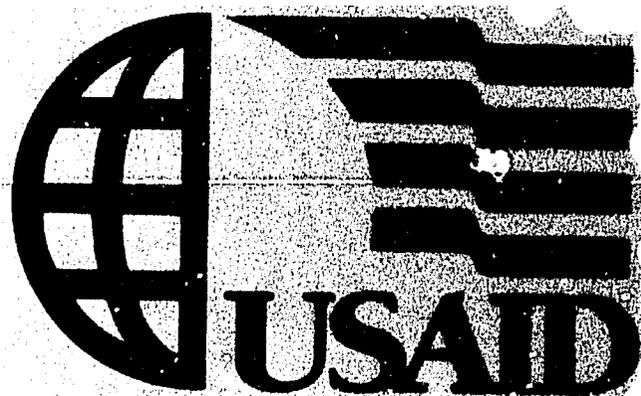


**United States
Economic Assistance
to
Egypt**



Status Report

September 1992

FD-1135-203

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to
Egypt**

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ABOUT THIS PUBLICATION

The USAID Status Report is published annually by the Program Development and Support (PDS) Directorate of USAID/Cairo. It contains descriptions of both active and completed USAID projects in Egypt. Completed projects are printed on blue paper.

Major contractors for each project are identified in the project descriptions. A complete list of current contractors is not included, but is available from the Office of Project Support at the USAID Mission.

A numerical listing of projects can be found in the Annex.

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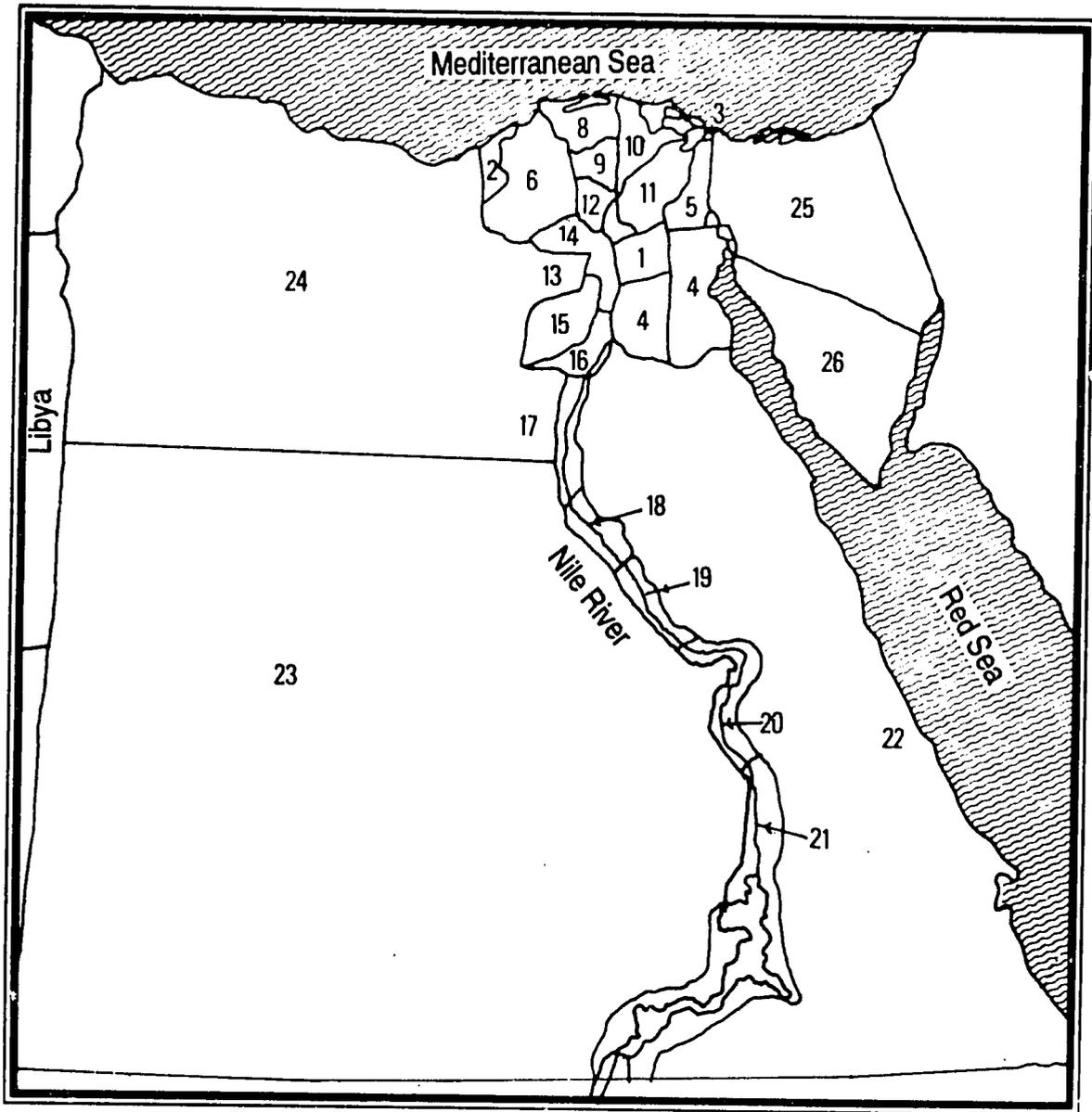
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I. OVERVIEW

GOVERNORATES OF EGYPT



GOVERNORATES AND THEIR CAPITALS

URBAN GOVERNORATES

1. Cairo - Cairo
2. Alexandria - Alexandria
3. Port Said - Port Said
4. Suez - Suez

LOWER EGYPT

5. Ismailia - Ismailia
6. Beheira - Damanhour
7. Damietta - Damietta
8. Kafr El Sheikh - Kafr El Sheikh
9. Gharbia - Tanta
10. Dakahlia - Mansoura
11. Sharkia - Zagazig
12. Menoufia - Shibin El Kom
13. Qalubia - Benha

UPPER EGYPT

14. Giza - Giza
15. Fayoum - Fayoum
16. Beni Suef - Beni Suef
17. Minya - Minya
18. Assiut - Assiut
19. Suhag - Suhag
20. Qena - Qena
21. Aswan - Aswan

FRONTIER GOVERNORATES

22. Red Sea - Hurghada
23. New Valley - Kharga
24. Marsa Matruh - Matruh
25. North Sinai - El Arish
26. South Sinai - El Tur

USAID IN EGYPT : AN INTRODUCTION

In 1975, when the USAID program began, Egypt faced several major problems. The economy was at a standstill; the physical infrastructure had deteriorated; technical and scientific ties and relationships with the West had broken down; agricultural productivity was low; and basic health and welfare services were poor.

In the beginning, USAID provided assistance to repair the Suez Canal; to expand electric power, water and wastewater, grain storage, telecommunications and port facilities; and to rebuild professional and institutional ties between Egypt and the United States. By the end of the 1970s, USAID had broadened its assistance to give greater attention to agriculture, health and basic education in order to improve the quality of life of people in the rural areas.

Throughout the eighties, USAID continued to fund projects in agriculture, health and basic education, infrastructure and local development. In addition, there was a movement towards a much greater emphasis on the role of the private sector in development. Programs were initiated to provide scarce credit to the Egyptian private sector for the purchase of necessary commodities and equipment from the U.S., and provide credit to small and micro enterprises.

The current USAID program in Egypt seeks to increase economic growth, improve the productivity and quality of life of Egypt's people, and strengthen democratic participation in Egyptian institutions and society. Policy reform continues to be the centerpiece of the USAID program, emphasizing structural adjustment and sectoral reform measures that support movement towards a freemarket economy led by the private sector.

Of the \$1 billion Egypt receives annually, \$815 million is allocated for the Economic Support Fund (ESF) assistance administered by USAID. The balance is provided as food aid through the U.S. Department of Agriculture. USAID has completed 118 projects since the program began. There are 60 active projects with annual disbursements of about \$900 million per year.

USAID assistance continues to better the lives of Egyptians by helping to provide dependable electricity, clean water, vastly improved health care, more schools, better telecommunications, modernization of village infrastructure, new agricultural technologies and greater access to agricultural inputs such as loans, seeds and fertilizer. All assistance, whether provided as cash, commodities or in project form, is used to support economic policy reform that will strengthen reliance on markets, encourage cost recovery and increase private investment and economic growth in Egypt.

PROGRAM IMPACT

AGRICULTURE:

- Since 1986, sectoral policy reform efforts have led to decontrol of 11 major food crops. The result is an increase of approximately 46 percent of cultivated land area with these crops and the production of approximately 36 percent more wheat, 26 percent more rice, 28 percent more maize.
- The Agricultural Credit Program has provided more than 1.7 million unsubsidized loans to small farmers since 1986.
- The formation of 1400 water user associations has given farmers a voice in water usage decisions.
- Over 17,000 obsolete irrigation structures have been replaced, affecting approximately 2 million farmers. It has increased the agricultural base by 46 percent in one area, and reduced water loss by 34% in another.

LOCAL DEVELOPMENT:

- Over 16,000 grants have been given to communities throughout Egypt to implement locally selected projects that provide basic services to their residents.
- Local government units have strengthened their role in development.
- Egyptian private voluntary organizations (PVOs) have received approximately 4,000 grants for local development.

EDUCATION:

- Over 1,900 schools have been constructed under our Basic Education Project, providing approximately 1 million children access to education.
- The availability of schools continues to increase female attendance and reduce dropout rates.
- Education policy and curriculum reforms in elementary schools have been initiated.
- Nearly 470 joint research activities between U.S. and Egyptian universities have taken place.

HEALTH:

- Since 1982, infant mortality rates have dropped by fifty percent due to Oral Rehydration Therapy and Immunization programs funded by USAID.
- Infant immunization coverage has now exceeded 80 percent.

POPULATION:

- The Total Fertility Rate (the average number of births per married woman of reproductive age), has declined from over 7 to 4.3 in the past decade.
- Contraceptive use by married women of reproductive age has increased by 100% over the past decade (from 23.8% in 1980 to 47% in late 1990).
- Information on the practice and proper use of contraception is regularly disseminated through television and radio.
- A National Population Strategy for 1992 to 2007 has been prepared by the National Population Council with USAID assistance.

