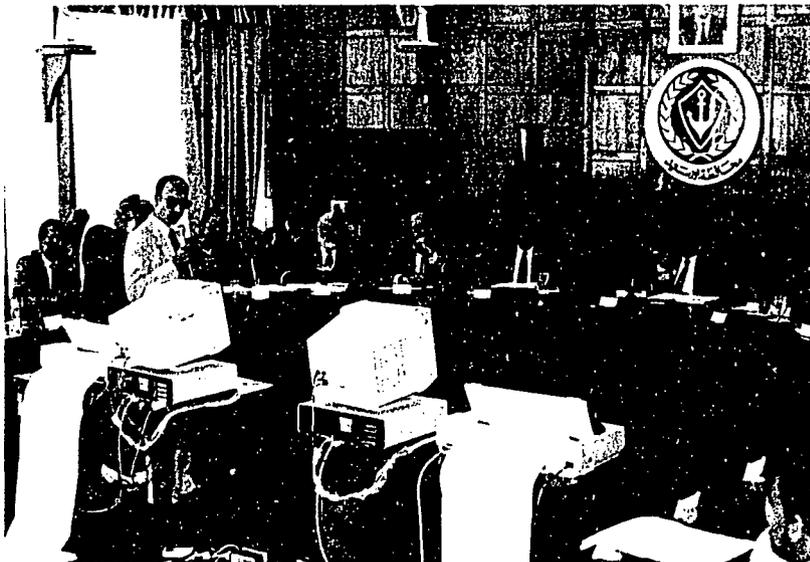
Three major systems were developed by MIS Centers within several governorates which can have a substantive impact on local resource mobilization within the governorates. Briefly they are:

- 1) **Housing Rent Collection**, a system which administers monthly collection of rents and utilities from governorate housing projects was implemented in Manakh District and El Shark District in Port Said Governorate.
- 2) **Inventory Control**, a system which automates the Ministry of Finance procedures for warehousing of capital and consumable assets was implemented in the main warehouse of Cairo governorate. Similar software was implemented for spare parts inventory control in the Sayeda Nafissa Garage in Cairo Governorate, the Central Garage in Alexandria Governorate and the Desert Road Garage in Giza Governorate.
- 3) **Agricultural Land Tax Collection**, a system which automates property deed records and levies appropriate taxes based upon utilization was implemented in Giza City.

These systems were tested and are successfully running in some of the urban governorates. They potentially have widespread use and impact with a more thorough distribution throughout the governorates. Governorates may distribute and implement these pre-developed systems based upon their revenue generation capacity. To encourage this, copies of the source code and documentation were supplied to each of the MIS Centers. Some of them have already begun to implement these systems. Notably, Giza Governorate is implementing Inventory Control, and Port Said has completed its second implementation of Housing Rent Collection in El Shark District. While this shows promise, the governorates are only utilizing a small amount of these systems' widespread potential.



OMED GOVERNORS CONFERENCE - CAIRO



OMED TECHNICAL SEMINAR - PORT SAID



OMED OFFICE STAFF - ALEXANDRIA GOVERNORATE



OMED VIDEO PRESENTATION - SUEZ GOVERNORATE

Section 6

OFFICE OF MANAGEMENT
AND
ECONOMIC DEVELOPMENT
(OMED)

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6. OFFICE OF MANAGEMENT AND ECONOMIC DEVELOPMENT (OMED)

6.1 TARGETS AND RESULTS

The primary task of the Office of Management and Economic Development (OMED) was to introduce advanced budgetary and financial management techniques to the six urban governorates. This was to be accomplished by:

- installing OMED organizations within the governorates;
- implementing new budget practices and procedures, including the development and installation of five-year forecasting models for revenues and expenditures;
- discussing and reaching consensus with the six urban governorates on budget development process practices and procedures;
- coordinating training of the OMED staff and governorate staff in management, budget, and analytical concepts and techniques;
- coordinating the annual Maintenance Plan with the budgetary process;
- conducting a continuing technical assistance program to develop OMED staff skills in fiscal and economic analyses, and planning;
- developing a plan to increase local resource mobilization through sustainable autonomy;
- determining the feasibility and developing an implementation plan to automate major accounting functions of a governorate.

Upon completion of these activities, it was intended that these offices would be able to assume a role similar to an industrialized-country municipal management office.

6.1.1 Level of Technical Assistance

On-site technical assistance was an important factor in the success of the OMED component. It allowed the Technical Assistance Contractor (TAC) to determine the status of the OMED in each governorate, determine the training needs of the office staff, and assess the capabilities of the individual staff members. In addition, it provided a means for informal training in the concepts and techniques that were presented in the more formal class-room environment during the OMED training courses.

Contractor Personmonths - A total of 276 professional and 46.5 non-professional personmonths were expended under this component.

Training Costs - Trainees from the GOE OMED departments received a total of 1995 days of instruction at a cost of LE 57,867.

6.1.2 Programming and Budgeting Task Background

The budgetary and financial management process of local government in Egypt is centrally controlled by national-level ministries. Within the existing organizational structure of a governorate, no one unit has the responsibility or capacity to advise or assist the governor, or other management staff within the governorate, on the policy or long-term effect of financial decisions on a comprehensive basis. Little consideration is given to the effect of decisions on one part of the budget on another, nor is their substantive analysis performed of individual units within the governorate. Even if there were a desire to perform the necessary analysis, the manual nature of the budgetary and financial management process makes this effectively impossible. This reflects both the centralized orientation of the Government of Egypt and the manual nature of financial systems.

6.1.3 Installation of Offices

Beginning in August of 1988 and ending in November of 1989, each of the six urban governorates appointed staff and received the equipment and software from LD II Urban necessary to initiate operations. Table 6.1 shows when each of the individual offices were formed by governor's decree.

Table 6.1
FORMATION OF OMED OFFICES

Governorate	Date	Decrec No.
Alexandria	April 1989	111
Cairo	August 1988	236
Giza	February 1989	128
Port Said	October 1989	285
Qaliubia	August 1988	440
Suez	May 1989	32

Source: WSA

Each of the six offices were equipped with:

- o two personal computers and printers;
- o a photocopy machine;
- o air conditioners (primarily to protect the computers);
- o Lotus 1-2-3 spreadsheet, Harvard Graphics, Ashton-Tate dBASE III Plus and Norton Utilities software;
- o various other pieces of office furniture including conference tables, chairs and desks.

Provision of this equipment and appointment of staff effectively created the OMED in each governorate.

Staff were seconded from various governorate departments to the OMEDs on a part-time basis. In the case of the Giza Governorate OMED, the assignments became effectively permanent. Tables 6.2a and 6.2b show the original versus the current complement of staff and the source departments.

Table 6.2a

DEPARTMENTS FROM WHICH OMED STAFF WERE ORIGINALLY SECONDED AS OF MAY 1992

Source Departments	Alex	Cairo	Giza	Port Said	Qa1	Suez	Total
OMED Directors:							
Central Auditing and Analysis of Agency Reports					1		1
Financial Affairs	1			1			2
Personnel			1				1
Productive and Economic Affairs		1				1	2
OMED Staff:							
Central Auditing and Analysis of Agency Reports, Administrative Inspection				1	2		3
Financial Affairs		1	1	1	1	2	6
Financial Directorate	1						1
Councils and Conferences, Internal Cooperation, and Public Relations		1			1		2
Management Information Services	1	1		1	1		4
Personnel and Agricultural	1	1		1	1	1	5
Planning and Follow-up, Land Planning, and Planning	1	1	1	2	1	1	7
Productive and Economic Affairs		1		1			2
Revenue and Local Unit	1	1					2
TOTAL	6	8	3	8	8	5	38

Source: WSA

Table 6.2b

DEPARTMENTS FROM WHICH OMED STAFF WERE ORIGINALLY SECONDED AS OF MAY 1992

Source Departments	Alex	Cairo	Giza	Port Said	Qal	Suez	Total
OMED Directors:							
Central Auditing and Analysis of Agency Reports					1		1
Financial Affairs	1			1			2
Personnel			1				1
Productive and Economic Affairs		1				1	2
OMED Staff:							
Central Auditing and Analysis of Agency Reports, and Administrative Inspection					1		1
Financial Affairs	2		1	2	1	1	7
Financial Directorate	1						1
Councils and Conferences, Internal Cooperation, and Public Relations			1				1
Management Information Services							0
Personnel and Agricultural	1		2	2	4	2	11
Planning and Follow-up, Land Planning, and Planning							0
Productive and Economic Affairs		2		1		1	4
Revenue and Local Unit					1		1
TOTAL	5	3	5	6	8	5	32

Source: WSA

6.1.4 New Budget Practices and Procedures

The implementation of new budget practices and procedures occurred on two levels: 1) introduction of the personal computer and selected financial analysis software to the governorates; and 2) training and technical assistance in applying new techniques in budgeting and financial management. Without the introduction of the personal computer, it is unlikely that the governorates would have been able to apply the new analytic techniques. The manual nature of the current financial systems would have been an almost insurmountable barrier.

The major activity of the OMED component is to develop a balanced, consolidated budget for the governorate. The old practice was that the budget was prepared by three separate departments¹ within the governorate and consolidated by the Financial Directorate². If a gap existed between expenditures and revenues it was assumed that a subsidy from the central government would then make up the difference. This led to a random irregular style of budgeting where no clear understanding of internal priorities for the governorate played any role and very little actual planning occurred.

To achieve a balanced, consolidated budget, the TAC developed and installed in all six governorates three systems that provided a means to quickly summarize the budget requests, allow for analysis, and then develop a rationalized recommended budget for the governor's use in negotiating with the Ministry of Finance. These systems were the:

- o Current Budget Development System;
- o Capital Investment Planning System;
- o Revenue and Expenditure Projection System.

The Current Budget Development System (CBDS) and Capital Investment Planning System (CIPS) were developed using Ashton-Tate dBASE III Plus and the Revenue and Expenditure Projection System was developed using Lotus 1-2-3 spreadsheet software. These three systems represented the tools that the OMEDs could use to achieve the goal of developing a prioritized, balanced budget.

The process that used these tools required the OMEDs to take the following steps:

- o Develop a reasonable estimate for local revenues and the subsidy from the central government to establish what the governorate could expect to receive;
- o Analyze the budget to identify and quantify those items which are mandatory to support during the upcoming fiscal period;
- o Prioritize the new requests for funds within the remaining funds available.

¹ The Department of Personnel developed the wages and salaries budget (BAB I), the Department of Financial Affairs developed the budget for non-recurring costs such as supplies, services contracts, etc. (BAB II), and the Department of Planning and Follow-up developed the capital projects budget (BAB III). These were all based upon requests by lower governmental units.

² The Financial Directorate is not part of a governorate. It is the local arm of the Ministry of Finance.

Results: The outcome of this process was that the governorates developed a budget that was realistic in terms of expectations, but also reflected the local needs in terms of which items it found desirable to fund. Five of the six urban governorates have produced a series of current budgets that have met this criteria. The result of this type of process is that the budget becomes a planning document that allows a governorate to be proactive rather than reactive. The success of these efforts has led to the initial request by the Urban Local Development Committee to the Central Agency for Organization and Administration to institutionalize the OMEDs.

In addition to the introduction of these three main budget practices, other budget practices and procedures were introduced and used on a more limited scale. These included:

- o introducing budgeting by sub-units within a governorate;
- o introducing program budgeting, on a pilot basis, in two governorates (Qaliubia and Port Said);
- o introducing capital investment programming techniques (Suez, Port Said, and Giza).

The CBDS and CIPS were both extensively modified to incorporate the elements of these additional techniques for future use by all of the OMEDs once they were successfully applied in a limited number of governorates. The modifications of these two systems also made it easier to use the systems to minimize the need for outside technical intervention (i.e., LD II Urban) in preparation for the eventual end of LD II Urban.

6.1.5 Concensus Between the Six Urban Governorates on Budget Development Process Practices and Procedures

A series of successful seminars was held for upper management of the six urban governorates. At these conferences, the advantages of the budget development process practices and procedures were outlined. As the OMEDs developed technical competence, practical examples of the advantages of the these techniques were presented. As an essential reinforcement of these seminars, the OMEDs were required to present their findings on the budget to the governor and secretary general in a formal budget review meeting that included other members of upper management of the governorate. An outcome of these seminars and formal budget meetings was the establishment of the OMED as a credible force in the area of financial management.

Results: A major result was that the OMED in three governorates (Alexandria, Giza, and Port Said) were direct participants in the budget negotiation process with the Ministry of Local Administration (MLA). In the case of Qaliubia, the Governor acted on a number of the findings contained in the OMEDs budget analysis. However, due to lack of support by the secretary general, this OMED never achieved the leadership role experienced by Alexandria, Giza, and Port Said while simultaneously being one of the strongest technical OMEDs. It should be noted however, that the Qaliubia OMED is undertaking substantive efforts in the area of Program Budgeting. It is the first governorate, in fact, the first governmental entity in the Government of Egypt, to apply this budgetary technique. It is now in the process of expanding this effort to the Qaliubia Governorate Educational Services

Directorate. In the case of the Suez OMED, at one point it was appointed to take the lead role in budget preparation and did make presentations to the local Popular Council on the Current Budget. Due to a change in governors, the role of the Suez OMED temporarily declined, but has recently begun to reestablish itself as the leader in budget development.

The final result of these seminars and the formal budget presentations was the initiative by the six urban governorates to request institutionalization of the OMEDs by the Central Agency for Organization and Administration. As explained in Section 2.1, this was ultimately successful.

6.1.6 Training in Support of OMED

The training that was received by the OMED staff was the key to their success back in the governorate. The training was provided in two environments: formal in-class training, and on an informal basis within the governorate. This latter element of the training also constituted the continuing technical assistance portion of the OMED component of LD II Urban. This model of training was extremely successful in transferring the skills and technical knowledge necessary for the OMED staff to be successful. In many cases, the OMED staff would already be familiar with the concepts that were introduced in the formal classroom environment. This in turn was followed up with in-governorate training by the TAC that further reinforced the concepts.

The content of the training occurred along two main tracks: developing a working knowledge of the computer, and the introduction of advanced budgetary techniques. Basic introductory training was provided in the use and maintenance of the personal computer and then moved into training in the use of the application software such as Lotus 1-2-3, Harvard Graphics, and dBASE III Plus. One difficulty, especially in dBASE III Plus, was that the goal of the training was to familiarize the trainees with the capability of the software. Often times, the training resulted in a desire on the trainee's part to become a proficient programmer in dBASE III Plus which distracted from the actual work the trainee was expected to perform. This was resolved by in-governorate training provided by the TAC.

Formal training in budgetary techniques was provided in Financial Forecasting and Budget Development. The most significant course offered was the course entitled "Budget Development". This course was developed and taught by an American practitioner, rather than theorist, in municipal financial management. Through this course, the OMED staff saw that the concepts that were being presented to them actually worked in the American environment and had applicability here in Egypt. This course established the general credibility of the OMED concept with the OMED staff. Again this was reinforced by in-governorate informal training primarily through problem solving exercises related to analysis of actual budget items being considered in the budget development process.

The training program culminated in November 1991 with the overseas training program. This program provided two weeks of training, held in large part within local government agencies in the USA, covering the spectrum of topics related to local and municipal financial management and budget development. A follow-up seminar was held to disseminate the information through participant reports to the majority of the OMED personnel in all six governorates.

Results: Table 6.3 displays the formal training courses provided to the OMED staff, the number of participants, the number of times the class was offered, and the total number of trainee days.

Table 6.3

OMED FORMAL TRAINING COURSES

Course Title	No. of Trainees	No. of Courses	Total Trainee Days
Introduction to Computers and DOS	30	2	130
Introduction to Lotus 1-2-3	64	6	497
Advanced DOS and Introduction to dBASE III Plus	35	3	183
Advanced dBASE III Plus	16	1	80
Advanced Lotus 1-2-3	23	2	125
Harvard Graphics & Advanced Presentation Skills	20	2	140
Financial Forecasting	28	2	140
Budget Development Seminar	45	2	135
Overseas Training - Pre-departure Seminar	21	1	21
Overseas Training Program	21	1	315
Overseas Training - Transfer of Knowledge	33	1	66
TOTAL	336	23	1,832

Source: WSA

Analysis of this table indicates that the heaviest concentration of formal instruction was in the area of computer training. This area lends itself to a more formal training format. The training in the areas of budgetary development and analysis occurred primarily in the field through the in-governorate visits by the TAC.

6.2 IMPACTS

6.2.1 Programming and Budgeting

The impact of the OMED component of LD II Urban on the administrative capacity of the governorate can best be described by reviewing a series of activities prior to and following LD II Urban involvement. Table 6.4 shows the impact that the OMED component has had on the administrative capacity of a governorate.

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Table 6.4

IMPACT OF OMED COMPONENT ON ADMINISTRATIVE CAPACITY OF GOVERNORATES

ACTIVITY / FOCUS	1988	1992	IMPACT
Focus of budget process	Report to Ministry of Finance	Support decision-making at the governorate level	The governor is a decision-maker in the budget process
Consolidation of budget requests	Manually performed by the Finance Directorate ³	Performed by OMEDs using a computerized budget development system	The budgetary information is available to the governorate decision-makers in more detail and from a unit that reports directly to them
Historical database of financial information	Available solely in manual registers making it extremely difficult to acquire meaningful information	Automated and updated annually as part of the budget development process	Financial decisions are made on the basis of quantifiable information based on historical information
Forecasting of revenues and expenditures	None	A multi-year forecasting model is operational and updated and used annually	An initial bench-mark is set for each budget cycle against which the budget request is measured
Phases for budget cycle	1. Request 2. Council Approval 3. Allocation by Ministry of Finance	1. Request 2. Recommended ⁴ 3. Council Approval 4. Allocation by Ministry of Finance	Consideration of options and priorities reviewed by the management of the governorate is incorporated in the "Recommended" phase
Relation between Revenues and Expenditures	Disregarded	Budgets are established based on a realistic assumption of revenues	The budget is not an expression of a un-realistic list of "wishes" but is supportable ⁵ by a realistic growth in support

³ The Finance Directorate is the local arm of the Ministry of Finance, not part of the governorate organization.