ENERGY:

- Sectoral policy reform efforts, in cooperation with the World Bank, are leading to annual reductions in subsidies for utilities.
- We have financed the installation of over 2,500 megawatts of electricity, and the rehabilitation of an additional 2,500 megawatts amounting to over 40 percent of the total generating capacity of the country.

TELECOMMUNICATION:

- The first three phases of the telecommunications project modernized switching systems in ten exchanges improving and expanding telephone services in Cairo and Alexandria. Over 70,000 subscribers and over 480,000 telephone users will have access to improved telephone services due to the fourth phase of the telecommunications project.

ENVIRONMENT:

- Egypt's urban water and wastewater systems in Cairo, Alexandria and other major cities, which serve some 22 million Egyptians, have been rehabilitated and expanded.
- Raw sewage flooding in Cairo and Alexandria has stopped; discharge of sewage onto the beaches of Alexandria has also been reduced.
- Waterlogging and soil salinity are being reduced through proper irrigation practices.
- Pollution controls have been introduced in some of the nation's major industries.

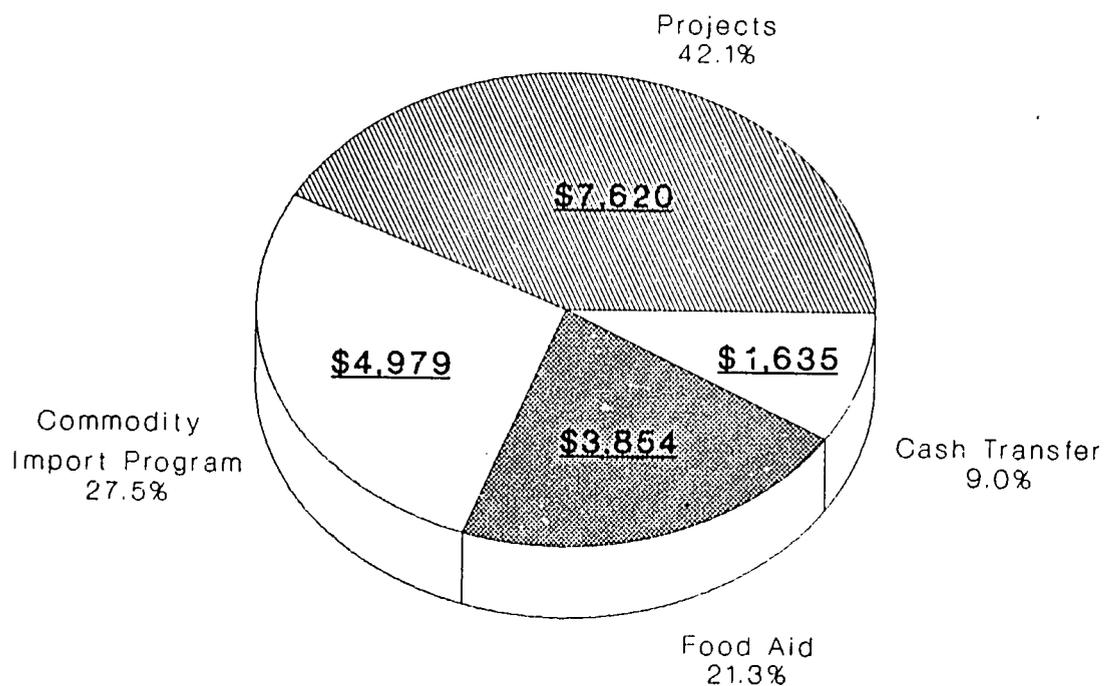
PRIVATE SECTOR:

- Since 1985, private sector imports of U.S. products have averaged \$4 to \$7 million per week, building trade linkages with U.S. exporters.
- The private sector Commodity Import Program (CIP) has broken the government monopoly on bulk commodity shipments, allowing the private sector to import agricultural commodities such as corn, soybeans, wheat and vegetable oil for the first time.
- Small and micro entrepreneurs receive un-collateralized, non-subsidized loans in metropolitan Cairo and Alexandria, utilizing private sector business organizations as intermediate credit institutions. So far there have been no defaults, and on the average 90 percent of the loans have been repaid when due.
- The new Export Enterprise Development Project introduces Egyptian producers to external markets and encourages Egyptian entrepreneurs to become more attuned to the needs of foreign markets and to the rigors of international competitive forces.

GOVERNANCE AND DEMOCRACY INITIATIVES:

Discussions between USAID and the Government of Egypt are under way to seek opportunities for strengthening Egypt's legal, elected representative and government institutions. Initial discussions have been positive, and assessments of priority program areas are being planned.

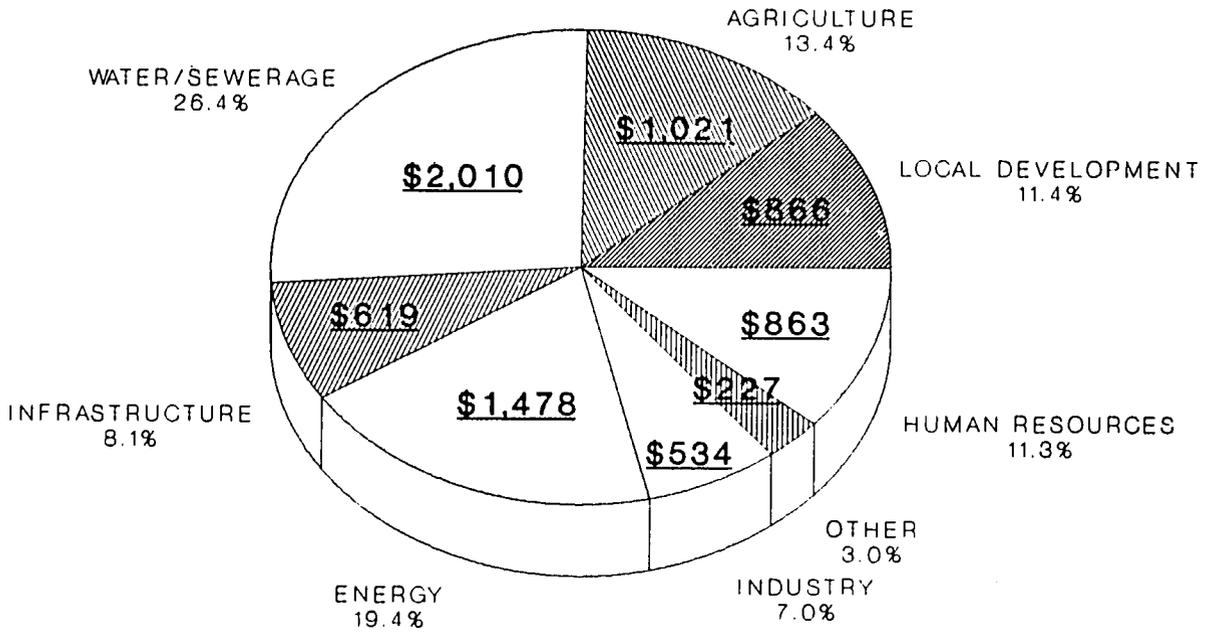
U.S. ECONOMIC ASSISTANCE TO EGYPT 1975 - 1992 (\$ MILLION)



TOTAL \$18,088

PROJECTS BY SECTOR

1975 - 1992 (\$ MILLION)



TOTAL \$7,620

II. PROGRAM ASSISTANCE

Program assistance refers to the portion of the USAID program that does not consist of specific projects. Usually, program assistance addresses broad economic goals, such as supporting the balance of payments. Program assistance to Egypt consists of (1) Public Law 480 (PL 480) Food for Peace; (2) commodity import programs; and (3) direct cash transfers.

PL 480 Food for Peace:

Title I: A Foreign Agricultural Service program for financing U.S. agricultural commodity imports to Egypt at concessional interest rates. USAID's involvement in this program has been discontinued.

Title II: A program that provided selected food commodities on a grant basis to improve the nutrition of targeted populations.

Title III: A completed program that assisted the Government of Egypt (GOE) through the provision of wheat and flour to finance programs for improving rural infrastructure and basic village services to the rural poor.

Commodity import programs finance government and private sector imports of raw materials, capital goods and consumables from U.S. suppliers.

Direct cash transfers to the Government of Egypt were initiated in 1984. These dollar grants assist in the relief of Egypt's balance of payments problems and support the Egyptian Government's efforts to undertake structural reform of the economy.

PUBLIC SECTOR COMMODITY IMPORT PROGRAM (CIP)

Purpose: To help Egypt meet the import requirements needed to sustain current levels of consumption, investment and production.

Description: Under the CIP program, grant or loan funds are allocated to government organizations to finance purchases of American made products and commodity-related services. Each recipient of funds justifies its specific import needs to the Ministry of International Cooperation, which controls the allocation process. Required import items must be identified in the organization's development plan and supported by local currency budgetary allotments. The buyer/importer makes an equivalent contribution in local currency to a special account when the allocation of U.S. dollars is approved and a tender is issued; if the local currency cannot be presented in cash, the buyer/importer must pay 25 percent down and agree to pay the remaining 75 percent in either five annual payments (for capital goods) or in two annual payments (for consumables, spare parts, etc.). Funds deposited in the special account are used to finance local costs of approved development activities. The program initially provided concessional loans to the Egyptian government, but grant funding has been provided since 1979.

<u>Current Status:</u>	Active
Duration:	Continuing since FY 75.
Funding to Date:	\$3.86 Billion

Accomplishments:

- Since initiation in 1975, funds provided under the program have financed the importation of a total of \$3.6 billion in U.S. commodities, including machinery, equipment, spare parts, raw materials, semi-finished goods and consumables.
- The CIP program has significantly improved Egypt's balance of payments situation.

Implementing Office: Office of Commodity Management and Trade (TI/CMT), ext. 3240.

PRIVATE SECTOR COMMODITY IMPORT PROGRAM (263-0201.01)

Purpose: To expand investment in productive private sector enterprises.

Description: The Commodity Import Program - Private Sector (CIP-PS) provides short and medium-term credit and foreign exchange to the private sector to finance the importation of goods and equipment from the U.S. The program is coordinated by the Ministry of International Cooperation, but primary implementation responsibility rests with 23 participating commercial banks.