⁴ One of the criteria established for the recommended budget is that it be "rationalized". In other words, it should incorporate a realistic appraisal of expected revenue and cover mandatory costs.

⁵ In 1991-92, the budget recommended by the OMEDs of three governorates ranged within 1.44% to 8.29% of the final Ministry of Finance allocation. The budget developed for the same governorates under the old process exceeded the final Ministry of Finance allocation from 8.88% to 19.74%.

Table 6.4(Continued)
Impact of OMED Component on Administrative Capacity
of Governorates

ACTIVITY / FOCUS	1988	1992	IMPACT
Analysis of Central Subsidy	Disregarded, assumed to be sufficient to support whatever is requested	Analyzed and forecasted	The subsidy from the central government for a governorate is a major source of support; an accurate estimate is integral to developing a realistic budget
Revenue Analysis	Simple average of prior three years	Analysis is conducted on a series of levels <ul style="list-style-type: none"> • Revenue Forecasts • Trend Analysis of: <ul style="list-style-type: none"> • End of year accounts • Allocations • Changes in laws • Financial and Economic Data 	Revenue estimates are based on a series of exercises that lead to the development an "informed" revenue estimate
Expenditure Analysis	Simple percentage increase to funding level	Mandatory items computed, the balance between mandatory and the realistic support level are available to support growth in old or new programs	Additional items are added to the budget based on governorate priorities established by governorate management
Budget Analysis	Superficial	In-depth, applying financial and computerized analysis techniques	The budget is subjected to a thorough review of all elements
Report Format	Simple tables for <ul style="list-style-type: none"> • Previous allocations • Draft budget • Amount of change <p>These are supported by justification for the requested change</p>	Assumptions used to develop budget are highlighted and supported by various descriptive means (tables, histograms, trend analyses, bar and pie charts, etc). Priorities are explicitly stated and alternatives analyzed	The budget becomes a document expressing the goals and objectives of the governorate and communicates them using advanced means
Institutionalization	None	Complete	The Central Agency for Organization and Administration has approved the inclusion of the OMEDs in the structure of the urban governorates

6-10

1991

As the above table demonstrates, the impact of the OMED offices on the urban governorates provides a significant improvement in the capacity of a governorate to make rational long-term financial decisions.

6.3 INSTITUTIONALIZATION

Institutionalization of a component of LD II Urban occurs on two levels: 1) formal recognition by the Government of Egypt of the unit or function within the official organization structure; or 2) acceptance of the function or unit on an informal basis by the governorate management. In the case of 1), this represents the major criteria for success of a LD II Urban component; the Government of Egypt sees sufficient value in the unit or function to officially include it as part of the governorate organizational structure. In the case of 2), it represents success in the sense that the function or unit has demonstrated its value to the management of a governorate. In this case, many of the technical skills transferred and technology implemented will continue to be of material value to the governorate regardless of formal recognition.

6.3.1 Organization/Management

Both formally and informally, the OMED component of LD II Urban has been effectively institutionalized. On a formal basis, the governors of the urban governorates approved a recommendation to petition the Central Agency of Organization and Administration (CAOA) to include the OMEDs in the organizational structure of the governorates. The initial study submitted to the CAOA, regarding this reorganization, was denied. However, a revised study was submitted to the CAOA on April 14, 1992 and was subsequently approved on May 18, 1992. In the process, the CAOA changed the name of the OMED to the "Office of Analysis and Financial Development."

As of the writing of this report, some procedural requirements were yet to be completed regarding the formal institutionalization of the Office. Job descriptions for the staff of this new Office will have to be completed and each governorate will then need to submit a request to the CAOA for specific positions to be included in a subsequent budget. These procedural requirements should be completed by the end of LD II Urban.

Prior to the formal recognition by the CAOA, the OMED component had achieved substantial informal institutionalization. In three governorates (Alexandria, Port Said and Giza), the OMED Directors were members of the governorate team that negotiated the budget with the Ministry of Local Administration. In two other governorates, the OMEDs were heavily involved in either substantive financial analysis (Qaliubia) or were to some degree responsible for the preparation of financial information that was subsequently presented and used by a governor (Suez). In the case of Cairo, little activity comparable to that found in the other five was achieved.

6.3.2 Capacity Building/Resource Mobilization

The OMED component initiated capacity building and resource mobilization activities which included:

- o **Developing a plan to increase local resource mobilization through sustainable autonomy.**

The current structure of government in Egypt does not motivate local government to improve current or provide new governmental services with locally generated funds. In fact, local governments in Egypt have little or no authority and motivation to substantially improve local revenues. The TAC Team was requested to review the following areas of potential change:

- Revenue Capacity and Related Authority;
- Intergovernmental Grants;
- Expenditure Efficiency/Control;
- Public Participation in Program Expenditure Decisions by Popular Councils;
- Policy Dialogue.

The outcome of this effort was a report entitled "**Local Resource Management: Pilot Project**" which outlined the route necessary to implement substantive change in manner and style of local government.

This general issue was addressed again in a subsequent report entitled "**Re-cap of Local Resource Report**", which highlighted those findings that required a policy change by the central government versus those findings that could be initiated independently of central government policy changes. The primary finding was that substantial gains in revenue collections could be achieved through automating manual systems. This resulted in increased priority being placed on three systems under development by the Management Information Systems (MIS) component of LD II Urban (Qaliubia Water Billing System, Giza Cemetery Plot System and the Port Said Manakh District Housing Revenue System), and also work being initiated by MIS on a new system (Giza Agricultural Lands, Building and Cleaning Tax System). These systems will lead to substantial improvement in efficient revenue collections for these items.

- o **Determining the feasibility and developing an implementation plan for automating the budget monitoring activities of a governorate.**

The purpose of this activity was to first determine if it was feasible to automate the manual systems that the OMEDs would rely on to monitor their budgets. Then, if it was feasible, develop a plan to automate these systems. This effort was completed by the publication of two reports:

- **Budget Monitoring System: Feasibility Study;** and
- **Budget Monitoring System: Phase I.**

The outcome of these two reports was a blue print of an automated system that will provide the OMEDs with the data necessary to successfully monitor the implementation of their budgets and serve as data for analyses of upcoming budgets.

6.3.3 Sustainability

In an attempt to measure sustainability of the OMEDs in the governorates, ten objective criteria were developed. These tests indicated the extent to which an OMED had undertaken

the tasks of LD II Urban's technical assistance and how well these offices have imbedded themselves in the governorate organization.

1. Is there a governor's decree formally establishing the OMED in the governorate?
2. Has the CAO A established an official organization with governorate positions for the OMED in the governorate?
3. Has the governor submitted a memorandum to CAO A establishing the permanent office and payroll positions?
4. Is the OMED in the governorate fully staffed?
5. Is the OMED Director also the Director of Financial Affairs, and to what degree does he influence the governorate financial directorate?
6. Did the governorate OMED successfully complete a 1989-1990 current budget?
7. Did the governorate OMED successfully complete a 1990-1991 current budget?
8. Did the governorate OMED successfully complete a 1991-92 current budget?
9. Has the OMED Director participated in the annual budget negotiations with the Ministry of Local Administration?
10. Are the OMED computer operators capable enough to maintain their automated systems without technical assistance?

A value of one through five was assigned to each sustainability indicator, or test, based on an assessment scale (shown in Table 6.6). By adding up the values from each test, a total score was assigned which provided a comparative measure of sustainability of the OMEDs within the governorates. This is shown in Tables 6.5 and 6.6.

6.3.4 Major Issues

Governorate OMEDs now receive the LD II Urban annual maintenance plan for incorporation in the annual budget of the governorates. Attempts to develop governorate-wide annual maintenance plans have been frustrated by (i) a lack of information on what assets are held by the governorate and (ii) an estimate of their value. Efforts to develop governorate-wide annual maintenance plans will continue in some governorates.

Official recognition of the OMED-developed current budgets is in no way assured in the governorates despite the formal establishment of the OMEDs in the organization chart. At present, Egyptian law stipulates that the Ministry of Finance will develop final budgets for the governorates. This is done through coordination of draft budgets with the Financial Affairs Department, Personnel Department, and the Financial Directorate of each governorate. In those governorates where the Director of the new OMED is also the Director of the Financial Affairs Department, OMED budgetary efficiency and accuracy may effect the quality of the draft submitted to the Ministry of Finance. In the end, however, the Ministry revises this draft into a final budget for the governorate. Because of the legal restriction, the decentralization of budget authority to the governorates (OMED's primary task) remains partial at best. This condition will prevail no matter how well the OMED institution survives.

Table 6.5

OMED - SUSTAINABILITY TESTS TOTAL SCORES

INDICATOR	ALEX.	CAIRO	GIZA	PORT SAID	QALIUBIA	SUEZ	AVERAGE
1	5	5	5	5	5	5	5
2	4	4	4	4	4	4	4
3	5	0	0	5	5	0	2.5
4	5	2	4	5	5	4	4.3
5	5	1	3	5	5	3	3.7
6	5	0	5	0	5	5	3.3
7	5	0	5	0	5	0	2.5
8	5	0	5	5	5	5	4.2
9	5	0	5	5	2	5	3.3
10	4	2	3	5	5	4	3.8

TOTAL	48	14	39	39	46	35	37
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SUSTAINABILITY PERCENTAGE:	96%	28%	78%	78%	92%	70%	73%
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Table 6.6

OMED SUSTAINABILITY INDICATORS (Tests)

		Scored Points
1.	Is there a governor's decree formally establishing the OMED in the governorate?	
•	No	0
•	Planned in principle	1
•	Drafted	2
•	Ready for Signature	3
•	Approved by General Secretary	4
•	Approved by Governor	5
2.	Has the CAO A established an official organization with governorate positions for the OMED in the governorate?	
•	No	0
•	Planned in principle	1
•	Drafted	2
•	Submitted for Signature	3
•	Approved in principle	4
•	Signed by CAO A Director	5
3.	Has the governor submitted a memorandum to CAO A establishing the permanent office and payroll positions?	
•	No	0
•	Planned in principle	1
•	Drafted	2
•	Ready for Signature	3
•	Signed by Governor	4
•	Forwarded to CAO A	5
4.	Is the OMED in the governorate fully staffed?	
•	No staff	0
•	Director and <3 part time staff	1
•	Director and >3 part time staff	2
•	Director and <3 full time	3
•	Director and >3 full time staff	4
•	Full time director and full time staff	5
5.	Is the OMED Director also the Director of Financial Affairs, and/or to what degree does he influence the governorate financial directorate?	
•	No influence or connection	0
•	Not the financial director with limited influence	1
•	Not the financial director with moderate influence	2
•	Not the financial director with substantial influence	3
•	Financial director with qualified acceptance of OMED	4
•	Financial director with full acceptance of OMED	5

Table 6.6 (Cont'd)

OMED SUSTAINABILITY INDICATORS (Tests)

	Scored Points
6. Did the governorate OMED successfully complete a 1989-1990 current budget?	
• No	0
• Planned in principle	1
• Drafted	2
• Draft reviewed by financial directorate	3
• Approved by General Secretary	4
• Approved by Governor	5
7. Did the governorate OMED successfully complete a 1990-1991 current budget?	
• No	0
• Planned in principle	1
• Drafted	2
• Draft reviewed by financial directorate	3
• Approved by General Secretary	4
• Approved by Governor	5
8. Did the governorate OMED successfully complete a 1991-1992 current budget?	
• No	0
• Planned in principle	1
• Drafted	2
• Draft reviewed by financial directorate	3
• Approved by General Secretary	4
• Approved by Governor	5
9. Has the OMED Director participated in the annual budget negotiations with the Ministry of Local Administration?	
• No participation	0
• Limited indirect participation	1
• Substantial indirect participation	2
• Limited direct participation	3
• Substantial direct participation	4
• OMED director led the negotiations	5
10. Are the OMED computer operators capable enough to maintain their automated systems without technical assistance?	
• Poor computer skills	0
• Some computer skills but badly in need of technical assistance	1
• Some computer skills but in need of moderate technical assistance	2
• Good computer skills with little need for technical assistance	3
• Good computer skills with no immediate need for technical assistance	4
• Strong computer skills, able to modify and maintain their systems easily	5

6.4 RECOMMENDATIONS

6.4.1 Technical Assistance

The OMED component's effort has made solid gains in improving the administrative capacity of the urban governorates in the critical area of financial management. However, there is continued need for additional technical assistance.

The Office of Analysis and Financial Development, formally called OMED, is now in the process of becoming an administrative reality. Additional assistance to this unit will be necessary to fully develop its administrative capacity as it moves from a shadow office with seconded personnel to a fully functional independent financial analysis unit. In addition, the Ministries of Local Administration, Finance, and Planning will need to be acquainted with the abilities of the OMEDs and the advantages of using the OMED techniques and technology. It will also be necessary to have administrative oversight to ensure that the OMED concept does become a reality.

6.4.2 Implement the Budget Monitoring System

Without timely and accurate financial data, the Office of Analysis and Financial Development will be severely constrained in the level of professional financial analysis it can achieve. It will be essential for the success of this unit that a system like the **Budget Monitoring System** be implemented in order for it to achieve the level of analysis of which it is capable. In addition, with the move to a decentralized block grant, a higher level of accountability will ultimately be expected of local governmental units. Without a **Budget Monitoring System**, these local units will not be able to produce accurate and reliable data regarding the use of the block grant funds.



GOVERNORS LAND MANAGEMENT CONFERENCE - GIZA



LMU ORIENTATION WORKSHOP - PORT SAID



LMU STAFF - SUEZ GOVERNORATE



LMU STAFF - PORT SAID GOVERNORATE

Section 7

LAND MANAGEMENT UNITS (LMU)

7. LAND MANAGEMENT UNIT (LMU)

7.1 TARGETS AND RESULTS

The LD II Urban Land Management Unit (LMU) component was initiated to improve and expand the capacity of local government in Egypt to plan, implement, maintain and finance improved municipal services as a part of new land development and upgrading projects using governorate-controlled land or property as an asset. Establishing Land Management Unit offices with staff and equipment resources to administer and monitor project activities in the governorates and districts was an initial first step of this component. The LMU component tasks therefore included the following:

- o Establish Land Management Unit (LMU) capacities in the urban governorates capable of sustaining themselves both financially and administratively;
- o Through identification of appropriate upgrading and new land development projects, achieve a high level of cost recovery and income generation using governorate- controlled land or property as an asset;
- o Promote appropriate physical planning and rational land development including implementation of projects which benefit the urban poor both directly and indirectly.

The LMU component was not designed to interfere with or to reorganize existing physical planning or land control organizations within the six urban governorates. It was designed to complement such organizations where they existed. Training of "core" staff to improve skills regarding project development, implementation, and monitoring was an additional task of the component.

Unlike other project engineering/planning LD II Urban components, the LMU component was a relatively new and modest effort. It had not had a history of LD II Urban Investment Plan or other start-up funding participation. Only minimal amounts of LD II Urban Investment Plan funds were available to mobilize project construction activity and therefore to allow the expediting of the revenue generating components of projects. In addition, only modest amounts of financial resources for furnishing equipment support to LMU offices were available.

7.1.1 Level of Technical Assistance

Contractor Personmonths

During the life of LD II Urban, 274 professional personmonths and 47 non-professional personmonths were expended.

Training

Trainees received a total of 2,070 days of instruction at a cost of LE 42,353.

7.1.2 Project Identification

Identification of viable land management demonstration projects, including appropriate "action" plans, required the collection of available planning and demographic data, including land values

and uses, extent of serviced areas, and confirmation of governorate-controlled land status for pilot project study areas. The Technical Assistance Contractor (TAC) assisted in this process by helping to collect official Central Agency for Population, Mobilization, and Statistics (CAPMAS) data. This assistance also included structuring detailed surveys of potential beneficiaries or informal squatter inhabitants regarding desired standards, affordability and priority issues sensitive to cost recovery related to urban service improvements. Cost recovery included consideration of exchanging land title on encroached-upon governorate land in exchange for payment of such improvements. This was a typical option in most projects involving the upgrading of deficient services in low income urban resident squatter settlements. The basic strategy for collecting these data relied on a priority emphasis being placed on strategic project study areas with governorate-wide data collection as an ongoing day-to-day process. The project data provided the basis for a more comprehensive information system. Governorate-wide information data collection activity should ultimately be a function of physical planning departments when these are established in governorates. Physical planning departments in governorates would be responsible for developing governorate-wide structural or master land use plans.

Several project planning and development guideline documents were produced as reference resources to assist in this process. These included:

- o Planning Information Guidelines;
- o Project Development Guidelines;
- o Office Operating Guidelines.

Continued emphasis is needed to update maps for the urban areas. In particular, access to updated cadastral and land use maps, being produced through another USAID-sponsored program by the Egyptian Survey Authority, is necessary. LD II Urban did not have the financial or approved technical assistance resources to implement a comprehensive computerized cadastral and land banking information system. The strategy of the Land Management Unit component, as stated in LD II Urban Work Plans, was to assist in the more realistic and achievable task of identifying and implementing selected demonstration land development projects.

Results All urban governorates initiated collection of project planning and land development data. Each office was responsible for accuracy and timeliness of data collection efforts to meet their own requirements and priorities. Five urban governorates collected detailed small area data to properly investigate pilot projects. They are continuing to collect planning and development information to identify future LMU projects for approval of senior management. Work plan targets regarding the identification of pilot projects through appropriate data collection efforts were achieved in all participating governorates. In Alexandria, the identified LMU pilot project was transferred to a district for implementation.

Profiles, by governorate, highlighting achievements are presented in Appendix 12.

7.1.3 Development Tasks

7.1.3.1 Approval of Land Development, Local Resource Mobilization Strategies and Pilot Projects

All governorates worked on the identification of pilot project design and local resource mobilization concepts. Assistance was provided to the participating governorates of

Port Said, Suez, Giza, Qaliubia and Cairo to develop investigation reports, and presentations were given to governors on identified projects. Each governorate's LMU office staff were responsible for project development analyses and presentations of local resource mobilization options that involved consideration of cost-recovery or income generation approaches for approval by senior management - including Popular and Executive Councils.