<u>Current Status:</u>	Active
Duration:	FY 86 - FY 96
Approved Total Funding	\$985 Million
Funding to Date	\$1.3 Billion

Accomplishments:

- Over 750 Egyptian private sector importers have used resources made available under the current and previous CIP-PS program. Likewise, 1,400 U.S. manufacturers and suppliers from 46 states have exported 110 different commodities to Egypt under the programs. These commodities range from raw materials to food items to capital equipment.
- About 3,300 transactions valued at over \$775 million have been approved under the current Private Enterprise Credit Project. Transactions include irrigation systems, spares for agricultural spraying aircraft, copper wire and dental equipment.
- Many small farms benefitted from the program. More than 1,200 businesses with less than 50 employees have participated to date.
- Transaction approvals currently exceed \$3 million per week.

Implementing Office: Office of Commodity Management and Trade (TI/CMT), ext. 3240.

SECTOR POLICY ADJUSTMENT GRANT (263-0233)

Purpose: To provide foreign exchange to help Egypt stabilize its economy, promote sectoral economic policy reform, and relieve the balance of payments current account deficit.

Description: This program provides foreign exchange needed to import essential goods and services to help revitalize the Egyptian economy. This grant is a new instrument for providing assistance to ease the pain of adjustments that will ultimately eliminate the need for concessional assistance. Disbursements will be made after specific policy reform conditions have been met. This activity is the successor of the Cash Transfer program.

<u>Current Status:</u>	Active
<u>Duration:</u>	Allocated annually since FY 1984
<u>Funding to Date:</u>	\$1,434 Million

Accomplishments:

- USAID conducts cabinet-level dialogue on macroeconomic policy with the Egyptian Government. This has helped the Government of Egypt to clarify the nature of many of the economy's problems, consider alternative adjustment strategies and, in general, create a more open environment for economic policy formulation.
- USAID's policy dialogue with the government has been challenging, but not completely successful. Recent developments in the Egyptian Government's negotiations with the International Monetary Fund (IMF) and International Bank for Reconstruction and Development (IBRD) give some basis for cautious optimism in the realm of policy reform.
- During 1990, the Government of Egypt took major steps to reduce consumer subsidies, to liberalize controls over the marketing of rice and fertilizer, and to implement a program for privatization of state-owned economic enterprises.

Implementing Office: Economic Analysis Directorate (EAS), extension 3220.

PL 480 TITLE II

Purpose: (1) To reduce infant and maternal mortality and morbidity by providing nutrients to infants during their weaning period and to their mothers; and (2) to provide nutritious meals to young children at day care centers, orphanages, and to Bedouin families in the Sinai.

Description: Title II food was provided through two private voluntary organizations, *Catholic Relief Services* (CRS) and *CARE*. Child feeding programs included:

- A maternal and child health (MCH) program, which distributed baby foods, vegetable oil and milk to mothers and infants through MCH centers operated by the Ministry of Health.
- Other child feeding (OCF) activities, which provided nutritious foods to children through day care centers, orphanages, and directly to Bedouin families in the Sinai.
- The school lunch program (SLP), which, until FY 1985, provided a nutritious snack to improve the health status of school children in grades one to six and reduce school absenteeism.

The primary Egyptian implementing agent was a Government of Egypt interministerial committee responsible for receiving, warehousing and transporting commodities from the port of discharge to the feeding sites.

Current Status:	Completed
Duration:	FY 75 - FY 89
Total Funding:	\$179.0 Million

Accomplishments:

- Since FY 1975, a total of 406,015 metric tons (MTs) of oil, instant corn-soy-milk powder, bulgur, flour, wheat and non-fat dried milk, valued at \$179 million, have been delivered to recipients of the programs.
- The School Lunch Program reached an estimated 10.7 million children.
- The MCH program has reached an estimated 11.4 million infants and mothers. In FY 1987 the MCH program, under CRS administration, provided 8.4 thousand MTs of milk powder and vegetable oil to 630,000 mothers and infants through maternal child health centers located throughout Egypt.
- The OCF program reached an estimated 1,058,390 children and 1.6 million adult relief recipients. In FY 1987, through CRS and CARE, OCF provided 3.6 thousand MTs of food, including milk powder, bulgur wheat, flour and vegetable oil to 39.5 thousand children at day care centers and orphanages and to adult Bedouin family members.

Implementing Office: Program Office (PDS/P), extension 3216.

PL 480 TITLE III

Purpose: To assist the Government of Egypt (GOE) in mutually agreed upon programs in agriculture, rural development, family planning, health and nutrition.

Description: In 1979, the GOE, in cooperation with the U.S. Government, undertook a five-year Title III program to improve Egypt's rural infrastructure and provide basic village services to the rural poor. During the course of the program, USAID provided the GOE with food commodities, primarily wheat and flour, valued at \$71.952 million, under loan terms similar to those of the Title I program. These loans were "forgiven" as the local currency receipts from the commodity sales were earmarked by the GOE to provide financing to village councils for basic village services (BVS) such as potable water, village sanitation, village roads and other village infrastructure.

<u>Current Status:</u>	Completed
<u>Duration:</u>	FY 79 - FY 83
<u>Total Funding:</u>	\$72.0 million

Accomplishments:

- Increased the number of BVS projects implemented by village councils.
- Supported the GOE's policy of decentralization of development-oriented services by strengthening design, management and maintenance services at the local level.
- Facilitated technical improvements in the design and management of the BVS program.

In 1980, the Title III program was merged into the Basic Village Services Project (263-0103). The BVS project reinforced and strengthened local governments of 21 governorates so they could more effectively support agricultural and rural development.

Implementing Office: Office of Local Administration and Development, (DR/LAD), ext. 3324.

PRIVATE SECTOR PRODUCTION (PSP) CREDIT (263-0147)

Purpose: To increase investment in productive private sector enterprises.

Description: The project consists of two components. The first component, to provide short and medium-term credit to the Egyptian private sector to finance the importation of goods and equipment from the United States, was completed in 1986. Ten local private and public sector banks administered the loan program. The project also financed a \$1 million training and study component for upgrading the level of administration and management of participating banks.

The Egyptian implementing agent was the Ministry of International Cooperation.

<u>Current Status:</u>	Completed
Duration:	FY 82 - FY 92
Approved Total Funding:	\$88 Million
Funding to Date:	\$88 Million

Accomplishments:

- The project allocated \$87 million for credit activities. At the conclusion of the credit subactivity, 589 transactions valued at more than \$86.6 million had been approved. This program has established a good basis for continued and expanded Commodity Import Program (CIP) financing under follow-on projects.
- The credit program was used by a wide variety of companies to meet their production needs. A few examples are:
 - Union Carbide Egypt (a Law 43 Co.) - acetylene black manganese ore for manufacturing batteries.
 - Ramses International Aviation Transportation and Agribusiness Company - agricultural spray aircraft and spare parts.
 - Express Washing Machine Company - electric motors for washing machines.
 - Bishara Textile Manufacturers - dye stuffs and yarns.
- Participating firms were generally new, modern, growing and import-dependent. They varied greatly in size, type of product or service and type of commodity imported under PSP. Fifty-six percent of PSP firms, excluding traders, were in industry, 25 percent in agriculture and 19 percent in other sectors, primarily health. Fifty-five percent produced consumer goods and services and 45 percent produced intermediate goods.
- The project was extended for two years in June 1990 to help establish and formalize as an autonomous institution, the Banking Institute, Egyptian Bankers Training Institute (EBTI), a new banking industry policy research and training facility associated with the Central Bank of Egypt.

Implementing Office: Office of Finance and Investment (TI/FI), extension 3247.

III. PROJECT ASSISTANCE

III. PROJECT ASSISTANCE

A. IMPROVING INFRASTRUCTURE

Projects presented in this section support Egyptian government efforts to develop the necessary foundation for increased production and facilitate the delivery of community services. They support the rehabilitation, modernization and expansion of Egypt's economic infrastructure.

These projects build or improve **water and sewerage systems, energy generation and distribution and other infrastructure**, including telecommunications and transportation systems and urban upgrading. They also support development of improved infrastructure by village and urban local governments as part of the Egyptian government's **decentralization** program.

WATER AND WASTEWATER SECTOR PROFILE

A doubling of population over the past 30 years and the influx of rural people to the cities have put a severe strain on Egypt's ailing urban infrastructure, especially taxing water and wastewater facilities. They were outmoded and poorly maintained, and the inadequate number of operational wastewater facilities posed a significant health hazard. Lack of capital to invest in the rehabilitation and expansion of the systems, as well as inadequate institutional capabilities to plan, construct, operate and maintain them, further exacerbated the problem.

When USAID resumed its program in 1975, it addressed the urgent issue of raw sewage in the streets of Cairo, Alexandria and the canal cities of Ismailia, Suez and Port Said. A Memorandum of Understanding (MOU), signed by USAID and the Government of Egypt (GOE), committed \$1.2 billion to improve the urban water and wastewater structure and services in Cairo, Alexandria, the provincial cities of Minya, Fayuom, and Beni Suef. Given the poor condition of the water and wastewater systems, rehabilitation preceded expansion. Aside from improving the services in the existing areas, a major focus was to provide services to areas which had none by expanding the system of laterals and house connections, and by assisting communities in their efforts to upgrade their houses and community infrastructure.

USAID has provided \$2.2 billion to the water/wastewater sector, exceeding the target by \$1 billion. The present focus is to provide assistance for institutional support in operations and maintenance, provide financial and technical training for water and wastewater utilities and agencies, and assist the GOE to set up autonomous water/wastewater companies.

USAID's efforts in rehabilitating and expanding the ailing urban water and wastewater systems have made services more accessible and reliable, reaching approximately 22 million people, or over 44 percent of the total Egyptian population. In the 1970s, over a hundred sewage flooding incidents occurred daily in the streets of Cairo alone. Today the streets are practically free of such flooding. USAID has also been the major catalyst in raising the water tariff rates almost eightfold, so that the government's aim of meeting all operations and maintenance and debt service costs can be more easily accomplished. With USAID assistance, the first water/wastewater Training Center was opened in July 1991; approximately 1000 operators and technicians have received training.

ALEXANDRIA WASTEWATER SYSTEM EXPANSION (263-0100)

Purpose: To alleviate the serious health problems in the city of Alexandria resulting from waterborne diseases caused by sewage flooding in residential areas and disposal of raw sewage in recreational beach areas.