Relations with governorate and district Popular Councils as elected representatives of the community have been fruitful in terms of obtaining formal approval for projects. Where slum upgrading projects are taking place, LMU offices have taken care not only to inform citizens but to solicit their active support. (Examples included, Kafr El Arab El Maamal in Suez, Manshiat El Bakary in Giza, and the El Kabouti and El Arab District projects in Port Said).

Results Table 7.1 summarizes the important characteristics of demonstration LMU projects by governorate. Cost recovery and income generation local resource mobilization strategies, by managing governorate-controlled land and property in a comprehensive project development program, were successfully understood and appreciated by senior GOE management. LMU office staff, when given the opportunity to prove themselves, achieved a level of credibility through appropriate presentations to their governors and Popular Councils. Five of the six urban governorates identified pilot land development and upgrading projects and received approval to implement local resource mobilization strategies in their projects from Popular Councils and other government senior management officials. Work plan targets and achievements in regard to approvals of projects and their local resource mobilization strategies were successfully completed in all participating governorates.

7.1.3.2 Project Implementation

Assistance was provided to those governorates successful in obtaining timely start-up funds for projects to initiate tender and contracting award procedures for initial phase project construction activity as defined in investigation report implementation plans. Establishment of field offices in large upgrading project areas was also encouraged, where appropriate, to begin the revenue generating portion of the projects. Those governorates successful in receiving timely start-up funding included Port Said, Suez and Giza. However, only Port Said and Giza were successful in obtaining modest LD II Urban Investment Plan financial resources to mobilize project construction. Suez relied on funds collected from targeted beneficiaries and from the central government to start water and sewer services in the Kafr El Arab El Maamal upgrading project. Cairo and Qaliubia originally prioritized their LMU projects in the second tranche (disbursement) of the LD II Urban Investment Program for 1991, and consequently they had to pursue other project activities and financing options because of the eventual non-availability of these funds.

Results Table 7.2 indicates the status of all LMU pilot projects and other project activities in each of the governorates at the time of writing this Final Report. Some "on-the-ground" (physical) activity has occurred in Giza, Port Said, and Suez by clearing sites, providing previously approved services, or demolishing illegal structures to provide rational street access to upgrade urban settlement project study areas.

The work plan recognized that progress in this area would be consistent with an ability to locate start-up funds to mobilize project construction activity and

Table 7.1

DEMONSTRATION PROJECT CHARACTERISTICS
(As of End of August, 1992)

ITEM DESCRIPTION	GOVERNORATE					
	GIZA	PORT SAID	SUEZ	QALIUBIA (o)	CAIRO (o)	
o Project Name	Manshiat El Bakary	El Arab District	Kafr El Arab	El Sharkawia	Kattamia	El Zawia El Hamra
o District Location	El Haram	El Arab	Ataka	Shoubra El Kheima	El Maadi	El Waily
o Total Project Area (Feddans)	115.0	112.5	141.0	6.3	750 (5)	11 (5)
o Type of Project and Initial Impact Area (Feddans)	Upgrading 34 (1)	Upgrading 9.23	Upgrading 69.0	Upgrading 6.3	New Lds.Dev 35.0	Relocation 11
o Targeted Beneficiaries (Low to Middle Income Residents)	36,428	2,500	(3) 22,000	2,000	12,000	4,000
o (A) Total Project Costs (LE)	6,508,700	12,900,000	(3) 9,765,000	1,000,000	3,067,000	3,508,000
o Implementation Period	6 Years(1)	4 Years	6 Years	3 Years	5 Years	5 Years
o Method of Cost Recovery	Change Tit. Lnd.Sales Upg. Fees Mrk.Revn.	Lnd.Sales Upgrading Fees	Change Tit. Lnd.Sales Upgrading Fees	Lnd.Sales Upgrading Fees	Land Sales	Land Sales
o LD-II Urban Contrib.(LE) Form#1	153,300	239,700(2)	Not Req.	Uncertain	Uncertain	Uncertain
o Other Contributions (LE)	Under Review	105,000	700,000(3)	None (4)	None (4)	None
o (B) Expected net revenues by end of 1992	Under Review	4,019,400	1,907,000	1,150,000 (Delayed (Dec.date	4,750,000 (Delayed uncertain)	9,771.200 at End of 5 years
o (C) Expected total net revenue (*) generation (LE) at end of proj.implementation period	12,677,600	18,700,603	(3) 17,321,000	3,000,000	8,125,000	13,279.400
o (D) Total Proj.Costs as a % of gross revenues (A/C) = D	51%	69%	56%	33%	38%	26%
o Target Date For On-The-Ground Activity	Already(1) Initiated	Already Initiated	Already Initiated	(5)	(5)	Uncertain

- (1) Form #1's adjusted for reduced allocation to LE 153,300 (reduced from LE 240,000)
The expected implementation period for the whole project (the three study areas) is six years.
It is expected that the construction first phase project improvements will be finished within
12 months or estimated by end of December, 1992. Previous construction of projects serving the
study area underway.
- (2) LE 239,700 includes 35,000 for a car plus 10% for contingency project improvements.
- (3) Existing population is estimated at 15,000. Projected population on-site is estimated at 22,000
by year 2010. The total revenue will be about LE 17,321 after 12 years based on specific land release
terms, LE 700,000 collected from the inhabitants already.
- (4) Other funding resources are under study to start implementation activities.
- (5) *Kattamia: Total gross area of the project is 1600 feddans. 750 feddans represents a net area balance.
*El. Zawia El Hamra: (GOE) LMU staff expect to present a feasibility investigation report on relocating
CCBA facilities as an alternate LMU pilot project to the Governor at end of September, 1992.
- (*) Expected net revenue (Item B) by December, 1992 equals expected gross revenues less total project costs
expected by that time.
- (o) Qaliubia and Cairo attempted to program, start-up funds through LD II Urban but, because of the uncertainty
surrounding fund availability were not successful. Alternate project financing continues to be explored on
Kattamia project.

Source:NSA

Table 7.2
LMU PROJECT ACTIVITIES
AS OF AUGUST, 1992

	Establish LMU Office	Project Identification				District Approval Process				Funding Status			Revenue Source	Project Construction				
		Project Identified	Feasib. Study	board of Directors	District Governorate Council	Executive Council	Governor Approval	Land Allocation	Funding Status			Revolving Fund #11		Contract Documents	Contract Award	Start Date		
									Government	LD II	Other							
PORT SAID																		
El Arab	C	C	C	C	C	C	C	C	C	Y	Y	Y	Auction	C	C	Sep-92	Jul-91	
El Kabous	C	C	C	C	C	C	C	C	C	Y	N	Y		C	C		1992	
El Amal (Touristic Center)	C																	
Southern villages	C																	
SUEZ																		
Kahr Azah El Maamal	C	C	C	C	C	C	C	C	C	Y	N		Hold Fees	C		Sep-92	Sep-92	Feb-91
El Horra	C	C	C	C	C	C	C	C	C	Y	N		Auction					
El Khatib & Hisha	C	C	U	U	U	U	U	U	U			Y	Auction					
El Maghraby	C	C	U	U	U	U	U	U	U				Auction					
Slaughter House Relocation	C	C	U	U	U	U	U	U	U				Auction					
Central Police Relocation	C	C	U	U	U	U	U	U	U				Auction					
South national Garden	C	C	U	U	U	U	U	U	U				Auction					
Land Sale Auction	C	C	C	C	C	C	C	C	C									
GIZA																		
Minshaat El Bakary	C	C	C	C	C	C	C	C	C	Y	Y		Land Sale	U	U	U	Aug-92	
Saket Mekky	C	U	U															
Dayer El Nahla	C	U	U															
CAIRO																		
Kattamia	C	C	C	C	N/A	N/A	C	C	C	U			Auction	P	C	P	P	
El Zawia El Hamra Reloc.	C	C	C	C	N/A	N/A	U	U	U	Y			Auction	P	U	U	U	
El Maadi Land Development	C	U	U															
El Tourgoman down Town	C	U	U															
El Madabekh - Torah	C	U	U															
QUALIUBIA																		
El Sharkawa	C	C	C				P	P	P	U	Y	U	Land Sale	P	P	P	P	
Minshaat El Horreya	C	C	C															
El Heggazi	C	C	C															
New Indus area Khanka	C	U	U															
ALEXANDRIA																		
El Mansheya El Gidda	C	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	

Y - YES	N/A - Not Applicable	P - Pending Action
N - No	U - Underway	C - Complete

Remarks

CAIRO
Kattamia Other project financing options being explored with investment banks (privatization).
Zawia El Hamra Relocation Project economic physical studies underway.
El Maadi Land Development pending studies under consideration.

QUALIUBIA
Sharkawa Former governor approved pilot project. Presentation to new governor pending.
Minshaat El Horreya No project financing available at present time.
El Heggazi No project financing available at present time.
New Industrial area Khanka Relocation from the industrial area in Shoubra El Khema to a new area in Khanka.

ALEXANDRIA
El Mansheya El Gidda West district handling the project.

PORT SAID
El Arab Site preparation underway. Site services construction by mid 1992 using LD II Urban funds.
El Kabout 1st phase complete. 2nd phase underway.

SUEZ
Kahr Arab El Maamal Water tap facilities repaired. Site access adjustments underway.
Revenue generation begun 700,000 LE. Sewerage pump station construction end 1992.

GIZA
Minshaat El Bakary Pilot project builds on main sewerage and water lines under construction.
Does not rely on these to begin initial revenue generation.

permit revenue generation to occur through land sale auctions or the land title process. What is significant in terms of achievements is that additional projects have been identified in all participating governorates.

7.1.3.3 Consolidation of LMU Authority to Administer Projects

Assistance was provided to LMU office staff for the review and development of acceptable and workable procedures used on similar projects such as in Ismailia and other governorates. These procedures included formats for land allocation orders or decrees, land release conditions, and project account frameworks to ensure financial independence and allow local resource income generated from projects to be dedicated towards future local project activities.

Participating governorates which defined projects at the time of writing the Final Report, included Giza, Qaliubia, Port Said, Suez and Cairo. As a result of the LMU Organization Administrative Procedures Workshop, and a repetition late in 1991 of the Orientation Workshop originally held in 1991, the primary mechanism allowing revenue generation on projects was the land allocation decree or a governor's order or directive which dedicates management of certain governorate lands within defined study areas to the LMU. (This was also known as a "project decree").

The establishment of a revolving fund account to monitor project costs and revenues was another procedure consolidating LMU office powers to implement projects and was generally accepted as a concept. Actual implementation progress regarding these concepts varied, however, in each participating governorate and depended upon understandings reached with governorate legal/financial directors regarding flexible interpretation of current Egyptian law.

7.1.4 Automation of Information Systems

Automation of certain LMU activities and functions proved to be very popular. Because of modest technical and financial resources, an initial limited step-by-step implementation process was adopted. Emphasis was placed on implementing simple systems which could be quickly understood to reinforce project identification, development, and implementation. More advanced geographic information systems have been recognized as having wide ranging applications including the effective management and analysis of GOE land resources through computerization to more effectively organize, update and monitor the status of such resources.

A computerized Land Management Information System was developed, based on planning information guidelines previously prepared, and was installed in all governorates. This system emphasized the assembly of land market supply-and-demand statistical characteristics including demographic data to properly investigate projects and assess project impacts. It was based upon a series of dBASE III Plus files addressing land values, extent of services, population trends and forecast data. LMU office staff were responsible for timely data collection and accuracy. Other applications were developed by some governorates on their own initiative to address an inventory and status of encroached upon governorate-controlled land resources particularly in project study areas.

Results Computer hardware/software equipment was installed in LMU offices in five governorates thereby exceeding work plan expectations. One each of the following sets of computer hardware equipment and software was typically installed at each LMU office.

Hardware:

- Everex "80386" Computer
- Everex Monitor 14"
- Epson FX 1050 Printer
- Elco Stabilizer
- Genius Mouse

Software:

- dBASE III Plus
- Lotus 1-2-3
- Formtool
- Nafitha (Arabization)

The following custom-built software systems were installed in all governorates (Suez was included in the demobilization plan for LD II Urban's computer hardware/software. Procured computer equipment was installed in Suez in August, 1992.):

- Land Management Information System
- Spreadsheets for one-year and five-year office budgets
- Project financial pro-forma spreadsheets
- Other applications developed by LMU staff

In Port Said the following pilot project computer hardware and software was provided:

- MapInfo software
- Land Cad/Auto Cad Software
- A small digitizing tablet
- A small ink plotter

The LD II Urban feasibility studies indicated that geographic information systems technology could not be implemented under the current LD II Urban prior to mid-1992. This technology could be implemented in the future for selected pilot governorates if properly financed to include procurement of equipment and provision of training in addition to allowing more opportunity to effectively implement such systems.

7.15 Revenue Generation

At the present time, revenues generated from land sales consist of recovering costs of providing infrastructure services including administration costs, plus the original cost of land. Revenues from the original cost must go back to the Economic Housing Fund. A somewhat different but similar procedure is permitted under the Services Fund. Each governorate has chosen one of these funds to set up project accounts. Clarification was pursued with (Government of Egypt) legal authorities in the governorates, as to whether project revenues generated from original land values prior to provision of infrastructure services could be retained under the Economic Housing Fund or the Services Fund for demonstration project related activities, which would permit an even better net revenue balance for projects. Some governorates accepted this interpretation while others preferred to take a more conservative approach and insisted that all funds must be returned to central government accounts. There was considerable variation in

understandings regarding the legal context of project accounts including financial independence, but those governorates well into project implementation seem to have worked out verbal agreements and understandings with their counterparts in the legal/financial departments regarding dedication of project revenues and financial independence. Unofficial contact with central government legal authorities in the Ministry of Finance indicated retention of locally generated project revenues was consistent with the intent of current Egyptian law and therefore was appropriate.

Results Table 7.3 summarizes the extent of land allocation decisions by governor directives consolidating LMU authority to implement and administer pilot projects. In all five participating governorates (the exception was Alexandria), this approval was granted.

7.1.6 Training in Support of LMU Offices

The formalized in-country and overseas training of "core" LMU office staff including directors was a critical element in their achieving credibility and success in pilot project presentations to senior management. The training also helped governorate LMU office staff to coordinate LMU activities with other government organizations in addition to explaining the purpose of LMU operations and plans in their respective governorates. Formalized training was instrumental in achieving momentum towards promoting land management proposals. It was critical in transferring the skills and technical knowledge necessary for the LMU staff to be successful.

The content of LMU training included orientation and workshop seminars and formalized courses on land management techniques and approaches used in Egypt and elsewhere. These training sessions focused on land development project implementation and local resource mobilization strategies. Basic introductory training was provided to orient LMU office staff to the intent and concept of the land management program and to review lessons learned from past project implementation case study experiences in Egypt. Other formalized in-country training courses provided a working knowledge of computer software and hardware such as use of dBASE III Plus, Lotus 1-2-3, and other software to manipulate and collect land information, complete project financial plans, and develop office budgets more effectively. Guideline documents prepared by the TAC were reviewed and provided to participants in a workshop addressing office organization and administrative procedures.

A two-day Land Management Executive Seminar held in Giza for all LMU office staff, their Governors, and Secretaries General, including the General Organization of Physical Planning (GOPP), reviewed project development and implementation progress. This seminar was instrumental in achieving credibility and understanding of the LMU component through multi-governorate information sharing. The seminar, moreover, was successful in creating a kind of competition among governorates. It strengthened the process of appreciating the usefulness of the LMU offices and comprehending the LD II Urban Land Management Unit component intentions and concepts.

Repetition of available NUS training courses in feasibility analysis and project monitoring and management were completed for governorate staff who had approved pilot land development projects. These particular courses were updated and actual projects used so that applications and techniques put forward in the training would be more meaningful. All formalized in-country training was reinforced by informal on-the-job technical assistance to properly investigate, perform feasibility analyses and present projects to governors.

Both the in-country and on-the-job technical assistance culminated in overseas training at Michigan State University in mid-1990 and again in late 1991 with the Turkey Study Tour

Table 7.3

PROJECT LAND ALLOCATION DECREES, GOVERNORS' ORDERS, AND APPROVALS

Governorate	Decree/Order	Date	Description/Status	Pilot Project Name
GIZA	873	March, 1992	Land Allocation Decree	Manshiat El Bakary Upgrading Project
PORT SAID	Approval of Executive Memorandum to Land Allocation Committee	Approval Granted February, 1991 to Land Allocation Committee	Verbal Approval From Former Governor	El Arab District Upgrading Project
SUEZ	Governor Order	September, 1991	Land Allocation Order	Arab El Maamal Upgrading Project
CAIRO	579	December, 1990	Kattamia Land Allocation Decree	Kattamia Project (A New Project is being considered for El Zawia El Hamra which is under study).
OALIUBIA	Former governor verbally approved El Sharkawia project.	Approval Granted late, 1991	LJU staff have not succeeded in meeting new governor to present El - Sharkawia project	El Sharkawia Project.
ALEXANDRIA	Pending	Pending	Pending	Pending

Overseas Program. The Michigan State University training program provided key staff and LMU office directors with basic planning and housing program techniques over a four-week period. Key LMU office staff attended a Turkey Study Tour late in 1991 to review projects in Ankara and Istanbul, Turkey and discuss international project experience regarding similar land management information systems and project activities.

Results Appendix 15 summarizes the status of land management training including training resource material provided to land management staff participants. Courses and seminars/workshops included the following:

- o Orientation Workshop, (Completed in 1990 and repeated late in 1991);
- o Introduction to Computer Hardware/Software (dBASE III Plus and Lotus 1-2-3, etc.), (1990 and repeated in 1991);
- o Michigan State University Overseas Training Program, 1990;
- o Executive Seminar, February, 1991;
- o Organization/Administrative Procedures Workshop, July 1991;
- o Turkey Study Tour, 1991;
- o Feasibility Analysis Training Course, February, 1992;
- o Symposium on "Computers in Practice - Implementation in Architecture and Urban Planning", sponsored by Ain Shams University, March, 1992;
- o Project Monitoring and Management Training Course, June, 1992;
- o Periodic Director's Work Group Meetings;
- o Presentations to Governors of pilot projects by LMU office staff.