Description: This project finances the design, construction and start-up of a sewerage development program. The project includes the following activities:

- A review and analysis of the 1979 city master plan.
- Management advisory services to the Alexandria General Organization for Sanitary Drainage (A/GOSD).
- Operation and Maintenance training.
 - Sewerage project design services.
 - Construction engineering services.
 - Construction of sewerage facilities.
 - Provision of related equipment, spare parts and supplies.

The primary Egyptian implementing agent is A/GOSD.

<u>Current Status:</u>	Active
Duration:	FY 79 - FY 94
Approved Total Funding:	\$390.0 Million
Funding to Date:	\$388.4 Million

Accomplishments:

- The Wastewater Consultants Group (WWCG), consisting of *CH2M Hill* and *Metcalf and Eddy Inc.*, has completed all design activities. WWCG continues its construction management role.
- The construction of four pump stations by *Fischbach-Moore-Oman International* and two by *Perini Int.* are finished. The construction of the sewerage tunnels by *McLean-Grove* is about 90 percent complete. The use of state-of-the-art technology allowed the majority of the tunnelling work to be done underground with minimal disruption to roads and traffic. Over two-thirds of the work to expand and upgrade the East and West Treatment Plants by *Fru-Con Construction* is complete. Only two contracts remain to be completed for construction: Undercrossings and the Sludge Management Facility. The competition of these two contracts is scheduled in late 1993.

Implementing Office: Office of Urban Administration and Development (DR/UAD), ext. 3318.

PROVINCIAL CITIES DEVELOPMENT (263-0127 and 263-0161.03)

Purpose: To help three provincial city governments (Fayoum, El Minia and Beni Suef) effectively plan, budget, build and maintain urban infrastructure, and improve the water and wastewater systems.

Description: The project finances technical assistance to the three provincial city governments and provides for operating and maintaining improvements in each city. Components of this project include design-build contracts for a) three water treatment plants, with a supporting facility in each city, and b) selected urban infrastructure project, particularly water and sewage systems. The water and sewage projects emphasize improvement and extension of existing facilities. The Egyptian implementing agents are the Project Steering Committee comprised of the mayors and governors of the three provincial cities and governorate, along with the National Organization for Potable Water and Sanitary Drainage (NOPWASD) and the Ministry of Planning (MOP).

<u>Current Status:</u>	Active
Duration:	FY 81 - FY 94
Approved total Funding:	\$110 Million
Funding to Date:	\$110 Million

Accomplishments:

- The U.S. firm *Wilbur Smith and Associates* has provided technical services and training to the three city governments in the development, financing and maintenance of urban infrastructure and public services.

- A major design-build contract for three water treatment plants of 300 liters per second, nine elevated tanks with a capacity of about 4,000 cubic meters, and related work in the three cities was signed in June 1988 between NOPWASD and *L.A. Water* for a total value of \$53 million and LE 13 million. The project will serve an estimated population of 800,000. Construction management of the design/build contract is by *Montgomery/Harza*. Construction of the ground water reservoirs is underway at all three sites.

- The local governments are engaging design consultants and construction contractors to design and build about 160 kilometers of water and wastewater lines and to rehabilitate existing pumping stations. So far 270 contracts for these subprojects have been awarded and over half have been completed. Subproject financing is through Fixed Amount Reimbursement (FAR) procedures.

Implementing Office: Office of Urban Administration and Development (DR/UAD), extension 3750.

CAIRO SEWERAGE II (263-0173)

Purpose: To expand the Cairo sewage collection system into the largely unsewered areas on the west bank of the Nile and to increase the capacity of the associated treatment plant.

Description: This project finances the rehabilitation of the 330,000 cubic meter capacity Zenein treatment plant and the construction of a 400,000 cubic meter capacity plant at Abu Rawash. Nearly 20 kilometers of culverts and eight pumping stations will connect the main pumping stations at Boulak and the Pyramids to these treatment plants. The project will finance the construction of sewers in the previously unserved areas of Embaba and the Pyramids using Egyptian contractors. Training in management and operations will be provided to the Cairo General Organization for Sanitary Drainage (CGOSD).

The Egyptian implementing agent is the Cairo Wastewater Organization (CWO).

Current Status:	Active
Duration:	FY 84 - FY 94
Approved Total Funding:	\$816.0 Million
Funding to Date:	\$729.6 Million

Accomplishments:

- Construction of the culverts and six pumping stations by *Fru-Con Construction Corporation* and *American International Contractors* was completed in 1990.
- Construction of two stage pumping station at Zenein treatment plant by *Sadelmi/Raymond* was completed in 1988.
- An Egyptian Contractor is constructing a seven-kilometer sewer system to relieve pressure on the Giza pumping station.
- The rehabilitated Zenein Treatment Plant will handle 330,000 cubic meters when finished by *ABB SUSA* in December 1990. Construction of the Abu Rawash Treatment Plant started in April 1990 by *ABB SUSA*, and is completed.
- *Harbert/Jones J.V.* completed construction of collectors and sewers in Embaba and Mohandeseen in March 1992 and is constructing collectors in the Pyramids area which are 20% complete.
- Contracts in the Pyramids, Zenein and Embaba areas have been awarded by CWO to local contractors for sewer construction.
- Training operations continue with the start of a program for the operation and maintenance for pumping stations.

Implementing Office: Office of Urban Administration and Development (DR/UAD), ext. 3318.

CANAL CITIES WATER AND WASTEWATER II (263-0174)

Purpose: To further improve the delivery of water and wastewater services in the Canal Cities of Port Said, Ismailia and Suez.

Description: This project is a follow-on to the Canal Cities Water and Sewerage Systems (263-0048), which financed the construction of sewage collection and water distribution systems in the three cities. This project will provide wastewater treatment facilities and expansion of water supply. The projects together serve about two million people.

The project includes three major activities: (1) the construction of new wastewater treatment facilities in the three Canal Cities, (2) expansion of the city of Port Said water supply source, and (3) institutional development and training to insure proper management, operation, and maintenance.

The Egyptian implementing agents are the Suez Canal Authority (SCA) and the National Organization for Potable Water and Sanitary Drainage (NOPWASD).

<u>Current Status:</u>	Active
Duration:	FY 87 - FY 97
Approved Total Funding:	\$380.0 Million
Funding to Date:	\$234.4 Million

Accomplishments:

- A consultant partnership of *Black & Veatch International, James M. Montgomery, Dames and Moore* and the Egyptian firm *Sabbour* is providing Construction Management Consultant (CMC) services to the project. The CMC has completed an Operations & Maintenance (O&M) Cost Study, designed to show whether tariffs meet O&M costs. Also, the CMC provided USAID the final reports for the Environmental Assessments for Suez, Ismailia and Port Said. CMC assisted NOPWASD in the award process for the first design-build (D/B) contract for Suez WWTP to *ABB SUSA*. CMC completed evaluation of the technical proposals for the second D/B contract for Ismailia WWTP. CMC issued the IFB for the third D/B contract for Port Said WWTP.

- *Metcalf & Eddy International Inc.* has the contract to work on the technical assistance services starting June 1992 for five years. The contractor has finished a very important task by issuing the report on the proposed solution of water and wastewater organizational issues in the Canal Cities. This report is being discussed among GOE officials and USAID offices as well.

Implementing Office: Office of Urban Administration and Development (DR/UAD), ext. 3320.

WATER AND WASTEWATER INSTITUTIONAL SUPPORT (263-0176)

Purpose: To enhance the capability of the Ministry of Housing and Public Utilities (MHPU) and its executive agency, the National Organization for Potable Water and Sanitary Drainage (NOPWASD), in meeting municipal water and wastewater needs throughout Egypt.

Description: The project consists of three main components:

- Technical assistance to the MHPU and NOPWASD through long-term and short-term advisors to improve management, planning, budgeting, training and regulation of the water and wastewater sector.
- Assistance to NOPWASD and several municipalities in training personnel for the start-up operations of the water and wastewater treatment plants.
- General sector support through the provision of training aids and publications, spare parts, microcomputer hardware and software and applied research grants to academic institutions.

The primary Egyptian implementing agents are MHPU and NOPWASD.

Current Status: Active

Approved Total Funding: \$15.0 Million
Funding to Date: \$15.0 Million

Accomplishments:

- Operations and maintenance training for the municipalities has begun. Further assistance will be provided to the municipalities through the Edusystems contract.
- NOPWASD selected Boyle Engineering Corporation and National Education Corporation to provide technical assistance to NOPWASD AND MHPU through a 30-month contract, which was completed on Dec. 31, 1991.
- NOPWASD selected Edusystems to provide technical assistance for 2 years for the full operation of Damnhour Training Center; this contract will run until June 1994.

Implementing Office: Office of Urban Administration and Development (DR/UAD), ext. 3318.

CAIRO WATER SUPPLY II (263-0193)

Purpose: To rehabilitate and expand the Cairo central city water transmission and distribution system.

Description: This project involves the installation or rehabilitation of 53 kilometers of distribution and transmission pipe, the construction of four ground level concrete reservoirs, and the rehabilitation of four pumping stations. Following the recommendations of the Cairo Water Supply I project (263-0038), the institutional capacity of the General Organization for Greater Cairo Water Supply (GOGCWS) to operate and maintain the entire water supply system of Greater Cairo will be strengthened. The Egyptian implementing agent is the GOGCWS.

<u>Current Status:</u>	Active
Duration:	FY 88 - FY 96
Approved Total Funding:	\$104.0 Million
Funding to Date:	\$ 96.0 Million

Accomplishments:

- *CH2M-Hill*, under the Technical Cooperation and Feasibility Studies Project (263-0102), has produced an engineering study to upgrade the Rod El Farag water distribution system.
- *James M. Montgomery (JMM)*, under a host country contract, is providing services required for the construction of a central water quality laboratory, procurement and calibration of equipment, technical assistance, and training of laboratory staff. JMM has mobilized and construction is underway.
- *Morrison Knudsen Corporation (MK)*, under two host country contracts, has started the construction of four prestressed concrete water reservoirs with a total capacity of 120,000 cubic meters and 19 kilometers of ductile iron transmission pipe lines.
- *CH2M-Hill* under a direct contract with USAID is providing construction management services on the two construction contracts with MK.
- GOGCWS and *Black and Veatch International (BVI)* are currently negotiating a host country contract for technical assistance to upgrade the institutional capacity of GOGCWS to operate and maintain the Cairo Water Supply System.

Implementing Office: Office of Urban Administration and Development (DR/UAD), ext. 3321.

CAIRO WATER SUPPLY I (263-0038)

Purpose: To rehabilitate and expand the southern portion of the Rod El Farag Water Treatment Plant in the city of Cairo.

Description: The project involved increasing the capacity of the Rod El Farag water treatment plant from 200,000 cubic meters per day to a rated capacity of 650,000 cubic meters per day; strengthening the management capability of the General Organization for Greater Cairo Water Supply (GOGCWS); and construction of about six kilometers of transmission pipelines. *ES Parsons* was the construction supervision engineer with construction performed by *Howard-Harbert-Jones (HHJ)*. *James M. Montgomery (JMM)* supplied management consultant services. The Egyptian implementing agent was the GOGCWS.

<u>Current Status:</u>	Completed
<u>Duration:</u>	FY 77 - FY 89
<u>Total Project Funding:</u>	\$97.4 Million

Accomplishments:

- The rehabilitation of the Rod El Farag treatment Plant by HHJ was completed in September 1986. ES Parsons provided training to GOGCWS personnel.
- The completed project produces potable water and provides service to about three million people.
- JMM completed its study of organizational improvements for GOGCWS, such as the design of a computerized financial system, inventory control system, and a comprehensive training program for management, technical, clerical, and operations and maintenance personnel. JMM also made recommendations for improving the planning and engineering activities of the organization and water waste reduction. These recommended improvements will be implemented in the Cairo Water Supply II Project (263-0193).

Implementing Office: Office of Urban Administration and Development (DR/UAD), ext. 3318.

CANAL CITIES WATER AND SEWERAGE SYSTEMS (263-0048)

Purpose: To provide urgently needed improvements to the water and sewage systems of the three Suez Canal cities of Ismailia, Port Said and Suez.

Description: The project financed the rehabilitation and repair of water treatment plants, water distribution systems and sewage collection systems, as well as the expansion of sewage collection and water treatment and distribution systems to rapidly developing areas. The project also extended a water pipeline (the southwest transmission main) to the Suez Cement Company (SCC).

The engineering consultant was *Canal Cities Consultants*. The construction contractor was *Harbert & Jones*. The Egyptian implementing agents were the *Suez Canal Authority (SCA)* for water improvements, and the *National Organization for Potable Water and Sanitary Drainage (NOPWASD)* for sewerage system improvements.

<u>Current Status:</u>	Completed
<u>Duration:</u>	FY 78 - FY 88
<u>Total Project Funding:</u>	\$169 Million

Accomplishments:

- Construction of water treatment plants and water distribution systems is complete in Suez, Ismailia and Port Said.
- Construction of wastewater systems by the U.S. contractor is complete.
- Construction of the southwest transmission main to the Suez Cement Company is complete and the pipeline is fully operational.
- Operation and maintenance assistance was satisfactory in all three cities at the close of the project. This assistance will enable wastewater departments in the cities to manage, operate and maintain Phase I facilities.

Implementing Office: Office of Urban Administration and Development (DR/UAD), ext. 3318.

ALEXANDRIA SEWERAGE I (263-0089)

Purpose: To upgrade public health conditions in Alexandria by improving, expanding and developing wastewater collection and disposal facilities.

Description: This completed project initiated the rehabilitation of the existing wastewater system in Alexandria. It established an improved collection and disposal system for solid wastes and toxic materials; cleaned existing sewers; repaired and replaced sewer lines; extended service into the Ras El Soda area; and imported selected sewer maintenance materials and equipment.

The primary Egyptian implementing agent was the Alexandria General Organization for Sanitary Drainage (AGOSD). *Camp Dresser and McKee* was the primary contractor.

<u>Current Status:</u>	Completed
Duration:	FY 77 - FY 84
Total Project Funding:	\$14.6 Million

Accomplishments:

- Three of the project's components were completed by the project's termination in FY 1984, while six are being completed under the Alexandria Wastewater System Expansion project (263-0100).
- Project components completed include:
 - (1) Repair and cleaning of existing sewers.
 - (2) Import of maintenance materials equipment.
 - (3) Design of sewer system expansion upgrading.
- Project components continuing under Project (263-0100) include:
 - (1) Expansion and upgrading of collection system.
 - (2) Construction and engineering for Sporting and Ras El Soda Pump Stations.
 - (3) Construction and engineering for additional pump stations.
 - (4) Construction and engineering for expansion and upgrading of two wastewater treatment plants.
 - (5) Construction and engineering for sludge management facilities.
 - (6) Operations and maintenance assistance for all newly constructed/rehabilitated facilities.

Implementing Office: Office of Urban Administration and Development (DR/UAD), ext. 3318.

CAIRO SEWERAGE I (263-0091)

Purpose: To rehabilitate and expand the Cairo Sewerage System.

Description: The project rehabilitated about 50 pumping stations; constructed collection system sewers; purchased pump stations and sewer cleaning equipment; drafted design plans for the rehabilitation of the Zenein Treatment Plant; developed a pilot program for unsewered areas; and set up a training program for the Cairo Wastewater Organization.

AMBRIC, a consortium of U.S.-British engineering firms, designed and supervised the project. Construction was performed by *Howard-Harbert-Sadelmi*. The Egyptian implementing agent was the Cairo Wastewater Organization (CWO).

<u>Current Status:</u>	Completed
Duration:	FY 78 - FY 88
Total Project Funding:	\$129 Million

Accomplishments:

- The project rehabilitated five major pumping stations and 90 subsidiary pumping stations and constructed six new stations and 27 kilometers of force and gravity mains at 27 different locations. The rehabilitation work reduced sewage flooding caused by pumping station malfunction and clogged sewer pipes. Out of 67 neighborhoods previously subject to chronic flooding, 65 percent now report no incidents and 83 percent no major incidents.
- *AMBRIC* completed designs for the four additional pumping stations on Rhoda Island and Tebeen, and for the renovation of the Zenein treatment plant. The work is being carried out under the Cairo Sewerage II Project (263-0173).
- A pilot program for unsewered areas demonstrated several low-cost mechanisms for sewage disposal in the low-income areas, however CGOSD has not accepted any of them for broader use.
- Residual funds (about \$6 million) were used in FY 1987 to partially fund the Zenein sewage treatment plant rehabilitation. The balance of required funding for this contract comes from project 263-0173 (Cairo Sewerage II).
- A sewer cleaning activity and a training program in operation and maintenance of the pump stations are completed.

Implementing Office: Office of Urban Administration and Development (DR/UAD), ext.3318.

ENERGY SECTOR PROFILE

Energy use has grown rapidly in Egypt, revolutionizing the quality of life of most Egyptians and increasing production in the workplace. Consumption of natural gas and petroleum products has grown by 12 percent and electricity consumption by six percent annually since the mid-80s. Peak demand is growing at less than 5 percent over the same period. This expansion in energy use reflects rapid economic growth, increasing urban and rural electrification, introduction of energy-intensive industries and heavy subsidization of energy prices. Today, an estimated 90 percent of the population has access to electricity. While long-term increases in energy use normally accompany economic development, current consumption levels are excessive as a result of price subsidies. These subsidies have encouraged inefficient use of energy, which threatens the country's current and potential status as an oil exporter.

The Government of Egypt (GOE) gives high priority to increasing electric power generation and improving the transmission and distribution systems. The GOE acknowledges the need to reform energy pricing policies to prevent the wasteful and inappropriate use of energy. The GOE plans to develop and expand various energy sources, and increase petroleum output to draw additional foreign exchange. To maximize petroleum exports, existing and new generation systems are being shifted to natural gas, a resource which was previously unexploited or wasted.

The GOE has embarked on a program to reduce subsidies by mid-1995. Progress over the past four years has been on track. The average price of electricity is equal to 70 percent of its economic price. USAID's policy is to relate funding levels for capital assistance to electricity projects to the progress of achieving targeted economic pricing levels.

Assistance to the energy sector is a part of USAID's overall strategy to assist the GOE in rehabilitating, modernizing and expanding the country's capital infrastructure base. Between 1975 and 1992, USAID provided over \$1.6 billion in project and commodity assistance to support the GOE in the development of electric power. Power generation capacity has grown rapidly. Total installed capacity increased from 3,789 megawatts (MW) in 1976 to nearly 12,000 MW in 1992. USAID assistance also contributed to the installation of 2,500 MW of additional generating capacity -- or nearly 20 percent of the total installed capacity in Egypt and to the rehabilitation of an additional 3,000 MW of Egypt's generating capacity. Current projects in the energy sector emphasize improvements in the efficiency of the power system, a more rational price structure, energy policy planning, renewable energy technologies and energy conservation.

ENERGY CONSERVATION AND EFFICIENCY (263-0140.03)

Purpose: To promote and accelerate the adoption of improved commercial technologies, processes and practices for saving energy and increasing energy efficiency and reducing energy related environmental pollution. To improve the capabilities of Egyptian institutions in promoting and implementing energy-saving, pollution-reducing, and productivity-enhancing investments.

Description: The project will fund about 60 applications of energy-efficient technologies and practices in both private and public sector facilities. About 1,250 engineers and other personnel from the Development Research and Technological Planning Center (DRTPC), the Tabbin Institute of Metallurgy (TIM), and the Federation of Egyptian Industries (FEI) will undergo training. The primary Egyptian implementing agents are DRTPC, TIM and FEI.

<u>Status:</u>	Active
Duration:	FY 88 - FY 96
Approved Total Funding:	\$49.5 Million
Funding to Date:	\$21.0 Million

Accomplishments:

- DRTPC and TIM, with management and technical assistance from *Overseas Bechtel* and *RCG/Hagler Bailly*, have prepared 39 feasibility studies and signed contracts for 12 technology applications, six each in private and public sectors.
- The Ramses Hilton hotel is installing an energy management system that will reduce lighting, air-conditioning and water heating costs by up to 20 percent, Furthermore, by tuning its boilers reduced energy use by 3.5 percent and emissions of hydrocarbons and NO by 24 percent and 41 percent, respectively.
- Asfour Glass Company followed a project consultant recommendation to repair the main glass melting furnace and, as a result, is now waving energy worth about \$42,000 per year.
- Over 100 private sector companies have expressed formal interest in the project and over 1250 Egyptians have attended energy conservation workshops.
- Three private companies, 7-UP Bottling, Giza Cables, and Arab Contractors installed power factor equipment and now are saving energy worth over \$150,000 per year.