Work plan targets regarding this effort were achieved in all participating governorates. A measure of the success of this training can be interpreted in two ways. One is the additional responsibility LMU office staff received in their jobs and the other is the credibility achieved from presentations of pilot land development projects to senior management and governors. On both counts, particularly the latter, substantive success was achieved in those participating governorates that identified and presented their projects to senior management.

7.2 IMPACTS

7.2.1 Impact Indicators

This section attempts to measure some of the impacts of the Land Management Unit component over the life of LD II Urban. Some impacts can be defined quantitatively based on actual or anticipated achievements, while others are described in qualitative terms. In general the following impact areas are discussed:

Direct Impacts

- o Project beneficiaries and physical impacts.

Indirect Impacts

- o Training impacts;
- o Capacity building and governorate policy impacts;
- o Anticipated financial impacts and revenue generation.

Findings from an independent USAID sponsored LMU Assessment Team are summarized in Section 7.3.3.2 to highlight qualitative impacts of the Land Management Unit component.

7.2.2 Project Beneficiaries and Physical Impacts

All pilot projects identified and approved have had an impact in promoting appropriate physical planning and rational land development functions which will consequently benefit the low income urban residents. It is also anticipated that a high level of cost-recovery and income generation using governorate controlled land or property as an asset will provide a beneficial impact.

As a result of the recognition achieved by LMU office staff in project presentations to their governors, and secretaries general, most LMU offices became involved with other projects on a proactive basis. In at least five of the urban governorates this was confirmed by the number of additional projects considered by LMU offices. The USAID LMU Assessment Team commented qualitatively on project impact and implications as follows:

"Since most LMU projects in the governorates surveyed involve the upgrading of poor areas, these projects can definitely be said to be meeting directly the needs of the urban poor.

However, this can not be said for certain other possible projects. Because LMU projects must be financially feasible and the main source of revenue is the selling of serviced land, there is a potential contradiction, i.e., to gain maximum revenue, land must be developed for its highest use which, in most cases, means either commercial or high-end residential space. As long as the proceeds from these land sales ultimately go to improvements which serve the urban poor, this contradiction can be avoided."

Quantitatively the following statistics reflect specific impacts of the demonstration projects. In general, for five participating governorates the following summarized measurable project impact characteristics can be defined:

- o Upgrading projects range in initial project areas from slightly over 6 feddans to slightly over 140 feddans;

- o The new lands development project in Cairo governorate is 750 feddans, but an initial project area of 35 feddans is proposed to phase in implementation of site services and to begin revenue generation;
- o Targeted low-to middle-income urban residents for initial project impact areas is estimated to total slightly under 93,000 persons.

7.2.3 Training Impacts

Both in-country and overseas formalized training including on-the-job technical assistance have had a very favorable impact in achieving understanding of the Land Management Unit component concept including approvals of LMU projects.

Another impact of the training is the maintenance of government technical staff motivation and initiative in the absence of any "official" mechanisms for financial rewards for performance to supplement low government salaries. One of the most beneficial impacts of the Training component was that it brought LMU office staff from all governorates together on a regular basis for informal discussion, analysis of common problems and valuable cross-reinforcement. The impact value of such a forum was universally recognized as one of the key successes of the TAC Training effort.

7.2.4 Capacity Building and Governorate Policy Impacts

Capacity building indicators such as appointment and training of "core" staff; provision of adequate space and furnishings/equipment; integration in governorate organization structures; relations with the community, including private sector developers of individual project sites; training in analytical and planning techniques; skills in project development; and staff motivation and initiative were completed. Furthermore, these accomplishments had a favorable impact towards LMU institutionalization and towards achieving considerable momentum in all participating governorates which had pilot projects approved by their respective governors.

All governorates now have the administrative capacity, including competence of technical staff, to manage governorate land as a resource within project study areas, to identify appropriate "proactive" project activities working with physical planning departments, and, in general, to implement land development projects focusing on local resource mobilization strategies.

7.2.5 Financial Impacts and Revenue Generation

It is anticipated that the following financial impacts (including potential revenue generation on LMU demonstration projects) should be realized at the end of project implementation periods:

- o Total costs for five identified LMU demonstration projects were estimated at LE 29,074,800. LD II Urban contributions had been specified to be LE 2,232,700 of this amount, prior to the announced unavailability of the second tranche (disbursement) funds. An implementation period of one year was anticipated for LD II Urban cost components. Net revenue balances will be used to sustain project activities in later implementation years. (Implementation periods will extend beyond 1992; up to six years for some projects).

- o Total project revenues for all five projects is estimated to be slightly over LE 50,000,000. This represents an anticipated net revenue surplus after cost-recovery to participating governorates of slightly over LE 20,000,000 based on current planning proposal strategies.

7.3 INSTITUTIONALIZATION

7.3.1 Popular Councils/Governorate Policy Committees

Institutionalization of the LD II Urban Land Management Unit component was fostered by the acceptance of Land Management Unit (LMU) offices by governorate senior management as evidenced by executed decrees or governors orders, including an expansion of LMU office activities and responsibilities to other projects.

It is important to point out that this institutionalization process is continuing. The LMU concept was consistent with formal recognition by the central government of Egypt because of past efforts of the GOPP, under the Ministry of Housing, Reconstruction and New Communities. It was consistent with recommendations put forward in a 1984 document titled "Physical Planning Institutional Structure for Local Government", which called for a third level of administration under physical planning departments to include project implementation units consistent with the concept of Land Management Unit offices. The report was approved by the Central Agency for Organization and Administration (CAOA).

In regards to LMU office integration in governorate structures, a direct LMU office vertical link to the secretary general within the governorate "Dewan" (headquarters) was maintained in all governorates. Horizontally, each LMU office had developed its own formal and informal links with related units such as Amlak (responsible for government land properties), Physical Planning, Expropriation, Projects, Planning and Follow-up, Financial Departments and to the Housing Directorate. These linkages proved sufficient and should continue to evolve in parallel to the work load. LMU offices have established a Board of Directors or Policy Committee, headed by the secretary general, which is unique to specific project situations and designed to discuss project implementation issues and policy related to management of governorate land in project study areas. In addition, LMU offices have coordinated and presented their projects to the GOPP for review or advice and are currently in the process of appointing a specific liaison contact with the GOPP to maintain this relationship.

On an operational level there has also been improvement, although this remains largely sporadic. Since LMU offices have all forged good working relationships with the Amlak Departments (which are responsible for GOE lands), LMU offices are able to inject a better technical rationale for the recording, preservation, and release of these GOE lands. Suez Governorate has gone the furthest in this, partly because it has a large amount of GOE land, and partly because of the administrative integration of the LMU office with the Amlak Department.

LMU offices, in conjunction with Amlak Departments, have achieved remarkable results in managing project-related state lands but there is a need to improve overall inventories of GOE lands including appropriate maps and records. To improve in this area, it is important that this next step be taken as soon as possible, which is to gain access to the automated cadastral and land use mapping systems being produced nationally through the Egyptian Survey Authority and its USAID Technical Assistance Contractor, GEONIX. LD II Urban did not have the resources to implement a comprehensive governorate-wide land inventory and cadastral system

which could be computerized to effectively organize and monitor such resources. Since the USAID-sponsored program with the Egyptian Survey Authority is proceeding through GEONIX, it would seem only logical that such computerized mapping data be procured and installed on governorate computer systems as a next step.

7.3.2 Organization/Management

As anticipated in the Diagnostic Report, establishing LMU offices in each governorate relied ultimately on the political and administrative realities existing in each governorate. Project accounting procedures under the LMU component relied on the understanding of the existing legal framework to account for project revenues, costs, operating expenses, and the extent of retaining project-generated revenues for financing future project needs.

LMU office organizations were established both within and outside existing organizations. Each governorate elected different approaches to establishing LMU offices. Different understandings of project revolving fund accounts were also implemented. The LMU component was multi-disciplinary in nature involving project engineering, planning and design; financial and administrative systems; land management information systems; and finally, project implementation and monitoring skills. It also involved implementation of partial and integrated upgrading projects in development strategies for specific study areas.

GOPP was instrumental in encouraging governorates to establish physical planning offices. This was implemented with varying results. In some governorates, namely Giza and Qaliubia, planning activities were conducted at city and village levels with only nominal central participation, (under the Housing Directorate in Giza, and under the Dewan in Qaliubia). Alexandria and Suez had unique land utilization capabilities represented by independent agencies directly reporting to the Planning/Land Development Departments. As stated earlier, none of the governorates had a specific Land Management Unit organization to implement projects using governorate land as an asset to achieve cost-recovery and revenue generation as a project financing local resource mobilization objective. This was a new concept in Egypt and initially it was not easily understood or appreciated.

The following project financial resource mobilization options were either explored or are currently under consideration.

1. Project investment block grants through USAID sponsored LD II Urban; Port Said and Giza governorates pursued this option for the El Arab and Manshiat El Bakary projects respectively. Cairo and Qaliubia attempted to channel start-up funds through LD II Urban, but, because of the uncertainty surrounding fund availability, were not successful.
2. Collection of initial fees from informal or illegal targeted beneficiaries through a land title process which can be used to begin providing infrastructure services, (Suez Governorate used this option for the Kafr El Arab El Maamal upgrading project).
3. Borrowing funds from the Economic Housing or Services Fund depending on availability (Qaliubia is now considering this as an option for the El Sharkawia Canal upgrading project, and Cairo for the El Zawia El Hamra industrial relocation project).
4. Exploring project financial participation with outside private sector investor interests, (i.e., investment bankers and developers) such as is now being considered for the

Kattamia sites and the servicing of the new lands development project for Cairo governorate and other touristic projects in Suez.

7.3.3 Capacity Building/Resource Mobilization

7.3.3.1 Evolution and Momentum

Considerations for institutionalization are:

- o Institutionalization is a lengthy step-by-step process requiring flexible support;
- o Governorates must feel that they are benefitting and are in control rather than just an extension of the LMU office;
- o The interest and support of the governor must be engaged;
- o Projects should be realistic, feasible, and relatively simple to manage with implementation based on timely allocation of start-up funds or "seed" money.

In each of the six governorates considerable momentum was achieved through the establishment and commitment to LMU offices, with staff and equipment resources. This was accomplished despite some inertia within the governorates from other organizations or departments that either saw LMU offices as threats to their powers or as something inappropriate for local government.

7.3.3.2 Findings From USAID's Independent Assessment of LMU Component

In May and June of 1992, an independent USAID sponsored LMU Assessment Team evaluated overall institutionalization progress of the LMU component based on field assessments in four governorates (Port Said, Suez, Cairo, and Giza). They presented the following findings in their report submitted June 25, 1992:

- o "In four pilot LMUs reviewed, the institutionalization in terms of staffing, administrative structures, and integration in governorate operations has been good. So too has been skill development in terms of both formal and informal staff training, ability to carry out land studies and prepare projects, and ability to apply the concepts of rational land management. There also appears to have been an impact of LMU's on wider governorate policies towards local resource mobilization. However, in terms of actual project implementation, results to date are not so good, but it appears that the issue is more of one of delays caused by external factors than problems with LMU capacities."
- o "Furthermore, considerable momentum has been observed. At the present time it seems that all four LMUs reviewed here are on the move, taking on more responsibility and making their presence more strongly felt."
- o "In the opinion of the Assessment Team, it would be tragic were past efforts to go to waste and the current momentum checked. The LMUs can probably function at their present levels without any more outside technical support, but it will be hard for them to sustain the current momentum, expand to their full potential, and grasp the opportunities that lie before them."

- o "This is perhaps the crucial issue that of opportunities still to be grasped. Urban development in the larger towns in Egypt has suffered from the lack of mechanisms for rational land management and financial sustainability to support physical development plans, and at present LMUs are the only institutions that begin to provide this. They may only be a first and hesitant step, but unless more steps are taken vast opportunities could be lost."

In addition, the Assessment Team defined significant potential benefits of Land Management Unit offices to include the following:

- o "Providing basic needs for the many thousands of citizens living in random settlements and slums;"
- o "Providing new space, complete with infrastructure, for future housing, industrial, and other developments;"
- o "Giving governorates the technical capacity to attract investors and enter into joint ventures with other entities;"
- o "Allowing these developments to be financed out of the governorates' own financial resources and assets."

7.3.3.3 Land Management Unit Office Formulation

Over a varying period, beginning in August of 1988 and ending in 1989, most of the urban governorates appointed staff and received furnishings/equipment support, under LD II Urban, necessary to initiate operations. One governorate, Cairo, was the first to issue a decree for a LMU office but did not appoint staff until 1992 to begin effective operations. Decree amendments were executed over time for some governorates to consolidate or improve LMU office operations by new governors. Table 7.4 shows when each of the individual LMU offices were formed by governor's decree including amendments to these decrees by new governors. Appointment of a Land Management Board of Directors or Policy Committee was usually an integral part of this process. This policy group was headed either by the governor, himself, or in most cases the secretary general.

Staff were seconded from various governorate departments to the Land Management Unit offices on a part-time basis. In the case of the Suez LMU office, the assignments became effectively permanent because of a new governor's desire to consolidate the project implementation functions of the LMU office with the urban physical planning and Amlak functions under one department. Table 7.5 shows the original versus current complement of staff and source departments. With regards to technical staff, LMU offices have expanded from original decree allocations in most cases.

LMU office administrative structures, as they presently stand, vary considerably. All are located within the governorate "Dewan" and report to the secretary general. Giza and Port Said are small offices under larger departments as separate entities, whereas Suez and Cairo LMU offices have attained the status of general administrations, a higher level, which allows the LMU office director to assume a more prestigious position in the civil service.

Suez is the most comprehensive administratively, in that it is a general administration function which has brought together Physical Planning, Amlak, and Projects Departments under one umbrella. This may ultimately be a more effective approach

Table 7.4

LAND MANAGEMENT UNIT OFFICE DECREES AND GOVERNORS' ORDERS BY GOVERNORATE

Governorate	No. of Decree	Date (Month/Year)	Purpose	Remarks
GIZA	1. 456 & 467 2. 509 3. 711 4. 36	May, 1989 July, 1989 September, 1989 January, 1992	- Established Acct.& Board of Directors - Staff (Govern.Only) - Staff (Governorate & City LMU Staff) - Impl. Committee For Giza City	- Decree 467 sets up land price committee. Special account for land management. Board of Directors (Total 8 members). - Decree 711 includes an additional 5 employees from different depts.
* PORT SAID	1. 46 2. 2261 (552 & 1426)	February, 1989 September, 1989	- Board of Directors - LMU Staff	- 10 members including the Governor on Board of Directors. - 7 permanent plus 5 part time staff.
SUEZ	1. 41 2. 17 3. 35 4. 179	June, 1989 January, 1991 May, 1991 May, 1991	- Establishes LMU - Establishment of the Planning and Land Development Dept.	- Decree 41 was the initial decree to establish LMU organization (Article 2)& Board of directors (Article 5). - Decree 17 and subsequent later decrees consolidate LMU under larger department "umbrella."
* CAIRO	1. 238 2. 413 3. 924 4. 367	August, 1988 August, 1990 August, 1991 December, 1991	- Land Dev. Agency - LMU at Dept. Level - Staff Appointments - Board of Directors	- Staff from Housing Department to LMU department. - Board of Directors or Policy Committee established in later decrees.
QALIUDIA	1. 611 2. 653	October, 1989 October, 1989	- Establishes land management unit (LMU) including staff	- Staff from Governorate Planning and Roads Department. - Board of Directors/Policy Committee appointed Under Decree 611.
ALEXANDRIA	254	November, 1989	- Establishes LMU under Amlak depart.	- Staff appointments were made under this decree.

* Note:

The Port Said LMU was established as a "Technical Amana" and the Cairo LMU as a separate department not within existing organizational structures. All other LMU's in other governorates were organized as separate units under existing major departments.

Table 7.5

**GOVERNMENT LMU OFFICE DIRECTORS,
STAFF, AND SOURCE DEPARTMENTS**

SOURCE DEPARTMENT IN ORIGINAL GOVERNOR'S DECREE	GIZA (1)				PORT SAID (2)		WADI (3)		SALTUNA				CAIRO		ALEX. (4)		TOTAL	
	GOV.		CITY		Start	July/92	Start	July/92	GOV.		CITY		Start	July/92	Start	July/92	Start	July/92
	Start	July/92	Start	July/92					Start	July/92	Start	July/92						
LMU DIRECTORS																		
Governorate Diwan, City																		
- Land Protection Agency- Amak	1	1	1					1					1		1	1	4	3
- Projects Department				1				1										2
- Administration & Fin. Dept.							1											1
- General Dept. for Planning And Urban Development (L.R.U)										1			1					2
- Planning & Follow Up Dept.																		
- Urban Planning Dept.					1	1		1	1	1							3	2
LMU STAFF																		
- Planning & Urban Development General Dept.													6					6
- Urban Planning Department	1			2	3	5	7	2	1	2	1	2	1		5	5	19	18
- Land Protection Agency-Amak		3	2					3	1	1					8	8	14	12
- Warehouses Dept.								2										2
- Secretary Section & Public Relation		2			1	1		3	1	1	1	1		1	1	1	4	9
- Information System & Communication	1	1						2						4	4	5	7	
- Drafting						1		3			1	1						5
- Social Affairs					1													1
- Research & Feasible Studies & Investment			1					2										3
- Environment Section; Traffic, Survey		1						2	1	1								4
- Legal & Follow Up	1							1	1	1								2
- Financial Department								1										2
- Projects Department					1													1
- Districts				1			1						1					2
- Markets		1																1
- Housing Department													5					5
TOTAL	4	10	3	4	7	9	14	18	6	7	4	5	7	8	19	19	64	80

(1) There are 3 more employees, 2 surveyors and one secretary from El Amak Dept. (Part time). (Not included in the above list).

(2) Legal and finance departments support LMU activities indirectly.

(3) Decree No. 177/91 - Administrative order to organize the General Depts. of Planning and Urban Develop. 1) 3 sections belong directly to the General Dept. Secretary, Information, Drafting (with 10 employees) 2) The dept. belong to the General Depts. = 3 departments with 13 sections* Total 42 employees.

(4) The total number of LMU staff according to the land protection agency letter to TAC of 2/28/1990.

but actual replication in other governorates of this concept should be consistent with additional project responsibilities and a need to expand staff. The administrative nature of each LMU office reflects the internal needs and political realities of the governorate in which it has been formed. This formulation process was internal to each governorate, rather than something imposed from without. In Giza and Qaliubia, branches of the governorate LMU offices have been established at the city level. This arrangement could be an interesting model should the LMU office concept be applied to other rural governorates at a later date. The Alexandria LMU office is a functional unit under the State Land Protection Agency.

7.3.4 Sustainability

As pointed out previously, much has been achieved in regards to the capacity building and institutionalization aspects of the Land Management Unit component of LD II Urban. Financial independence, however, continues to meet with mixed results. This is because replication of administrative procedures done in successful governorates, such as Ismailia and others, was not always accepted by other governorate legal authorities who were reluctant to adopt a flexible understanding of the Egyptian Law governing project accounts and retention of locally generated project revenues to be put towards other LMU office project activities. The financial independence issue could have significant impact on the sustainability of LMU operations and activities in terms of realizing future opportunities to promote project cost-recovery and revenue generation. The USAID Assessment Team commented on the need for more flexibility consistent with the intent and purpose of existing Egyptian Laws as follows:

"The degree of flexibility allowed in interpretation varies from one governorate to the other, and ultimately depends on the commitment on the part of the governorate executive leadership (who are members of the board of directors of the fund) to the LMU concept. Thus the results of the debate are not by any means in yet, and much hinges on the continued momentum of LMU efforts and their ability to set precedents. This issue may not be as serious as it appears, and in Port Said and Suez at least formulae which satisfy all sides seem to have been found, but these have yet to be tested.

It should also be noted that this legal issue need not be a problem if the management of the Economic Housing Fund (which is in effect the governorate leadership) takes a dynamic point of view and employs part of the proceeds of the fund as roll-over investments in land development, which is definitely allowed by law. This will require a wider acceptance of the concept of local resource mobilization at the governorate level."

The measurable "Sustainability Indicators" for the LMU component of LD II Urban were defined as:

1. Is a Land Management Unit established?
2. Has LMU office space been allocated and furnishing/equipment provided?
3. Is there a LMU Policy Committee or Board of Directors, etc., responsible for establishing land management policy?

4. Have organization structures and staff responsibilities been coordinated or approved at other levels including central government?
5. Are staff collecting land planning and demographic data?
6. Have viable demonstration projects been identified?
7. Have automated project systems been installed?
8. Have Geographic Information Systems been installed?
9. Have LMU office staff been adequately trained?
10. Have LMU office staff capacity and motivation been addressed to sustain or increase performance effectiveness?
11. Are project and office accounting systems being used?
12. Has construction been initiated?
13. Are cost-recovery and income generation considerations favored?

A value of one through five was assigned to each sustainability indicator, or test, based on an assessment scale (shown in Table 7.7). By adding up the values from each test, a total score was assigned which provided a comparative measure of sustainability of LMU within the governorates. This is shown in Tables 7.6 and 7.7.

7.4 RECOMMENDATIONS

There is a continued need to consolidate the achievements or resolve issues to ensure sustainability of the LMU component of LD II Urban. These recommendations consider both the findings of an independent Assessment Team, the TAC and other local government sources. Recommendations of the TAC are summarized based on the document entitled: "Land Management Project Resource Mobilization Opportunities and Strategies". These recommendations essentially reinforce the findings of the independent USAID Assessment Team.

7.4.1 Recommendations of The Independent USAID Sponsored Assessment Team

This section addresses recommendations from an independent assessment of the Land Management Unit offices. The USAID sponsored Assessment Team had the opportunity to review in detail the activities in four of the six governorates and outline possible ways of capitalizing on the efforts made to date in establishing LMU offices. Recommendations are directed towards the Government of Egypt and specifically the leadership of the Ministry of Local Administration (MLA). To the extent that they propose forms of technical assistance and capital funding, the Government of Egypt could solicit financial support from any number of donor sources such as the World Bank, Social Development Fund, USAID, ... etc. Three levels of recommendations were outlined as follows:

- o Level One Recommendations should be considered a minimum level of support required to maintain current LMU momentum in the four LMU offices reviewed

TABLE 7.6

LMU - SUSTAINABILITY TESTS TOTAL SCORES

INDICATOR	ALEX.	CAIRO	GIZA	PORT SAID	QALIUBIA	SUEZ	AVERAGE
1	3	5	5	5	5	5	4.7
2	5	5	5	4	5	5	4.8
3	1	2	3	2	2	4	2.3
4	0	2	5	2	0	5	2.3
5	0	5	5	5	5	3	3.8
6	0	4	5	5	4	5	3.8
7	3	2	4	4	3	4	3.4
8	0	1	2	3	2	1	1.5
9	2	3	4	4	2	5	3.4
10	0	1	2	1	2	5	1.8
11	0	2	3	5	1	5	2.7
12	0	2	4	3	0	3	2
13	0	2	4	5	2	5	3

TOTAL: 14 36 51 48 33 55 39.5

SUSTAINABILITY

PERCENTAGE: 21% 55% 78% 74% 51% 85% 61%

* Note: The maximum point score for every indicator is 5 - The total is 65 points.

Table 7.7

LMU SUSTAINABILITY INDICATORS (Tests)

Scored Points

1.	Is there a Land Management Unit established?	
-	No action taken.	0
-	Idea accepted in principal by governor.	1
-	Staff appointed on temporary informal basis.	2
-	Governor accepts and commits to LMU concept by executing a decree or governor order approving full time LMU staff, organization structure, purpose, and functions.	3
-	LMU organization has grown and expanded due to increased responsibilities responsibilities.	4
-	Additional Governor decrees or orders have been executed to recognize LMU functions with other governorate physical planning and Amlak operations under one organizational umbrella.	5
2.	Has LMU office space been allocated and furnishings/equipment provided?	
-	No action taken.	0
-	Allocation of space and support resources under discussion.	1
-	Space allocated.	2
-	Space allocated and initial furnishings/equipment support provided.	3
-	LMU staff are actively budgeting for additional space and furnishings/equipment support to sustain operations.	4
-	Office budgets have been approved for future space and furnishings/equipment support resources to sustain operations.	5
3.	Is there a LMU Policy Committee, or Board of Directors, etc. responsible for establishing land management policy?	
-	No action taken.	0
-	Idea accepted in principle by governor.	1
-	Board or committee members selected by governor but not convened.	2
-	Committee meets occasionally.	3
-	Committee is active and meets every quarter.	4
-	Committee is very active and meets once a month or more.	5

Table 7.7 (Continued)

LMU SUSTAINABILITY INDICATORS (Tests)

	Scored Points
4. Have organization structures and staff responsibilities been coordinated or approved at other levels including central government?	
- No action taken.	0
- Limited action taken.	1
- Governor has issued other decrees to consolidate LMU activities but not obtained CAO A approval.	2
- Governor has determined that CAO A certifications are not necessary at this time.	3
- Discussions are underway with CAO A authorities regarding formal certification of LMU organization structures and concept.	4
- CAO A certification of LMU concept has been granted in principle. Organization structures, job descriptions being submitted.	5
5. Are staff collecting land planning and demographic data?	
- No action taken.	0
- Some data collection underway but unorganized and sporadic.	1
- Status of state lands in pilot project study areas determined.	2
- Project data for pilot projects developed to include land value and use data, available services in project area, needs assessments, etc.	3
- Available CAPMAS data by districts and other jurisdictions assembled.	4
- Comprehensive database established.	5
6. Have viable demonstration projects been identified?	
- No demonstration project has been identified.	0
- Demonstration project identified but development of project incomplete.	1
- Potential project study area defined and (GOE) land resource status confirmed.	2
- Background and purpose of project including needs assessment completed.	3
- Project justifications; benefits; financial plans; implementation schedules; local resource mobilization project cash flow analysis completed.	4

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Table 7.7 (Continued)

LMU SUSTAINABILITY INDICATORS (Tests)

		Scored Points
-	Demonstration project presentation completed and approved by Popular and Executive Councils.	5
7.	Have automated project systems been installed?	
-	No hardware/software installed.	0
-	Selected software installed and some on-the-job training provided for systems. LMU staff operators assigned.	1
-	Land Management Information System (LMIS); project financial analysis spreadsheets; implementation schedules; office budgets (1 year and 5 year plans). Completed.	2
-	LMU operators understand installed software systems and are actively completing data entry tasks for LMIS, CAPMAS and project data.	3
-	Automated project financial and implementation plans completed and approved. Other computer applications being explored and developed.	4
-	Maintenance contract arranged and MIS counterpart staff assigned and working with LMU staff operators.	5
8.	Have Geographic Information System been installed?	
-	No action taken.	0
-	Limited implementation of manual systems on close coordination with Amlak departments accomplished. (Management of state land resources related to projects underway).	1
-	Adequate mapping systems and filing of maps completed for all governorate land resources.	2
-	Automation of limited desktop mapping systems underway.	3
-	Acceptance and approval by Governor of need for more advanced computerized mapping systems such as GIS (Geographic Information Systems) granted.	4
-	Funding allocated and implementation of advanced GIS systems systems accomplished.	5

Table 7.7 (Continued)

LMU SUSTAINABILITY INDICATORS (Tests)

Scored Points

- | | | |
|-----|---|---|
| 9. | Have LMU office staff been adequately trained? | |
| - | No training given. | 0 |
| - | Very little training given. | 1 |
| - | Initial training program defined under LD-II Urban project implemented and accomplished with core staff. | 2 |
| - | Staff have received credibility from senior management or governors in presentations resulting in approved projects. | 3 |
| - | LMU staff have pursued training aggressively through their own resources to increase skill levels. | 4 |
| - | Budget for additional and continuous training has been programmed and approved. Staff liaison with GOPP underway to program other training needs. | 5 |
| 10. | Have LMU office staff capacity and motivation been addressed to sustain or increase performance effectiveness? | |
| - | No action taken. | 0 |
| - | LMU staff have capability to manage independent LMU or project budgets. | 1 |
| - | Office 1-year and 5-year plans have been prepared to address hiring more staff; staff rewards or bonuses; and allocation of equipment furnishings; etc. | 2 |
| - | LMU offices have successfully obtained funds for special project surveys and studies. | 3 |
| - | Office budgets approved including staff salary or bonus incentive plans. | 4 |
| - | Office and project funding levels are executed and reflect sustainability of both project and LMU administrative functions. | 5 |

Table 7.7 (Continued)

LMU SUSTAINABILITY INDICATORS (Tests)		Scored Points
11.	Are project and office accounting systems being used?	
-	No action taken.	0
-	Planned but not implemented.	1
-	Some attempt made to implement modern accounting procedures.	2
-	Project account record and balance statement formats installed.	3
-	Office account record and balance statement formats installed.	4
-	LMU staff are actively working and coordinating with counterpart financial directorate staff in keeping comprehensive records for both project and office related needs.	5
12.	Has construction been initiated?	
-	No action taken	0
-	Project construction design drawings; tender documents; bill of quantities; and other plans prepared and approved.	1
-	Tender/bid process initiated.	2
-	Limited action taken in regards to some on-the-ground activity such as site clearances; relocation discussions, etc	3
-	Contractors selected to perform initial construction work.	4
-	Construction underway.	5
13.	Are cost-recovery and income generation considerations favoured?	
-	No strategy developed.	0
-	Limited local resource strategy because of scarce land resources.	1
-	Strategy of cost-recovery and income generation on pilot projects maximized and properly defined.	2
-	Terms and conditions for land tenure and title process and land sale auctions identified.	
-	Approval for local resource mobilization strategy, land transfer terms and conditions granted for projects.	4
-	Actual execution of project cost and revenue components underway and being monitored through project revolving fund accounts.	5

(Suez, Port Said, Giza, and Cairo) and also to support LMU activities in the other two urban LMUs (Alexandria and Qaliubia) as need arises and interest is expressed. To be effective, this level of support should be available as soon as possible and should run for a minimum of three years. The kinds of support envisioned all fall under the heading of technical assistance and the funding required is very small.

- o Level Two Recommendations represent a more intensive level of support for existing LMUs which would positively assist them in reaching their full potentials. It would be a mix of technical assistance and the setting up of a central revolving fund for LMU projects. Ideally these recommendations should be put in place by mid-1993, but with a mechanism whereby this support to LMU offices is conditional on their progress under Level One and on the full commitment of their respective governorate's leadership.
- o Level Three Recommendationsaim at replicating the LMU office concept in other governorates. In timing they would best be deferred until the end of 1993 and should depend on the continued evolution and success of the existing LMU offices. Of course, should particular governorates express serious interest in the concept at an earlier date, a way to meet this interest should be made possible.

Details regarding all three levels of recommendations are presented in Appendix 13.

7.4.2 Technical Assistant Contractor (TAC) Recommendations

The Technical Assistant Contractor (TAC) suggested short-term and long-term opportunities and strategies as part of a previously cited project resource mobilization report that was completed prior to an outside assessment of the LMU component. These recommendations were reinforced by the independent Assessment Team's findings. At the time of writing this Final Report, the following specific recommended actions, sensitive to the findings of the independent Assessment Team, are suggested:

- o Transitional Period Recommendations (Prior to October, 1993);
- o Longer Term Action Recommendations (From October, 1993 to October, 1998).

7.4.3 Transitional Period Recommendations

The following specific actions are suggested prior to October, 1993:

- o Continue periodic LMU Office Director's meetings to share information and project activity experiences at various governorate locations, (see Level One Recommendations of Assessment Team),
- o Continue technical assistance monitoring of the cost and revenue components of LMU pilot projects in at least Suez, Giza, and Port Said and assist these governorates with other project activities as the need arises, including establishment of LMU field offices;
- o Assist Cairo and Qaliubia governorates in preparing and presenting pilot projects to new governors for approval and financing;

- o Assist Alexandria Governorate in project development and approval as interest arises;
- o Continue monitoring of LMU project revolving fund accounts and progress on financial independence to achieve sustainability;
- o Pursue all Level One and Items 1 and 2 (see Appendix 13) of Level Two Assessment Team Recommendations. In particular, follow up recommendations put forward by Assessment Team regarding establishment of a central revolving fund in which governorate LMU offices can present proposals either for project seed capital or for project loans;

Items 3 and 4 (see Appendix 13), of Level Two Assessment Team Recommendations would be contingent on commitment, interest, and ability to mobilize Technical Assistance resources in a timely fashion;

- o Depending on progress of LMU offices and commitments to expand to other projects and enlarge staff, seek and obtain CAO A approval and recognition for combining functions of Amlak, Physical Planning, and LMU offices into one function under an Urban Planning and Land Development Department.
- o Hold another Workshop/Seminar for Land Management Unit offices similar to what was held in Giza during 1991 to address the following:
 - Present current LMU organization structures and project progress;
 - Adopt recommendations of the independent Assessment Team and this Final Report;
 - Discuss current project account procedures to establish LMU office financial independence and receive confirmation of such procedures from the responsible legal/financial authorities at the appropriate ministerial level;
 - Demonstrate Land Management Information Systems (LMIS) and desktop mapping in Giza and Port Said governorates respectively and present findings from the "Symposium in Computers and Practice" (March 1,2,3, 1992) in which a selected governorate task force participated;
 - Consider recommendations to clarify or modify existing enabling legislation to clearly allow LMU offices to have financial independence at the local level;
 - Consider procedures and appropriate timing to consolidate Amlak, Physical Planning and LMU offices under one department for CAO A recognition;
 - Determine Ministry of Local Administration, (MLA) and Social Development Fund (SDF) criteria and procedures for obtaining project start-up funds to help mobilize LMU project construction activities including making any formal requests for project financial assistance;
 - Determine procedures from the Egyptian Survey Authority, CAPMAS and GOPP to share information and maps that will help in future LMU project identification and monitoring activities. (Of particular interest would be the availability and procedures for obtaining automated cadastral maps and other land use map data being processed by the Egyptian Survey Authority and its USAID Technical Assistance Contractor, GEONIX.

Participants at the Workshop Seminar would include governors, secretary generals, LMU office directors and staff, MLA, GOPP, the Egyptian Survey Authority, legal and financial directors of the governorates including the responsible central government ministry to provide leadership in confirming local LMU office financial independence and the Social Development Fund, in addition to TAC and USAID.

7.4.4 Long-Term Actions

Because of past experience regarding the time required to mobilize certain selective technical resources, the TAC suggests that timing for longer term recommendations consider the following:

- o Continue periodic LMU office directors' meetings at various governorate locations, (see Level One Recommendations of Assessment Team);
- o Continue technical assistance monitoring of the cost and revenue components of LMU pilot projects in participating governorates including establishment of LMU field offices;
- o Continue monitoring of LMU offices project revolving fund accounts and progress on financial independence to achieve sustainability;
- o Hold specialized workshops or seminars addressing the following issues:
 - Actual procurement of updated maps of urban areas at appropriate scales to address future urban development projects from the Egyptian Survey Authority. This includes appropriate automated cadastral survey and land use maps which could be transferred to governorate installed computer hardware and software systems;
 - Innovations regarding paying for growth including the necessary enabling legislation and procedures to achieve more effective public/private partnerships and land market efficiencies;
 - Procuring and sharing automated planning, demographic and land information from CAPMAS, GOPP and the Egyptian Survey Authority through computer networking;
 - Pursuing potential future LMU opportunities regarding employment oriented land development projects.
- o Follow up Items 3 and 4 (see Appendix 13), of Level Two Recommendations of the Assessment Team depending on interest, commitment and ability to mobilize technical assistance resources to properly install additional support equipment and provide training of staff;
- o Pursue Level Three Recommendations of the Assessment Team regarding replicability of the LMU office concept and experience to other governorates.