Implementing Office: Office of Environment, (PDS/ENV), extension 3318.

RENEWABLE ENERGY FIELD TESTING (263-0123.02)

Purpose: To strengthen Egyptian public and private sector capability to design, procure, install, operate, maintain and evaluate renewable energy technologies that have potential for commercial use throughout Egypt.

Description: The project has three major components:(1) to develop a data base and associated information system on renewable energy systems (solar, wind, and photovoltaic) that can be readily used by public and private sectors to analyze and evaluate renewable energy technologies; (2) to design, install, operate and maintain the systems; and (3) to conduct a series of field tests to demonstrate commercially available technologies in Egypt.

The prime technical assistance contractor was *IDEA*. The primary Egyptian implementing agency is the New and Renewable Energy Authority (NREA) of the Ministry of Electricity and Energy (MOEE).

<u>Current Status:</u>	Active
Duration:	FY 82 - FY 92
Approved Total Funding:	\$24.1 Million
Funding to Date:	\$12.8 Million

Accomplishments:

- *IDEA* established a Renewable Energy Information System at NREA and trained staff in its operation and maintenance.
- The poultry plant in Heliopolis is demonstrating a large solar heating and energy conservation system designed and constructed by *E.A. Mueller*. NREA designed a similar field test for a plant in Helwan and currently is analyzing construction bids.
- In a remote fishing site, *Solarex* built a photovoltaic ice plant capable of producing six tons of ice per day.
- Winson constructed four 100 KW wind turbines at Ras Gharib on the Red Sea Coast, an area with a very attractive wind resource. *Burns and Roe* completed a prefeasibility study for construction of large scale wind power plants along the Red Sea.
- Implementing Office: Office of Environment, (PDS/ENV), extension 3318.

**REHABILITATION AND MODERNIZATION OF THE
ASWAN HIGH DAM HYDROELECTRIC POWER STATION
(263-0160)**

Purpose: To enhance the reliability of the Aswan High Dam's electrical generating capacity.

Description: This project finances the rehabilitation and modernization of the 12 hydro-turbine generators of the Aswan High Dam and the replacement of protective relays on the 500 kilovolt (KV) transmission line. Replacement of the 500 KV circuit breakers and control instrumentation may be undertaken if the available funding is adequate. Since 10 turbines must remain in operation at all times to meet the current demand for power generation, the project replaced two turbines each year for six years.

Technical assistance during installation, testing and start up is provided by the *U.S. Bureau of Reclamation*. *Voith-Hydro* (formerly *Allis Chalmers*) is the U.S. turnkey contractor and manufacturer of the turbines. The primary Egyptian implementing agent is the *Egyptian Electricity Authority (EEA)*.

<u>Current Status:</u>	Active
Duration:	FY 82 - FY 92
Approved Total Funding:	\$140 Million
Funding to Date:	\$140 Million

Accomplishments:

- Replacement of all 12 runners was completed in December 1991.
- Replacement of protective relays in the two 500 KV transmission lines between the High Dam and Cairo was completed in November 1991.
- Replacement of the 10-500 KV circuit breakers began in mid 1992 and will be completed by mid 1993.
- Contract for rehabilitation of gates will be awarded and signed in mid 1992 with all work completed prior to April 1995.
- EEA operations and maintenance staff have attended training programs at the manufacturing plants covering turbine runners, governors, relay systems and 500 KV circuit breakers.

Implementing Office: Office of Power and Telecommunications (DR/PT), extension 3370.

ALEXANDRIA ELECTRICAL NETWORK MODERNIZATION (263-0194)

Purpose: To improve selected areas of the electrical distribution network serving Alexandria and modernizing the control of Alexandria's subtransmission and distribution systems.

Description: The project addresses two areas of Alexandria's electrical distribution network:

- Rehabilitation of the existing distribution network by the installation of 250 kilometers of 11 kilovolt (KV) underground cables, twenty 11KV distribution points, and by the renovation of 600 distribution transformer points and 17,000 service connection boxes.
- Modernization of the control and operation of the 66KV subtransmission network. This will be achieved by the installation of a regional control center and training in operation and maintenance.

The primary Egyptian implementing agents are the Egyptian Electricity Authority (EEA) and the Alexandria Electricity Distribution Company (AEDC) of the Ministry of Electricity and Energy (MOEE).

<u>Current Status:</u>	Active
Duration:	FY 89 - FY 97
Approved Total Funding:	\$50.0 Million
Funding to Date:	\$50.0 Million

Accomplishments:

- Design of Rehabilitation of the Electrical Distribution System is 97% complete.
- Construction of Electrical Distribution System is 11.5% complete (as of August, 1992).
- Twelve people have completed training on the AUTO-CAD (Computer-aided-drafting) System.

Implementing Office: Office of Power and Telecommunications (DR/PT), extension 3378.

POWER SECTOR SUPPORT (263-0215)

Purpose: To support past and promote future continued Government of Egypt (GOE) progress in reducing electricity sector subsidies and in making other energy sector policy changes by providing capital infrastructure incentives to the GOE.

Description: The following infrastructure programs will add generating capacity, rehabilitate existing generation facilities, and increase the use of natural gas as a fuel for generating electricity.

- Installation of a gas turbine, a steam turbine, and a heat recovery system to the Cairo South Generating Plant increasing the plant capacity by 150 megawatts (MW).
- Modernization of the boilers and turbine generators of the Cairo West Thermal Power Station and modification of the boilers so that natural gas can be used as an alternative fuel. Plant output will increase from 300 MW to 350 MW.
- Refurbishment of three gas turbine generating units and their installation in Hurgada to supply energy to the Hurgada-Safaga coastal region.
- Expansion of EEA's microwave communication system from Cairo to the Suez area.
- Upgrading of the National Energy Control Center.
- Provision of spare and replacement parts and work equipment.
- Completion of electricity pricing strategy and loss reduction studies.
- Design and construction of a 2-600 MW thermal power station at El Kureimat.

The primary Egyptian implementing agent is the Egyptian Electricity Authority (EEA)

<u>Current Status:</u>	Active
Duration:	FY 89 - FY 99
Approved Total Funding:	\$431 Million
Funding to Date:	\$431 Million

Accomplishments:

- The Hurgada gas turbine installation was completed in January 1992.
- The rehabilitation of the first boiler and turbine generator at Cairo West was completed in May 1992.
- Electric Pricing Study was completed in January 1992.

Implementing Office: Office of Power and Telecommunications (DR/PT), extension 3370.

SHOUBRA EL KHEIMA THERMAL POWER PLANT (263-0030)

Purpose: To increase the generation capacity of the thermal power plant at Shoubra El Kheima in Cairo.

Description: The project, now completed, consisted of the design and construction of a 1260 megawatt (MW) thermal power plant at Shoubra El Kheima in Cairo and necessary transmission connections to the bulk transmission network. The plant includes four steam generating units and is connected to the Egyptian Unified Power System. The project was supported by a USAID grant, as well as the Egyptian Government, World Bank, African Development Bank, Export Import Bank, Italy, France, Canada, and Japan. USAID financed the following for the four power units:

- (a) Design and construction management by *Overseas Bechtel Inc.*
- (b) Four turbine generator sets provided by *Westinghouse Elect. Co.*
- (c) Main system pumps provided by *Transamerica DeLavat, Inc.*
- (d) Condensers, heaters and accessories provided by *Southwest Engineering Co.*
- (e) Panels and controls provided by *Westinghouse International Power Systems.*

USAID also financed reinforcing steel (*Owen Steel Company*) and water treatment systems (*Inflco Degremont, Inc.*) for Unit Four. The Egyptian implementing agency was the Egyptian Electricity Authority (EEA).

<u>Current Status:</u>	Completed
Duration:	FY 79 - FY 91
Approved Total Funding:	\$263 Million
Funding to Date:	\$263 Million

Accomplishments:

- Construction of all four generating units is complete. The first unit was synchronized to the EEA system in September 1985, and the fourth in September 1988; all four units have operated reliably at full design.
- The *Overseas Bechtel, Inc.* contract included consulting services for the 500 kilovolt (KV) transmission connection of the plant to the adjacent transmission system and the transmission extension from Shoubra El Kheima to the Tebbin substation in southern Cairo by way of Abu Zabal.
- In addition to receiving long-term training on the design, operation and maintenance of the AID financed equipment and control systems being installed on the four units, the EEA operators and maintenance staff for Unit 4 completed "on-the-job" training at the Salt River Project's Coronada Power Station in St. Johns Arizona.

Implementing Office: Office of Power and Telecommunications (DR/PT), extension 3370.

ENERGY POLICY PLANNING (263-0123.01)

Purpose: To strengthen the Government of Egypt's (GOE) capability to undertake national energy planning and policy making.

Description: The project transferred to the GOE modern energy planning technologies such as industrial energy audits, data management, integrated energy supply/demand assessments, national energy balances, energy conservation strategies and economic implications of energy pricing scenarios.

The Egyptian implementing agency was the Organization for Energy Planning (OEP), which is associated with the Ministry of Petroleum.

<u>Current Status:</u>	Completed
Duration:	FY 82 - FY 91
Approved Total Funding:	\$8.5 Million
Funding to Date:	\$8.1 Million

Accomplishments:

- OEP and Meta Systems, the technical assistance contractor, have trained over 320 Egyptian energy experts in one in-depth week-long seminar covering such fields as policy analysis, electricity pricing, cogeneration, boilers, and energy efficiency in transportation, agriculture, buildings and appliances. Furthermore, over 3,100 factory energy managers have attended OEP's week-long energy conservation course.
- *Foster Wheeler, A. D. Little* and *RCG/Hagler Bailly* worked with OEP to complete 19 comprehensive industrial energy audits, which recommended investments that would reduce annual energy costs by \$44 million with an average payback period of 1.6 years. OEP cogeneration studies of 13 factories identified waste energy that could be harnessed to generate 431 megawatts at half the cost of conventional thermal power plants.
- OEP assesses energy policy scenarios on three sophisticated planning models that Meta Systems and OEP have adapted for use in Egypt: the MIT macroeconomic input/output model with four energy sectors, the Argonne National Lab energy balance model, and an econometric energy pricing model.
- A 1989 external evaluation concluded that the project had "substantially achieved" its primary objective of institutional development and "OEP has developed staff capabilities that may well be unmatched in a single energy planning institution in any other AID-assisted country in the world."