7.4.5 Other Recommendations Affecting Impact on Local Resource Mobilization, Replicability, and Financial Independence

Crucial to the concept of mobilizing local resources and therefore achieving "local government" versus "local administration" is the allowance of financial independence for local units such as LMU offices. This independence, of course, would be dependent on available governorate controlled land resources and an ability to cross-subsidize revenues gained from the sale of higher valued lands to help in limited land resource areas or enhance the affordability of target low income urban residents. Partnerships between those governorates with very limited available land resources and those with more land resources could be formed particularly in similar regions headed by an appointed "regional governor". Such a concept could help in promoting a cross-subsidization of benefits gained from land resource assets to achieve similar regional goals and objectives and replicate the LMU concept. Shown in Table 7.8 is a breakdown of seven planning regions as currently defined by Presidential Decree.

Other selected recommendations put forward by a local district chief and under-secretary as part of a local government resource mobilization seminar sponsored under the LD II Urban, reinforce the concept of financial independence for local units such as LMU offices. LMU offices therefore can essentially serve as important administrative functions consistent with the following recommendations;¹

- o "Allow local units to keep the surpluses resulting from their efforts to lower expenditures on the local projects allocated in the budget. In addition, authorize the governorate popular council to make modification in Bab III of the governorate budgets, based upon the governor's suggestions, regarding use of any surpluses."
- o "Provide a comprehensive funding system that contributes to development of local resources and not to using consolidated budgets dependent upon central resources. This will lead to mobilizing local resources and potentials; and attract local savings for funding of local investment projects. Also, it will integrate the plan of citizen participation and the government plan in a way that speeds up the achievement of the local development objectives."
- o "Differentiate between local resources and national resources. This will motivate citizens to question local authorities in cases of negligence or failure to complete the service requirements, in addition, to maintaining the service projects in order to utilize them for the community."

¹ From a paper entitled "The Local Administration System in Egypt", by Undersecretary Eng. Abu Amra Hassan Embaby, Helwan District Chief presented at LD II Urban Training course for local government officials and Popular Councils.

Table 7.8

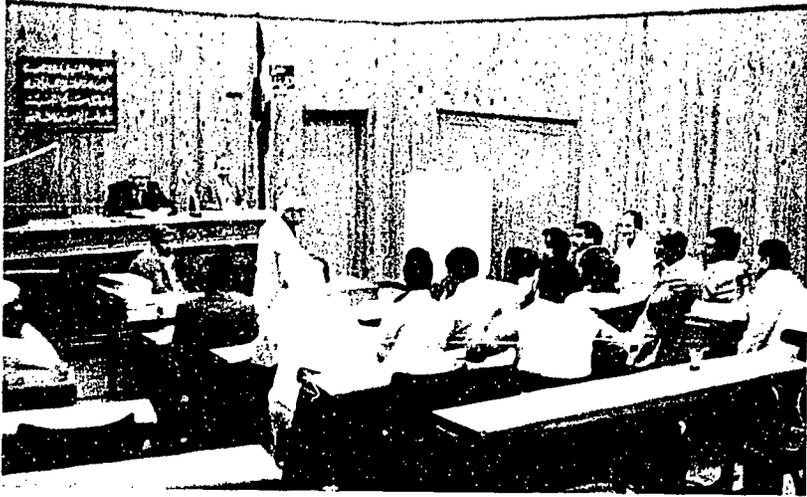
REGIONS BY PRESIDENTIAL DECREE NO. 181/1986

REGIONS	GOVERNORATES	TOTAL
1. CAIRO	Cairo + Giza + Qaliubia	3
2. ALEXANDRIA	Alexandria , El Beheira, Matrouh	3
3. SUEZ CANAL	Suez, Ismailia,, Port Said, El Sharkia, North Sinai and South Sinai	6
4. EL DELTA	El Gharbia, El Dakahlia, Dommiat, Kafr El Sheikh, Menoufia	5
5. NORTH UPPER EGYPT	El Fayoum, El Menia, Beni Suef	3
6. ASSIUT	Assiut, El Wadi El Gedid	2
7. SOUTH UPPER EGYPT	Sohag, Qena, Aswan, Red Sea	4
	TOTAL	26



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POPULAR COUNCIL TRAINING - SUEZ



**GOVERNOR OMAR ABDEL AKHER PRESIDING AT GIZA
GOVERNORATE TRAINING GRADUATION DAY**

Section 8

TRAINING

8. TRAINING

8.1 TARGETS AND RESULTS

The basic task of the Training component of LD II Urban was to design and deliver training courses that contribute to increasing the capabilities of the governorates by:

- o Upgrading local government Popular Councils' abilities to help identify and prioritize basic service needs in their areas.
- o Upgrading local government staff skills to provide basic services.
- o Incorporating new procedures, systems and policies to better provide basic services.
- o Developing local revenues to finance local investments.
- o Developing stronger public-private sector linkages to respond to basic service needs.

LD II Urban training received its training policy directives from the Urban Local Development Council Committee, consisting of the six urban secretaries general and chaired by the Secretary General of Cairo Governorate. Each urban governor selected a training coordinator, who acted as a liaison between the LD II Urban staff and the governorate. The training coordinator served as the rapporteur (chairperson) of the governorate training committee, which was chaired by the secretary general of each governorate. These training committees were charged with developing a plan for training within their respective governorates. LD II Urban staff worked directly with these training committees to develop training needs assessments, training plans and training administration policies in LD II Urban related activities.

8.1.1 Level of Technical Assistance

One of the tasks of LD II Urban technical assistance was to build the capacity of each governorate to conduct training related to LD II Urban projects. To that end each governorate received technical assistance training and equipment to develop a government training center in each governorate. These fully equipped training facilities also received all relevant information concerning LD II Urban Training administration, materials, methodology and instructors. Each governorate training staff now has the equipment, systems and training to ensure their ability to carry on LD II Urban training functions after the end of LD II Urban.

In addition to each governorate, LD II Urban Training Technical Assistance Team staff assisted the Department of Organization and Administration (DOA) training officials in receiving equivalent training from the LD II Urban Training component. Workshops were conducted in Egypt every two months for training coordinators and DOA training directors. In Phase I of training, Suez and Port Said Governorates which were not included in NUS received extra attention to help them catch up to the four governorates which had been in NUS. Suez and Qaliubia Governorates also had no training facilities and poorly trained DOA staff; therefore, LD II Urban made an extra effort to bring both governorates up to equal standard with the other governorates.

The capability of each governorate was augmented in late 1991 to include participation of the Ministry of Local Administration (MLA) training staff in all LD II Urban training efforts, with the objective of transferring central coordination capacity from LD II Urban to the MLA. It is important to note at this time LD II Urban has certified each governorate as capable of standing on its own and able to cooperate with the other urban governorates in joint training. The in-country technical assistance and training of staff was completed for the six governorate training coordinators and governorate DOA staff. Subsequently MLA staff joined the training coordinators and governorate DOA staff to attend and complete an overseas training program at the Learning Systems Institute of Florida State University in November, 1991.

The last two years of LD II Urban training were devoted to evaluating the impact of on-the-job performance of the trainees and in institutionalizing the LD II Urban process among the six urban governorates and the MLA. Additionally, the Training component produced over forty training manuals which, along with other training modules, were distributed to the governorates after field testing and impact evaluation. Future, human resources demand in areas of continued growth after the completion of LD II Urban, such as preventative maintenance, road maintenance and computer training, were anticipated and, consequently, the LD II Urban training staff developed a 'Peer Training of Trainers' approach in each governorate. These groups of Peer Trainers will enable the governorates to continue in LD II Urban-related areas within expected funding levels of training in the near future. It is also anticipated that the Ministry of Local Administration will require intense technical assistance in training management and coordination of LD II Urban, LD II Provincial and the Training Block Grant during the period from November 1992 to September 1993. While the MLA is learning its new functions, the urban governorates should be able to maintain high standards of administrating, monitoring and evaluating governorate training programs.

The LD II Urban concept paper "Institutionalization of Training", submitted in April 1991 to USAID, highlighted the experience of LD II Urban as being very positive, especially in the area of multi-governorate training. The paper proposed two structures to sustain the momentum of LD II Urban Training after the end of LD II Urban by (1) establishing a National Local Development Training Council and (2) establishing a Center for National Training at the Higher Technical Institute and/or Sakkara Training Center. As LD II Urban training is to merge with other AID funded training activities in the period from November 1992 to September 1993, it was recommended that Regional Training Councils be established to develop, coordinate and conduct multi-governorate training activities. Since 1991, the Ministry of Local Administration has taken an active role as a national coordinating body, has reopened the Sakkara Training Center and has proposed to hold regional training meetings from November 1992 to September 1993. As a result, the capacity of the Government of Egypt to continue training can be expected to be sustained.

Contractor Personmonths

During the life of LD II Urban, 302 professional personmonths and 66 non-professional personmonths were expended.

Training

Trainees received a total of 56,175¹ days of instruction.

¹ This includes 6537 trainee days for Ministry of Local Administration training.

8.1.2 Urban Training Results

Achievements in LD II Urban Training are specifically defined in actual numbers of trainers, trainees, trainee days completed, courses developed and adopted (Figures 8.1 and 8.2). A comprehensive review of training courses completed is given in Appendix 14. While numbers alone do not guarantee quality, they are indicators of achievements. Timing in training also defines its success. When training is conducted at the appropriate time to fill performance gaps identified as training needs by the Government of Egypt, it is usually the most cost effective. Realism also defines training success when the training courses, materials, equipment, and systems developed by LD II Urban have a reasonable chance of being sustained after LD II Urban is completed.

LD II Urban Training tasks in each case were quantifiable and therefore the measure of their success was measured by the benchmarks that were mutually agreed upon with the Government of Egypt and USAID in reports such as the LD II Urban produced Training Needs Assessment Report, The Inception Report, Diagnostic Report, Annual Status Reports and Component Work Plans.

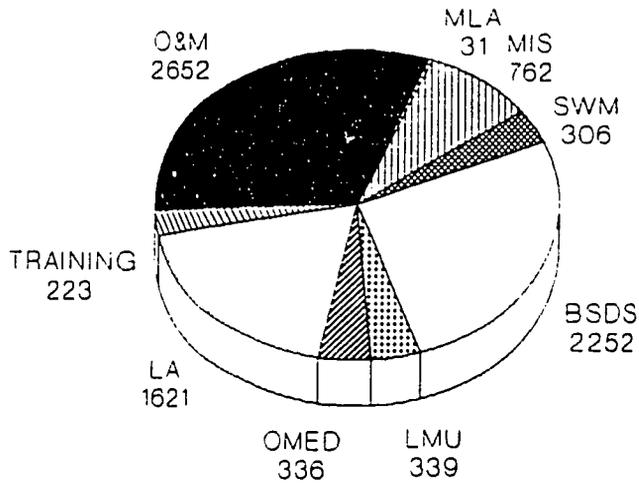
8.1.2.1 Skills Training - Over 80% of the 8,522 governorate officials trained by LD II Urban received technical training. The courses, primarily in the BSDS and O&M areas, were developed with the TAC Technical Assistance Teams and governorate supervisors by first identifying performance gaps in skills required to do LD II Urban-related functions. The Training Technical Assistance Team then decided what kind of training was appropriate, how it should take place at the right time to get the maximum benefit and how to get the best instruction at the best price. The result of this process was to relate formal training directly to the specific skills requested to operate and maintain standards in LD II Urban-related jobs. The desire was to develop training objectives with outcomes that could be observed and measured to evaluate the impact upon the trainee's actual job performance.

As the results of course evaluations and follow-up of the Technical Assistance Training Team and the Government of Egypt supervisors clearly show, the technical Training component of LD II Urban was very successful. Each LD II Urban component has documented its own success in its section of this Final Report. Each component states that LD II Urban trained accountants, engineers, mechanics, operators, computer programmers and other technical personnel, who lacked proper skills before LD II Urban training, are now capable of performing their LD II Urban-related functions with a high degree of accuracy.

8.1.2.2 Management Training - Approximately 20% of the participants in LD II Urban received skill building in non-technical areas. The management training component was of great significance to the institutionalization aims of LD II Urban. For, as the authors of The Egyptian Bureaucracy² noted, many management deficiencies exist in Egypt because the problem of low productivity in the government directly relates to the low job satisfaction of the bureaucrats. In the findings of each technical component's Impact Evaluation of LD II Urban Training, it was quite clear that 83-100% of the participants in the Land Management, Solid Waste Management, OMED and MIS components felt a very high degree of job satisfaction after LD II Urban training and therefore were productive. But as The Egyptian Bureaucracy also points out "bureaucratic flexibility is central to the development capacity" and the indicator

² Palmer, Monte; Leila, Ali; and Yassin, El Sayed. The Egyptian Bureaucracy. The American University of Cairo Press. 1989.

NO. OF TRAINEES PER TECHNICAL AREA (APRIL 1988 - DEC 1992)

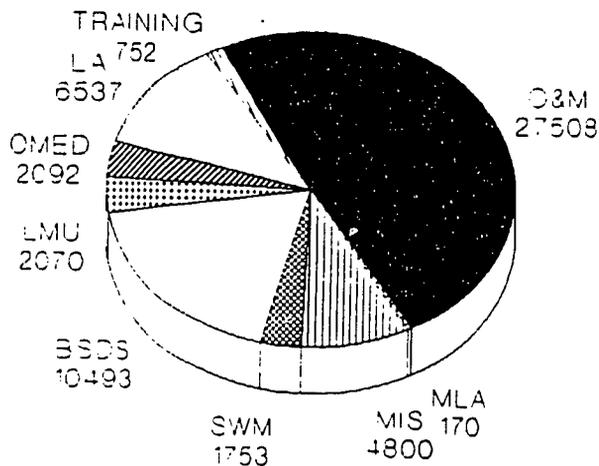


TOTAL NO. OF TRAINEES : 8,522

NOTE: Number of trainees relates to number of persons attending individual training courses. As some persons attended more than one course, the actual number of persons trained will be less than this figure

FIGURE 8.1

NO. OF TRAINEE DAYS (APRIL 1988 - DEC 1992)



TOTAL NO. OF TRAINEE DAYS : 56,175

FIGURE 8.2

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of flexibility is "the willingness of senior officials to delegate authority and the corresponding willingness of subordinate officials to assume responsibility." The findings of LD II Urban impact evaluations clearly show that, in only one case, the Land Management Unit component, did participants in LD II Urban training feel they received more responsibility (78%) in their jobs after training.

In the participant evaluations of training overseas, which focused upon management behavior, most indicated they were now prepared to make a contribution by improving the operational procedures, programs or services in their areas of speciality; in other words, take responsibility. Unfortunately most returned to an environment where they are not delegated responsibility. A case in point is the training coordinators and Directorate of Organization and Administration staff who were trained in learning systems design at Florida State University. They felt more responsible for the quality of training in their governorates after the training they received at Florida State, but returned to Egypt to discover their abilities would be limited in the future by a more centralized training unit of the Ministry of Local Administration.

- 8.1.2.3 Training of Trainers - A small but potentially significant long-range training impact should be realized from the LD II Urban Peer Training effort. Peer training (a version of Training of Trainers) was developed in areas of projected manpower needs within the governorates after LD II Urban completion. The LD II Urban targeted computer training, preventative maintenance training and road maintenance training areas since thousands of mechanics, and maintenance and computer operators will be needed in the years 1993-1998 to satisfy skill requirements for new garages, automated offices and expanded road maintenance. Consequently, LD II Urban created teams of Peer Trainers in each governorate who are now available to carry on LD II Urban-related training. Peer Trainers were carefully selected, trained and monitored by LD II Urban Training Technical Assistance Team staff to address governorate needs in the future.
- 8.1.2.4 Systems Development - An Arabized automated training participant data bank, program monitoring and budget tracking system was developed by LD II Urban Training Team staff and installed in each of the six governorates. Each governorate now has the capacity to report on every trainee and training program in their governorate. Additionally, the Ministry of Local Administration now has the capacity to use the same system in its operation of the Sakkara Training Center, as well as to use the LD II Urban system for reporting nationally on the status of training conducted by the Ministry.
- 8.1.2.5 Materials Development - Each urban governorate now has all the training materials necessary to replicate the LD II Urban courses in conjunction with a Trainers Roster of appropriate instructors and training firms capable of conducting LD II Urban training. Additionally, the governorates now have the administrative skills to modify and reproduce parts of these courses for future training program development. These materials in themselves may not directly impact on the quantity of training in the governorates; however, having a standard set of documents will have an impact on the consistency of training in the future and should contribute greatly to the quality of instruction.
- 8.1.2.6 Training Administration - Most human resources development departments include Training in Human Resource Development as a management component. It is now possible for the urban governorates to build on their training strength and to expand their potential to related (Human Resource Development) areas. For example, the training coordinator in a governorate may find the performance gaps identified in the

needs assessments do not require formal training courses but could be addressed by better recruitment practices or job counselling. The training coordinator should seek more cost effective remedies for human resources development of governorate office staff. Organizational development strategies were also introduced by LD II Urban Training Team staff and government training coordinators are now capable of distinguishing between a team building program and an individual training course.

8.1.3 Key Benchmarks and Results of LD II Urban Training

The key benchmarks and results of LD II Urban Training were:

8.1.3.1 Numbers of Trainees³ - The 1989 LD II Urban produced Diagnostic Report proposed to train 1800 governorate personnel over a two-year period in the development of the necessary training skills to meet the needs of the BSDS, O&M, SWM, LMU, OMED and MIS components for all six governorates. Subsequently, for the same level of effort proposed in the 1990 - 1992 Work Plan, an additional 4,000 personnel were trained.

Result: Approximately 8,522 personnel were trained. The Training component exceeded its goal by 140%.

8.1.3.2 Training Centers - To establish six viable governorate training centers headed by a training coordinator in each governorate by the end of 1991.

Result: Urban governorate training centers are fully operational. Most of the training coordinators served the entire four years of LD II Urban.

8.1.3.3 Overseas Training - To organize and implement an overseas training program, for six technical groups, to the United States and Turkey. In addition, LD II Urban planned and organized a study tour for the six urban training coordinators, their Directorate of Organization and Administration counterparts and Ministry of Local Administration training liaison staff in November 1991.

Result: One hundred and thirty-seven senior officials working on LD II Urban-related assignments attended seven different overseas training programs specially designed for LD II Urban needs. The training coordinators' Directorate of Organization and Administration counterparts and the Ministry of Local Administration Training Director completed a training administration program.

8.1.3.4 Training Manuals - To complete twenty-seven Arabic training manuals, for each of the technical areas, for the governorates to use in reaching training needs of its future employees by June 1992.

Result: Over thirty seven manuals were completed in Arabic and English.

8.1.3.5 Arabized Training Roster System - To develop and install an Arabized Training Roster System that would allow each governorate to account for each trainee, course,

³ "Trainees" means number of persons attending individual training courses. The actual number of persons trained will be less than this as some people will have attended more than one course.

vendor, cost per course, cost per trainer, cost per trainee day and other pertinent data to be used as a management tool for each governorate training center by June 1992.

Result: Six governorates have equipment, software and trained staff to carry out training administration for all areas of training in the governorates.

8.1.3.6 **Roster of Competent Local Trainers** - To develop a roster of competent local trainers for each of the over 80 technical subject areas developed by LD II Urban for the governorates to use as instructors in LD II Urban courses by June 1992.

Result: Each governorate has a directory of instructors and firms, who have worked in their governorate and who have been recommended by LD II Urban.

8.1.3.7 **Institutionalization** - To institutionalize LD II Urban training policies and liaison procedures for the six governorate training coordinators and the six Directorate of Organization and Administration counterparts, with the Ministry of Local Administration by June 1992.

Result: Each governorate has the capacity to work together with the Ministry of Local Administration. Presently the Ministry of Local Administration however does not yet itself have the capacity to coordinate the governorate training activities.

8.1.4 **Training Evaluation**

The LD II Urban training evaluation process was built upon the premise that evaluation of training should primarily be formative; that is evaluation should be conducted while the courses are being offered in order to improve their effectiveness. Every one of the over 500 courses given were therefore evaluated by LD II Urban staff. From the first year of LD II Urban, the training coordinators and training committees were involved in evaluating each and every one of the courses in their governorates. New courses under development were evaluated by the LD II Urban Training Technical Assistance Team staff and other appropriate technical assistance groups in selected governorates before being approved for future use in LD II Urban-contracted courses. Courses offered by outside agencies were evaluated on a regular basis by the Training Technical Assistance Team staff throughout LD II Urban.

Additionally, an impact evaluation program was developed to assess the effectiveness of groups of courses within each LD II Urban component. This summative or impact evaluation was a major training activity that occurred during the last two years of the LD II Urban. The individual component impact evaluations were designed primarily to judge the effect of LD II Urban training on job performance, as well as to identify strengths and weaknesses in the courses and instructors. Each impact evaluation was carried out together with Training Team staff, governorate training coordinators and governorate offices. The methodology used relied upon questionnaires completed by the trainees and their supervisors. The evaluation also used structured interviews of both trainees and their supervisors and compared the results of both the questionnaires and the interviews with the perception of the LD II Urban Training Technical Assistance Team staff. These impact evaluations documented the results, issues addressed and recommendations of each LD II Urban component. They provided a historical record of what was accomplished and showed both achievements and problem areas that required change. Because of time constraints, the BSDS and O&M component evaluations were developed by an outside local consultant using data gathered by LD II Urban.

- 8.1.4.1 Management Information Systems (MIS) - The first impact evaluation was conducted in 1989 as a review of all computer and management courses offered to the MIS offices of the six governorates. The results clearly showed the rewards to the training recipient and his employer as attested by the high degree of satisfaction of the employee and his/her supervisor. In addition, the evaluation was able to show the need for additional specific training in the future and the desirability for more training. It also revealed non-training issues which either helped or hindered the process.
- 8.1.4.2 Office of Management and Economic Development (OMED) - It was possible to study all participants and courses conducted in the six governorates since the size of the OMED offices was small. The findings indicated the courses had directly assisted OMED office staff in performing functions, using the computers they were provided. The training provided the participants with the technical tools to identify feasible projects, prepare investment costs, financial structures, identify sources of financing and to relate projects to the GOE Five-Year Plan. OMED staff developed skills to make more effective presentations of their work to their governors or secretaries general. Additional courses were recommended through an overseas training study tour, wherein the OMED office staff could observe first hand their counterparts in the U.S.A. working at similar tasks.
- 8.1.4.3 Land Management Unit (LMU) - All LMU courses and participants were studied by the LD II Urban training staff. Since the LMU component was a new concept in LD II Urban and since the LMU office staff were new to the field, the participants required a different training design than other technical groups. Courses were specifically developed for LMU office staff in several areas to meet participant needs. It was concluded however that more computer courses would be required to improve LMU office staff productivity. Additionally, the LMU office staff could benefit from on-site observation of programs in other countries and each governorate could benefit from team building exercises (as opposed to working on an individual basis) to help them become more productive units.
- 8.1.4.4 Basic Services Delivery System (BSDS) - Courses offered under the BSDS component were selected for their impact on the performance of four different groups - engineers, accountants, governorate planning and follow-up staff and policy makers - as they related to LD II Urban requirements. Seven courses were studied - four engineering, two management and one budget and finance course. Two of the engineering courses on construction management (revised NUS courses) and two new courses designed to meet past deficiencies were also studied. In general, all seven courses were effective in helping the respective groups perform the work required by LD II Urban.

Since BSDS required unique training for its different components, recommendations reflected that diversity. Key to these findings were the high degree of usefulness of the manuals produced by the BSDS Team for participant use after the courses.

- 8.1.4.5 Operation and Maintenance (O&M) - During 1991, O&M courses accounted for over 50 percent of the total program. Preventive maintenance and vocational training courses made up the large majority of O&M courses in 1991. Since LD II Urban trained over 2,000 Government of Egypt O&M personnel, a sampling technique was used to gather the necessary data to judge the effectiveness of the courses.

The review of the O&M evaluation documents concluded that the major technical training requirements had been met and that the materials developed by the programmers were very suitable for use by the governorates in the future. The

evaluation also commended the quality of the instructors used in the courses and the methodology used.

8.1.4.6 Overseas Training Evaluation - As per USAID Handbook Ten, each of the participants in the eight overseas training courses were evaluated prior to their departure, immediately after their return and six months after their return to Egypt. The results of these evaluations were tabulated and submitted to USAID. A summary report on these training courses was submitted in January of 1991. The results of overseas study tours were very positive and helped complete the training of key government officials in LD II Urban-related areas.

8.1.5 Training in Support of Training

From 1989 through the end of LD II Urban, the LD II Urban Training staff promoted skill and capacity building of governorate training staff as an integral part of the training effort. Fortunately, each governor selected a senior staff member to serve as a training coordinator. Three of the six selected were also Directorate of Organization and Administration (DOA) training administrators. In all governorates, a Directorate of Organization and Administration counterpart worked with the LD II Urban training coordinators. Consequently, twelve Directorate of Organization and Administration and training coordinators were regular participants in the comprehensive inservice "Training Of Training Administrators" course established by LD II Urban in October 1989. The same group, with minor changes in personnel, worked together with LD II Urban Training Team staff, who were assigned two governorates each for intensive on-site technical assistance. The group of twelve attended regularly scheduled training meetings every other month for a workshop on a particular subject area and to review monthly plans, discuss problems and share information.

In July of 1991, the twelve attended a two-week organizational development workshop to accelerate the process of institutionalization. The workshop on training needs assessment, planning and evaluation was followed-up by one-and two-day workshops on other training issues such as curriculum development, materials development, selection of instructors, selection of firms, contracting processes, evaluation techniques, and reporting techniques. In October 1991, the Ministry of Local Administration assigned a senior advisor to the group, who participated with them in several workshops before and after joining the group on their overseas tour.

The six governorate training office staff groups and a Ministry of Local Administration representative, along with a LD II Training Team member, spent two weeks at the Learning Systems Institute at Florida State University in an intensive program of training administration. The course was designed by an university consultant, who visited Egypt in August of 1991, to determine the actual needs of the training participants. The course he designed, after visiting and consulting each governorate, was an integral part of the institutionalization process.

Finishing touches were implemented during the January to June 1992 period through a post-USA training conference at Sakkara Training Center and a series of specialized workshops for the governorate training coordinators in such areas as the use of the LD II Urban Training Roster System, Training Manuals, Impact Evaluation and Budget Administration.

In addition to training the coordinators to work effectively with the Directorate of Organization and Administration and Ministry of Local Administration, one-to two-day workshops were designed to help them work within their governorates more effectively. To that end, course implementation coordinators, secretaries general and heads of departments were invited to attend the training coordinators meetings; eg., O&M directors and training coordinators met

to evaluate garage management training; Project Implementation Coordinators (staff members from LD II Urban Teams) were invited to the host governorate meeting; secretaries general were invited for a day (as a group) when a major policy issue was being planned such as overseas training. In this way, the program built a training team effort in each governorate and among governorates. Additionally, the junior training staff in each governorate received instruction on use of computers and the LD II Urban Training Roster System. At the end of the course, Ministry of Local Administration staff at Sakkara Training Center also received basic training.

8.2 IMPACTS

8.2.1 Support

A 1991 newspaper article in the Egyptian Gazette pointed out that a single person could not live on LE 200 per month, never mind support a family. While LD II Urban was not able to subsidize the lowly paid Egyptian government officials, it was able to give local employees skills to earn more money.

The LD II Urban Training component targeted the low income urban residents. It gave thousands of Egyptians, who earn from LE 150 to 300 per month, the opportunity to build their technical skills in fields, such as computer training where often there was little or no opportunity for them to get these skills outside of the LD II Urban. For hundreds of Egyptian professional trainers, LD II Urban was able to offer work in their field and technical assistance in upgrading their skills. LD II Urban was also able to help hundreds of elected officials develop their opportunities for advancement through training and participation in project development.

LD II Urban training provided the opportunity for both the manager, through management training, and his employees, through technical training, to take on these new responsibilities of modern government. Having the opportunity to see modern practices first hand in another country through overseas training also gave key governorate officials a fresh outlook and, in many cases, helped build their confidence.

A major LD II Urban requirement was to help change the attitudes of Egyptians about maintenance of their existing resources. Most LD II Urban training courses focused their efforts on planning and maintenance. Figures 8.3 through 8.5 give a profile of LD II Urban training efforts in the six governorates.

8.3 INSTITUTIONALIZATION

8.3.1 Popular Councils/Executive Councils

LD II Urban conducted management training for over 700 Popular Council and Executive Council members. An impact evaluation of the courses, approximately one year after the training, showed that the trainees were generally satisfied that they had received adequate exposure to the following training area priorities:

- Management training emphasizing effective performance in work related tasks;

TOTAL NO. OF TRAINEES PER GOVERNORATE

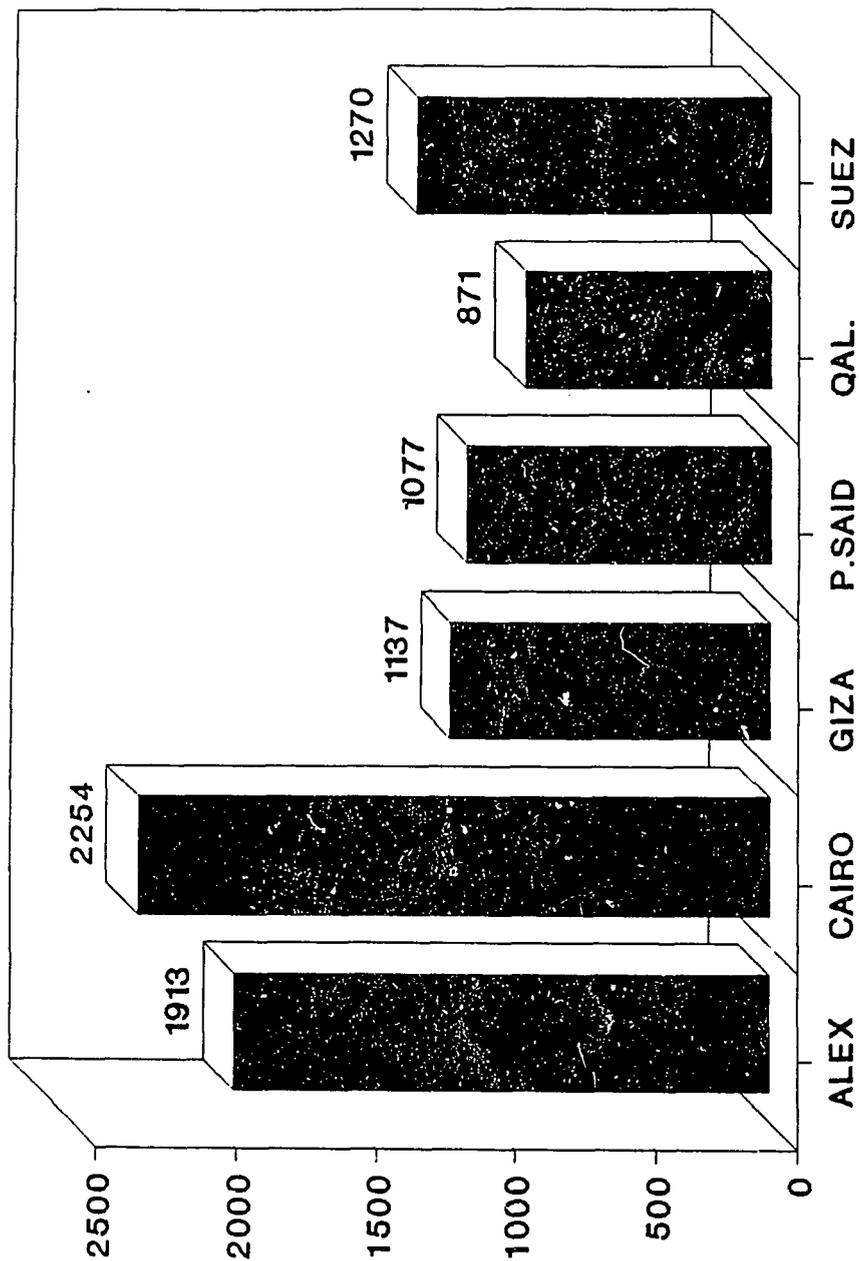


Figure 8.3

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TOTAL NO. OF TRAINEE DAYS PER GOVERNORATE