Implementing Office: Office of Power and Telecommunications (DR/PT), extension 3370.

TALKHA COMBINED CYCLE PLANT (263-0196)

Purpose: To increase the efficiency of the Egyptian Electricity Authority's (EEA) gas turbine generating facilities at Talkha by recycling wasted thermal energy and upgrading the eight gas turbines.

Description: The project consists of engineering and construction of a 110 megawatt (MW) thermal cycle addition to the 192 MW gas turbine plant at Talkha and upgrading eight gas turbines. The Talkha gas turbine plant had been constructed earlier with USAID financing under the Gas Turbine Generators Project (263-0008). The thermal cycle addition will include individual heat recovery steam generators (boilers) for each gas turbine; two steam turbine generators, each capable of producing 55 MW under normal operating conditions; and auxiliary equipment and controls. The primary Egyptian implementing agent is the *Egyptian Electricity Authority (EEA)*.

<u>Current Status:</u>	Completed
Duration:	FY 86 - FY 90
Total Project Funding:	\$65 Million
Funding to Date:	\$65 Million

Accomplishments:

- Contracts were executed to *Gilbert Associates (G/C)* for consultant services and *General Electric (GE)* for design, supply, construction, testing and start-up of the plant.
- Civil construction on the Talkha site is complete. Upgrading the eight gas turbines is finished and the eight heat recovery steam generators have been assembled. The two 55 MW steam turbine generators have completed testing and have been turned over to EEA for commercial operation.

Implementing Office: Office of Power and Telecommunications (DR/PT), extension 3370.

ELECTRIC POWER DISTRIBUTION (263-0001)

Purpose: To provide electric distribution equipment to reconstruct the war-damaged power system in the Suez Canal cities of Suez, Ismailia and Port Said.

Description: This completed project financed procurement of equipment needed for reconstruction of the three power systems. Equipment included replacement and repair of underground cable, switchgear, transformers, distribution points, main distribution boxes, capacitor banks, tools and fittings.

The Egyptian Electricity Authority was primarily responsible for project implementation. The U.S. consultant engineer was *Sanderson and Porter* and the U.S. equipment suppliers were *Phelps Dodge Wire & Cable Corp.*, *Westinghouse Electric Corp.*, *Okonite Co.*, *Abbot Power Corp.*, *McGraw-Edison Co.*, *Copperweld Industries*, *Kearney National Inc.*, *Vermer Manufacturing Co.*, *Pengo Equipment Co.*, *General Cable Export* and *Burndy Co.*

<u>Current Status:</u>	Completed
<u>Duration:</u>	FY 75 - FY 80
<u>Total Project Funding:</u>	\$29.8 Million

Accomplishments:

- All equipment was purchased and installed.

Implementing Office: Office of Power and Telecommunications (DR/PT), extension 3370.

**GAS TURBINE GENERATORS (TALKHA AND HELWAN)
(263-0008)**

Purpose: To alleviate the urgent demand for electricity in the cities of Helwan and Talkha.

Description: This completed project financed installation of a 120 megawatt (MW) gas turbine electric generating plant near the city of Helwan, just south of Cairo, and a similar plant of 180 MW near the city of Talkha, in Qalubeya Governorate.

The primary Egyptian implementing agent was the Egyptian Electricity Authority. The U.S. consultant was *Gilbert Associates, Inc.* and the turnkey contractor was *General Electric Company*.

<u>Current Status:</u>	Completed
Duration:	FY 76 - FY 81
Total Project Funding:	\$67.3 Million

Accomplishments:

- Both power plants are operational and supplying a significant portion of the electricity used in the cities of Helwan and Talkha.
- The Talkha Combined Cycle Plant project (263-0196) has added two 55 MW thermal cycle generators to utilize wasted thermal energy from the Talkha plant.

Implementing Office: Office of Power and Telecommunications (DR/PT), extension 3370.

ISMAILIA THERMAL POWER PLANT (263-0009)

Purpose: To construct a 600 megawatt (MW) thermal power plant south of Ismailia along the Suez Canal.

Description: This project financed consulting services and construction of facilities to generate 450 MW of thermal power. Facilities for the generation of an additional 150 MW were financed by the *U.S. Export-Import Bank*. Electricity generated from this plant supplies Egypt's unified power system. The steam turbine generator units were designed to use fuel oil and/or natural gas. Supplier credits were provided by the *General Electric Co.* Consultant services included engineering, engineering administration and construction monitoring, and supervision of start-up and initial operation. *Gilbert/Commonwealth Inc.* was the consultant for this project.

The primary Egyptian implementing agent was the Egyptian Electricity Authority (EEA).

<u>Current Status:</u>	Completed
<u>Duration:</u>	FY 76 - FY 88
<u>Total Project Funding:</u>	\$259.6 Million

Accomplishments:

- The four thermal power units have been completed and accepted by EEA and are now supplying power to the national grid.

Implementing Office: Office of Power and Telecommunications (DR/PT), extension 3370.

NATIONAL ENERGY CONTROL CENTER (263-0023)

Purpose: To improve the reliability and efficiency of the Egyptian Unified Power System (UPS) by establishing centralized control and monitoring.

Description: The project provided loans and grants to establish the National Energy Control Center (NECC) at the Egyptian Electricity Authority (EEA) dispatch office to replace the manual control system, which was no longer adequate for operating the UPS. The NECC is a sophisticated computer system including 38 remote terminal units located at selected power stations and substations throughout Egypt. A communications subsystem connects the NECC to the remote terminal unit sites.

With the aid of the computer system, all of EEA's steam, gas and hydro generating stations are centrally monitored for output and available reserve capacity. As load demand changes, the central control instantly increases and decreases production throughout the system to most efficiently meet demand. This can either be done manually, based on the computer generated recommendations, or directly by computer telelink. The result is a much more efficient use of generating capacity, as opposed to the former approach of keeping much of the reserve capacity operational, but unused, in anticipation of load peaks. The system greatly reduces failures and outages.

Control Data was the implementation contractor. *General Electric* had a significant subcontract for the communications subsystem. *Gilbert/Commonwealth* were consultants to EEA. The primary Egyptian implementing agent was the Egyptian Electricity Authority (EEA).

<u>Current Status:</u>	Completed
Duration:	FY 78 - FY 87
Approved Total Funding:	\$42.5 Million

Accomplishments:

- The system is fully operational as designed, including 43 remote terminal units.
- Thirty-five EEA employees were trained in the U.S. Thirty-one of the 35 employees trained had remained with the NECC at project completion.

Implementing Office: Office of Power and Telecommunications (DR/PT), extension 3370.

URBAN ELECTRIC DISTRIBUTION (263-0033)

Purpose: To rehabilitate and expand the capacity of electric distribution systems in the cities of Cairo, Alexandria, Shibin El Kom and Beni Suef.

Description: The project provides financing for engineering services and procurement of equipment needed to rehabilitate the existing electric distribution systems in the four cities of Cairo, Alexandria, Shibin El Kom and Beni Suef. Financing is also provided to expand the systems as necessary to meet current and projected increased demand. The consultant is *Harza Engineering Company*. There are 48 U.S. firms providing equipment and materials under the project including:

General Electric, Phelps Dodge, Pirelli Cable Co., EIL Instruments, New World Research, Grove International, Clark Equipment, Ebasco, Multi Amp, Southwire, Cedec Inc., American Export Group, Vermeer Corp., Ohm Corp., Ingersoll Rand, Raychem Corp. and American Curtis.

The primary Egyptian implementing agents are the Egyptian Electricity Authority (EEA) and the Alexandria Distribution Company (ADC) of the Ministry of Electricity and Energy (MCEE).

<u>Current Status:</u>	Completed
Duration:	FY 77 - FY 91
Approved Total Funding:	\$97.2 Million
Funding to Date:	\$97.2 Million

Accomplishments:

- Construction is complete in Cairo, Shibin El Kom and Beni Suef. Two major substations, one at Shibin El Kom and the other at Rod El Farag in Cairo, are complete and in operation. Harza stopped monitoring activities in Cairo, Beni Suef and Shibin El Kom in October 1985 with completion of the rehabilitation of these systems.

- The \$41 million rehabilitation of the Alexandria distribution system included 19 contracts. *Siemens Energy and Automation, Inc.* constructed three substations, which were completed in September 1990. *Cablec Corporation* supplied 66 kilovolt (KV) cables to connect the substations to the EEA transmission network.

Implementing Office: Office of Power and Telecommunications (DR/PT), extension 3370.

ENERGY POLICY AND RENEWABLE ENERGY FIELD TESTING (263-0123)

Purpose: To assist the Government of Egypt (GOE) in achieving efficient use of Egypt's extensive and increasingly complex range of energy resource options.

Description: Under this umbrella program, two subprojects have the common goal of strengthening Egypt's overall national energy planning and management capability. This improved capacity enabled the GOE to analyze various energy supply options, better identify and pinpoint energy demand, and effectively design and implement appropriate energy programs.

The primary Egyptian implementing agents are the Organization for Energy Planning (OEP), the Ministry of Petroleum and Mineral Wealth (MOPMW) and the New and Renewable Energy Authority (NREA) of the Ministry of Electricity and Energy (MOEE).

<u>Current Status:</u>	Completed
Duration:	FY 82 - FY 92
Approved Total Funding:	\$32.6 Million
Funding to Date:	\$21.05 Million

Accomplishments:

- Two subprojects have been implemented. They are:

- 0123.01 Energy Policy Planning.
- 0123.02 Renewable Energy Field Testing.

Implementing Office: Office of Environment, (PDS/ENV), extension 3318.

LOCAL DEVELOPMENT/DECENTRALIZATION SECTOR PROFILE

Egypt has 26 Governorates, 199 cities, 218 urban and rural districts, and 928 administrative villages. These villages incorporate another 3,568 satellite villages. The central government is unable to plan, finance, execute and maintain all the basic services needed by these communities. The answer is local solutions to local problems by providing direct support to local governments thereby improving their capabilities to provide the financial, technical and human resources required to meet local needs.