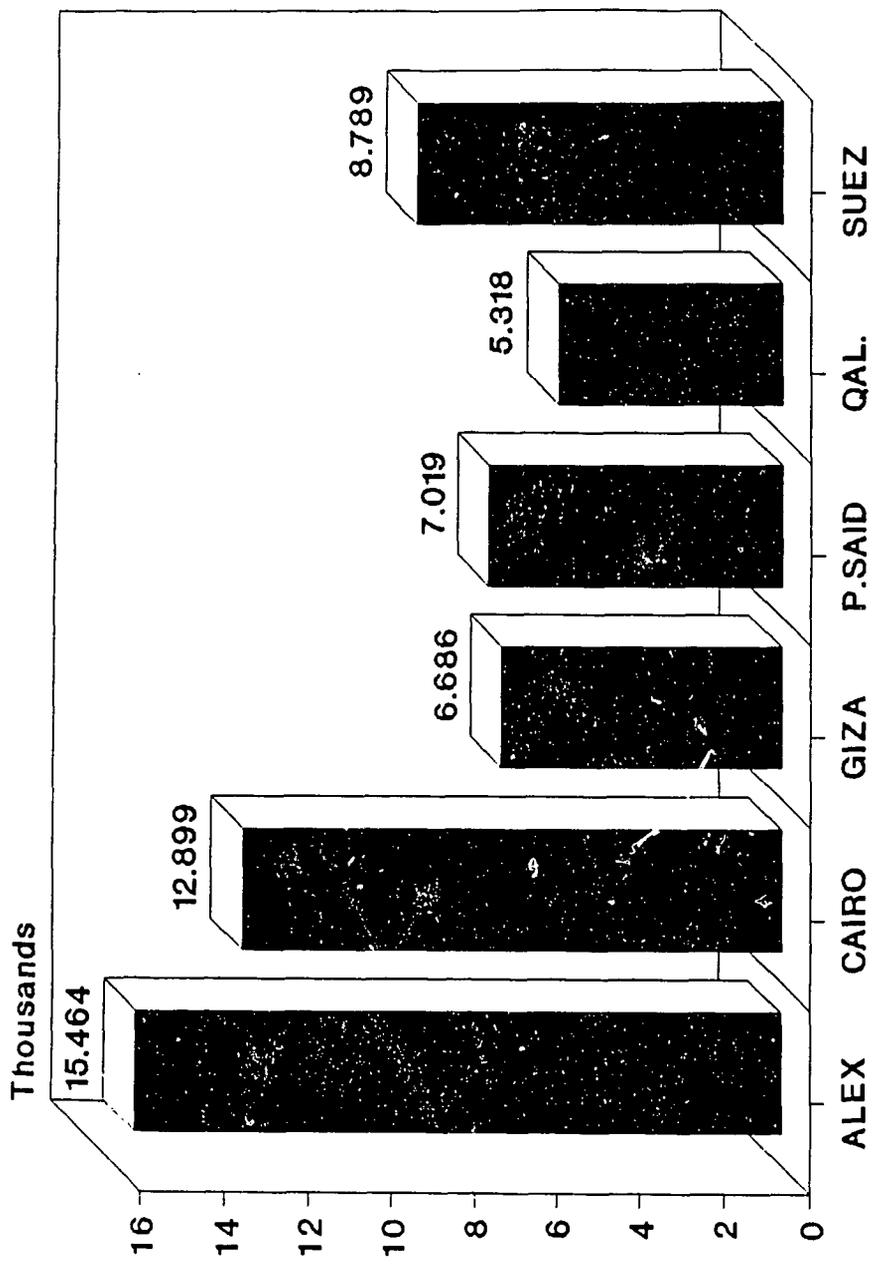
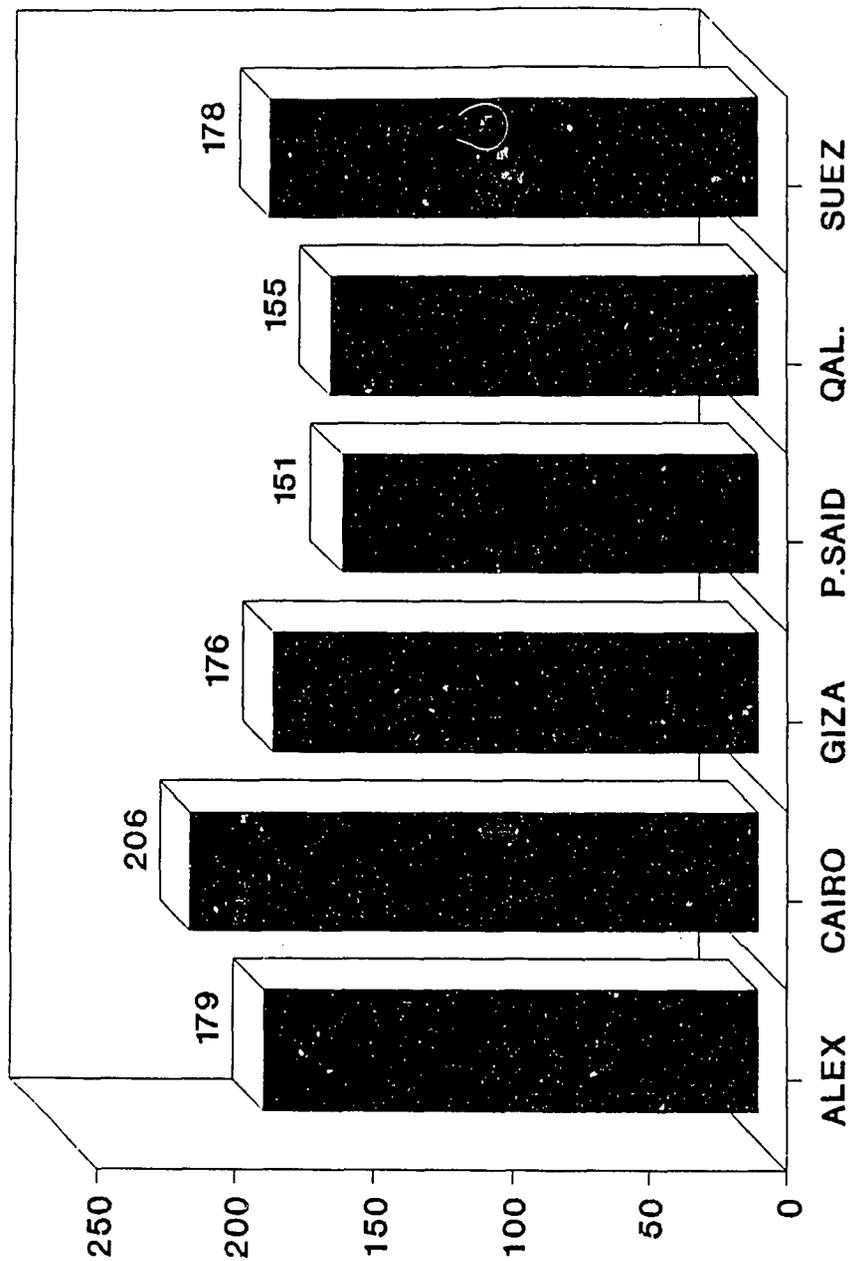


Figure 8.4

20

TOTAL NO. OF COURSES PER GOVERNORATE



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- Joint training of Executive and Popular Council members in order to clarify the responsibilities, duties, authority and relationships between them;
- Identification of local resources to resolve local problems;
- Development of ideas or proposals for amending the local administration law to strengthen authority to achieve more decentralization.

Two training manuals were developed for these courses. Other training efforts in this area were:

(i) SEMINAR ON MANAGERIAL AND BEHAVIORAL SKILLS FOR GOE GOVERNMENT EXECUTIVES

Topics covered included:

Local Administration structures and relationships, management of local administration resources, decision making, problem solving, management practices, report writing, evaluation strategies.

(ii) LEADERSHIP SKILLS FOR POPULAR COUNCIL MEMBERS

Topics covered included:

Local administration structure and relationships, popular rights and duties, resolution drafting, role of the Council in planning and monitoring, management of self-help projects, public expenditure process, review of special funds for development.

In addition, the following courses were developed and conducted:

(i) FEASIBILITY ANALYSIS AND PROJECT ASSESSMENT

Topics covered included:

Rationale for public programs, measuring the direct and indirect costs and benefits of a project, economic analysis versus financial analysis, sensitivity versus economic and financial analysis.

In addition a LD II Urban Seminar was designed for Executive Council members for all six governorates as follows:

(ii) LD II URBAN SEMINAR

Topics covered included:

Overview of LD II Urban goal, purposes, methodology, achievements and constraints; third year plans for each LD II Urban component; Land Management, Solid Waste Management, Basic Services Delivery System, Programming and Budgeting, O&M, MIS and Training.

8.3.2 Organization/Management

Since Cairo, Alexandria, Giza, Qaliubia and Port Said Governorates had operating Directorate of Organization and Administration units at the start of LD II Urban, the decision was made to recognize their basic training function and integrate LD II Urban training within the Directorate of Organization and Administration and the Central Authority for Organization and Administration structure. In Suez, the Directorate of Organization and Administration was very weak; there was no training facility and there was a serious shortage of manpower in the governorate. Suez received extra technical assistance from LD II Urban and although the Training Coordinator and the Project Implementation Coordinator did an excellent job, Suez remains the only urban governorate in which there was little dialogue with the Directorate of Organization and Administration.

The training coordinator in each of the urban governorates acted as rapporteur (chairman) for the governorate training committee. In this way they coordinated all Training Block Grant and Directorate of Organization and Administration Training with LD II Urban training. The training coordinator and the secretaries general reviewed, monitored and evaluated every LD II training course conducted in their governorate. The training coordinator prepared all the documentation including attendance and logistics and prepared a final report certified by the secretary general for payment of expenses. Throughout LD II Urban, the Training Team staff designed course curricula, prepared course materials, recruited and hired course instructors and/or contracted with training firms. The LD II Urban Training Team also audited courses and assisted in the certification process. All fiscal responsibilities were managed by the LD II Urban Training Team.

8.3.3 Capacity Building/ Resource Mobilization

In several sections of this Final Report, the efforts to increase the capacity of the governorates to plan, monitor and evaluate in-service training courses was described. It is fair to note that four governorates (Cairo, Giza, Qaliubia and Alexandria) participated in the earlier NUS, and therefore had a five-year advantage in technical assistance over Suez and Port Said. In spite of that, Suez and Port Said were very responsive to their human resources training needs and, proportionate to their respective populations had the highest trainee/population ratios in the six governorates. This indicates that with technical assistance and financial resources, the governorates have the capacity to respond to their needs and to deliver high quality training courses.

Resource mobilization was reviewed in the context of using and building upon existing training resources rather than inventing new ones or bringing in new methods and materials. To that end, all LD II Urban training materials were developed in Egypt by local trainers or training firms. Materials for courses were first developed in Arabic, field tested and then translated for LD II Urban purposes into English. Local firms and local experts were recruited for both their technical skills and their adult education skills. Instructors had to fit the style of LD II Urban in addition to being technically competent in their fields. LD II Urban did not attempt to train instructors since Egypt is rich in talent; however, the Training Team staff went to great pains to find the right Egyptian instructor for each training role and reserved the right to not recommend a trainer who had not performed to the required standards.

By using Egyptian private firms in a competitive bidding process, LD II Urban also encouraged the development of the private sector. When LD II Urban started in 1988, only a few Egyptian firms could compete with expatriate firms in offering computer training; but a few

years later, dozens of qualified Egyptian companies responded to LD II Urban's Request For Proposals (tenders) and most were very competent in this field.

When LD II Urban started there were no training materials. Now there are sufficient materials in flexible formats to satisfy the governorates basic training material needs. For years to come, training centers should be able to conduct training workshops and conduct evaluation and audio visual presentations. When LD II Urban started, each governorate had its own training program. Now each governorate has learned the value of sharing ideas, and sharing the costs of training material development. The six governorates have experienced the benefits and the cost savings realized in using local resources.

8.3.4 Sustainability

Institutionalization of the LD II Urban training effort was an ongoing process. Since the first year of LD II Urban, training coordinators and committees in each governorate participated in reviewing, monitoring and evaluating every course offered in their governorate. Fortunately, most of the training coordinators were with LD II Urban throughout its life span; yet even when there were changes in governors, secretaries general, Directorate of Organization and Administration staff or training coordinators, the process remained reasonably consistent in both quality and quantity. The LD II Urban Training Technical Assistance Team faced great skepticism in Phase I (February - June, 1988) and long delays in training course approvals during the first year. Phase II training was held up by the Urban Local Development Committee to an almost critical point, as the six governorates could not come to understanding and consensus. Governorates at first resisted working together. However after the success of Phase II training (June 1988 - October 1988), the Urban Local Development Committee gave the six governorate training committees full responsibility for their training plans. Consequently, training decentralization was institutionalized during the 1990 -1992 period when the Urban Local Development Committee met only to standardize and update training policy. Training operations were left to the individual governorates. Interestingly enough after working independently, the governorates increased their intergovernmental sharing with little or no question about who was getting a larger share of the training funds. The LD II Urban Training Technical Assistance Team coordinated the activities of the six governorates while passing on responsibility for all aspects of training wherever possible.

The following indicators or tests, were defined to measure the sustainability of the Training component.

1. Has the training center been allocated and furnishings/equipment /support resources provided?
2. Is there a training coordinator or a governorate department (DOA) responsible for giving technical training advice to the governor?
3. Is there a training committee responsible for establishing training?
4. Is there a training needs assessment process in the governorate?
5. Is the LD II Urban Training Roster System operating in the governorate?
6. Are all training manuals for LD II Urban courses in the governorate?
7. Are training programs evaluated?

8. Are MLA staff adequately trained ?
9. Is funding of training adequate?
10. Are other training needs funded?

A value of one through five was assigned to each sustainability indicator, or test, based on an assessment scale (shown in Table 8.2). By adding up the values from each test, a total score was assigned which provided a comparative measure of the sustainability of training within the governorates. This is shown in Tables 8.1 and 8.2.

8.3.5 Major Issues

The six governorate training coordinators have agreed that the following conditions exist:

- 8.3.5.1 Level of Effort - LD II Urban trained 8,516 government officials in 519 courses for a total of 62,797 trainee days and, consequently, the governorate training coordinators agreed that LD II Urban has trained enough employees to satisfy the short-term needs of the governorate in LD II Urban-related areas.
- 8.3.5.2 Extension Period - Governorates have the trained staff and equipment to carry out LD II Urban-related training if funding assistance from a central or regional technical assistance group is given during November 1992 to September 1993.
- 8.3.5.3 Training Centers - Governorates have the capacity to use their training centers to accommodate Training Block Grant, Directorate of Organization and Administration, and LD II Provincial governorate training needs if some technical assistance is given during November 1992 to September 1993.
- 8.3.5.4 Ministry of Local Administration Strategy - There is no clear Ministry of Local Administration strategy for maintaining the high level of intensity of training and development under LD II Urban. The major question remains: Is there sufficient interest within the Ministry of Local Administration to build their capacity over the next year.

8.4 RECOMMENDATIONS

The LD II Urban Training component created a major investment in the development of local government training. The money, time and effort expended was carefully planned, monitored and evaluated. A training system that works for all six urban governorates is in place. The training system described in this Final Report is understood, is incorporated into the fabric of urban governorate training operations and is being considered at the Ministry of Local Administration level. Sustainability of this effort can be realized if the following recommendations are addressed:

8.4.1 Period November 1992 to September 1993

- 8.4.1.1 Training Block Grants - The urban governorates should use a major portion of their Training Block Grants to conduct LD II Urban training courses in offices where normal addition of new employees following attrition of existing employees, or

Table 8.1

TRAINING - SUSTAINABILITY TESTS TOTAL SCORES

INDICATOR	ALEX.	CAIRO	GIZA	PORT SAID	QALIUBIA	SUEZ	AVERAGE
1	3	3	3	3	3	3	3
2	3	3	3	3	3	3	3
3	4	3	3	2	2	2	2.5
4	3	3	1	1	1	1	2
5	5	5	5	5	5	5	4.8
6	4	4	4	4	4	4	4
7	5	5	5	5	5	5	4.2
8	2	2	2	2	2	2	2
9	2	2	4	2	2	2	2.3
10	1	1	0	0	0	0	0.6

TOTAL: 32 31 30 27 27 27 29

SUSTAINABILITY
PERCENTAGE: 64% 62% 60% 54% 54% 54% 58%

Table 8.2

TRAINING SUSTAINABILITY INDICATORS (Tests)

Scored Points

1.	Has training center been allocated and furnishings/equipment/support resources provided?	
-	No action taken.	0
-	Allocation of space and support resources under discussion	1
-	Space allocated	2
-	Space allocated and initial furnishings/equipment support provided	3
-	Training staff are actively budgeting for additional space and furnishings/equipment support resources to sustain operations	4
-	Office budgets have been approved for future space and furnishings/equipment support resources to sustain operations	5
2.	Is there a training coordinator or a governorate department (DOA) responsible for giving technical training advice to the governor?	
-	No	0
-	No, but need to be accepted in principal by governor	1
-	No, but job descript./organiz. proposals submitted to governor	2
-	Yes, position functioning informally	3
-	Yes, request made for CAO A approval	4
-	Yes, CAO A approval given	5
3.	Is there a training committee, responsible for establishing training?	
-	No action taken	0
-	Idea accepted in principle by governor	1
-	Committee members selected by governor but not convened	2
-	Committee meets occasionally	3
-	Committee is active and meets every quarter	4
-	Committee is very active and meets once a month or more	5
4.	Is there a training needs assessment process in the governorate ?	
-	No	0
-	Yes, but generally inefficient	1
-	Yes, but on request only	2
-	Yes, done quarterly with office head	3
-	Yes, prioritized by gov. training committee	4
-	Yes, prioritized by MLA	5
5.	Is the LD II Urban Training Roster System operating in the governorate?	
-	No	0
-	Under development	1
-	English version only	2
-	Fully Arabized	3
-	Governorate staff trained	4
-	Fully operational	5

Table 8.2 (Continued)

TRAINING SUSTAINABILITY INDICATORS (Tests)

		Scored Points
6.	Arc All training manuals for LD II Urban courses in the governorates?	
-	No	0
-	Planned but not implemented	1
-	Some available in the governorates	2
-	50 % of the training materials fully available	3
-	75 % of the training materials fully available	4
-	Yes, the governorate has all LD II Urban training materials	5
7.	Arc training programs evaluated ?	
-	No evaluations given	0
-	Very few evaluations given	1
-	Some evaluations given	2
-	Over 75 % of training courses have been evaluated	3
-	Comprehensive evaluation program prepared and actively pursued	4
-	All training fully evaluated	5
8.	Are MLA staff adequately trained?	
-	No training given	0
-	Very little training given	1
-	Support staff trained	2
-	Senior staff trained	3
-	Support staff completely trained	4
-	Senior staff completely trained	5
9.	Is funding of training adequate ?	
-	Practically no allocation	0
-	Allocation supports 20 % of need	1
-	Allocation supports 40 % of need	2
-	Allocation supports 60 % of need	3
-	Allocation supports 80 % of need	4
-	Yes	5
10.	Are other training needs funded?	
-	Practically no allocation	0
-	Allocation supports 20 % of need	1
-	Allocation supports 40 % of need	2
-	Allocation supports 60 % of need	3
-	Allocation supports 80 % of need	4
-	Yes.	5

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expansion of the work force have taken place; but only if the new employees clearly show performance gaps that can only be addressed by a formal training course.

- 8.4.1.2 Ministry of Local Administration - The Ministry of Local Administration should decide on which training courses, software and materials they expect to use from the LD II Urban, LD II Provincial and Training Block Grants. The Technical Assistance Contractor (TAC) for the proposed extension period should organize a series of regional workshops for all twenty-six governorate training committees to share materials and to establish the training facilities to be utilized in the future.

The Ministry of Local Administration should continue to build the skills of its central training staff to enable them to assimilate and manage all of the LD II Urban courses, materials and systems.

- 8.4.1.3 Organizational Development Workshops - A continuation of the Organizational Development Workshops should be encouraged, particularly in the new offices that were created as a result of LD II Urban such as MIS, OMED and LMU.

- 8.4.1.4 Suez and Qaliubia - The training administrations in Suez and Qaliubia are still experiencing some difficulties in their training administration and communication with their Directorates of Organization and Administration. Technical assistance to these two governorates is still required.

8.4.2 Period October 1993 to October 1998

- 8.4.2.1 Ministry of Local Administration - The Ministry of Local Administration's central training committee should standardize training policies in all governorates.

The Ministry of Local Administration should establish regional training councils representing greater Cairo, greater Alexandria, Canal Cities (Port Said, Ismailia and Suez) and the rest of Egypt. These regional training councils should consist of urban and provincial training advisors who will coordinate inter-governorate training activities, as well as provide technical assistance to the governorates and urban districts.

- 8.4.2.2 Training Funds - Each regional training council should develop a fund raising plan to meet the costs of training. This could include funds from central government, foreign grants, individual functions, and local fund raising.

The Ministry of Local Administration and the regional training councils should develop an annual reporting system as to how they achieved their training requirements.

At least LE 1,000,000 should be set aside each year for conducting ongoing TAC-related training in the six urban governorates.