The Mission's objective for local government decentralization is to improve and expand the capacity of local governments to plan, finance, implement, and maintain locally chosen basic services projects. To achieve this, USAID is assisting the government of Egypt GOE to: (1) increase the capacity of elected and executive local officials to plan, finance, and manage local development projects; (2) establish a nationwide, locally managed system of GOE matching grants with local councils to improve basic services in low income communities; (3) establish in each urban and rural governorate and local units comprehensive operation and maintenance programs for infrastructure, services and equipment; (4) establish a nationwide matching grant system for indigenous private and voluntary organizations (PVOs) in low income communities, and (5) improve the capacity of local governments to mobilize resources to support the sustained provision of these services.

From 1978 to the present, USAID has obligated 858 million dollars to support the GOE's shift towards locally initiated and managed development projects in both urban and provincial governorates. Over 30 percent of the projects are potable water projects, 20 percent are village and urban feeder roads, and the remainder includes sanitary drainage, canal lining and maintenance, construction and rehabilitation of schools and health clinics, vocational training centers and services for youth and the elderly. The current phase of the program finances similar projects, but increased emphasis is now being placed on the operation and maintenance of facilities. Maintenance plans, covering all LD II funded projects, are part of each governorate's annual investment plans. A major focus is each governorate's increased contribution to cover both capital and recurrent costs. USAID is assisting the GOE to design their own local development program.

So far, local councils have designed and implemented over 26,000 project grants for small infrastructure and service-oriented projects with USAID assistance. In addition, more than 2,100 items of heavy equipment, such as utility service trucks, graders, and solid waste collection vehicles have been funded to implement the projects. More than 100,000 elected officials and local government staff have been trained in decentralized project planning, management and technical skills in operation and maintenance. Linkages between local governments and the emerging private sector have been stimulated through contracts awarded by local authorities for project implementation. In addition local councils have mobilized community resources to upgrade infrastructure made possible by the USAID grants.

LOCAL DEVELOPMENT II (LD II) (263-0182)

Purpose: To improve the quality of life of low-income residents in rural and urban Egypt by providing improved and expanded basic services, facilitating local democratic participation and supporting local economic and social development.

Description: LD II is designed to strengthen the capacity and accountability of local governments and community organizations to plan, finance, implement, operate and maintain essential basic services. Priority local projects are selected by popularly elected and executive councils. Principle LD II components include provincial and urban local government investment project grants, indigenous PVO project grants, improved operational and maintenance (O&M), local institutional development activities such as training, piloting new technologies, and improved organizational and cost recovery systems.

Technical assistance contractors include *Chemonics*, *Wilbur Smith Associates*, *EduSystems* and the Egyptian firm, *Social Planning and Analysis Consultants*. Primary Egyptian counterparts are the 26 participating governorates, and the Ministries of Local Administration, Finance, Planning and Social Affairs.

Current Status:	Active
Duration:	FY 85-93
Approved Total Funding:	\$481 million
USAID Funding to Date:	\$411 million
GOE Funding to Date:	\$132 million (in local currency)

Accomplishments:

- Egypt's 26 governorates have planned and received over 16,000 local project grants to carry out single or multi-year community projects such as new or upgraded water/wastewater systems, service roads, schools, clinics and youth facilities, service equipment procurement, technical studies, and training.
- Over 100,000 local officials have been trained. LD II is also piloting new technologies, and management and financial systems including (1) appropriate, low cost wastewater technologies; (2) equipment maintenance centers using private sector joint stock companies; (3) a decentralized, urban budgeting system, and (4) urban land development with emphasis on cost recovery and private sector involvement.
- LD II completed a highly successful pilot rural small credit activity which was incorporated into a new USAID project.
- Over 5,000 small grants have also been provided to Private Voluntary Organizations (PVOs) to fund small projects for needed services to low income areas. PVOs are providing 25% of the project costs from user fees and contributions.
- Overall, an estimated 30 million citizens, or over half of Egypt's population have participated in the development of improved and expanded basic services and are benefiting from local economic and social development under LD II.

Implementing Office: Office of Local Administration and Development (DR/LAD), ext. 3324.

**DECENTRALIZATION SUPPORT FUND
(263-0161.04)**

Purpose: To support and accelerate the process of administrative decentralization in Egypt's rural governorates by increasing investment budgets under their jurisdiction.

Description: The DSF project was one of the activities of the broader USAID-assisted Decentralization Sector Support Program. It established a support fund to enable governorates to obtain capital equipment for local development programs. Each of the 21 rural governorates received a U.S. dollar budget allocation to purchase American equipment to support local public utility infrastructure.

The Egyptian implementing agency was the Ministry of Local Administration (MLA).

<u>Current Status:</u>	Completed
Duration:	FY 82 - FY 91
Approved Total Funding:	\$100 million
Funds Expended:	\$99.7 million

Accomplishments:

- The 21 provincial governorates were responsible for analyzing their respective capital equipment needs, determining priorities, and developing service vehicle and equipment specifications. The primary output included the provision of capital equipment for service delivery and infrastructure maintenance for the rural population. An additional output increased institutional capacity by governorate staff through their involvement in the planning, procurement, operation and maintenance of capital equipment.
- Over \$98 million in equipment and spare parts was procured through host country contracts for 21 rural governorates to support sanitation, road maintenance, fire protection, and potable water systems. The balance was expended for training and support services. Solid links were established between governorates and U.S. suppliers for basic training, equipment maintenance and spare parts. Final procurement in 1991 consisted of 32 pumps which were installed as part of the rehabilitation of the 143 kilometers Qena/Safaga/Hurghada water transmission pipeline.

Implementing Office: Office of Local Administration and Development (DR/LAD), ext. 3324/3325.

SECTOR DEVELOPMENT AND SUPPORT (263-0161.06)

Purpose: To augment and enhance Egypt's local development program and promote and strengthen decentralization.

Description: The Sector Development and Support activity provided assistance to further define the Government of Egypt's policy objectives of fiscal and administrative decentralization and develop governmental strategies for local development in Egypt. Activities financed under the project included: training, local government institutional development, and evaluation.

The Egyptian implementing agency was the Ministry of Local Administration (MLA).

<u>Current Status:</u>	Completed
Duration:	FY 82 - FY 91
Approved Total Funding:	\$7.34 million
Funding to Date:	\$7.16 million

Accomplishments:

- A key water assessment study led to recommendations for improving the use and distribution of water resources in Egyptian villages.
- Under the Training Block Grant component, USAID disbursed the LE equivalent of \$1.0 million to 16 governorates for locally managed technical and management training of 32,300 participants.
- USAID funded \$1.6 million for specialized technical training of local government staff by the U.S. contractors. Governorate staff were involved in planning and implementing 3,500 local basic services projects each year.
- The Rural Small Scale Enterprise (RSSE) pilot credit activity disbursed 9,519 loans to small scale entrepreneurs for a total amount of \$2.5 million. The successful RSSE activity was incorporated into USAID's follow-on Small Enterprise Credit Project.
- A basic study was undertaken to assess the impact of USAID's local development program on enhancing the capacity of Village Local Councils to plan and manage local development projects.

Implementing Office: Office of Local Administration and Development (DR/LAD), extension 3324.

DEVELOPMENT DECENTRALIZATION I (263-0021 and 263-0161.0I)

Purpose: To increase the development capabilities and revenues of village councils throughout Egypt and to encourage cooperation between elected and executive councils during project selection, design and implementation.

Description: The project financed a Local Development Fund (LDF) within the Organization for Reconstruction and Development of the Egyptian Village (ORDEV). Related training and technical assistance funded under this project improved ORDEV's ability to manage the fund. The LDF provides small loans to village councils and to villagers (through the councils) for income-producing projects. The primary Egyptian implementing agent was ORDEV, a department of the Ministry of Local Administration (MLA).

<u>Current Status:</u>	Completed
Duration:	FY 78 - FY 87
Total Project Funding:	\$26.2 Million

Accomplishments:

- LDF made 952 loans totaling LE 23 million from its inception to the close of the project. Local unit enterprises were funded by 727 of the loans, and 225 loans were made to private individuals with the council acting as guarantor. Local units contributed LE 7.5 million to the enterprises and private contributions totaled LE 9.1 million. Eighty-eight percent of repayments due had been received as of project completion.
- Over 20,000 elected and executive council members participated in project selection, design and management.
- More than 10,000 elected and executive councilors and their staff received project design, management and technical training.
- Subprojects studied by an evaluation team in December 1983 returned an average of 19 percent per annum on investment. Many subprojects acted as demonstration projects and are being replicated by local private entrepreneurs.
- ORDEV continues to emphasize loans to private businesses.
- The project caused major policy changes in the Egyptian implementing organization. For example, all future funds for rural economic projects financed by ORDEV will be provided as loans, not as grants as in the past.
- The project has contributed to the evolution of democracy and pluralism in Egypt by supporting participatory, democratically elected institutions.

Implementing Office: Office of Local Administration and Development (DR/LAD), ext. 3324.

SINAI PLANNING STUDIES (263-0113)

Purpose: To assist the government in identifying, investigating, and evaluating priority reconstruction and development programs in the Sinai.

Description: This project funded technical assistance, planning and feasibility studies. The project also provided for equipment and supplies directly related to the identification, investigation and evaluation of priority reconstruction and development programs in the Sinai. The project was administered by the Ministry of Development, which supervised the research efforts of the U.S. consultant *Dames and Moore*.

<u>Current Status:</u>	Completed
<u>Duration:</u>	FY 79 - FY 85
<u>Total Project Funding:</u>	\$2.7 Million

Accomplishments:

- The Dames and Moore consultant report was printed in late March 1985.

Implementing Office: Office of Urban Administration and Development (DR/UAD), ext. 3318

BASIC VILLAGE SERVICES (BVS) (263-0103 and 263-0161.02)

Purpose: To decentralize decision-making on public investment projects and to strengthen the network of administrative processes and local management skills at village, district and governorate levels in all participating governorates. 22 of the 26 governorates of Egypt active were participants in the project. Particular emphasis was placed on elected village councils, as opposed to appointed, executive officials, in project selection and implementation.

Description: The project provided a coordinated mix of technical assistance, training and block grants to 870 district councils representing about 3,700 villages in 22 governorates. The councils selected, designed and implemented small infrastructure projects such as potable water systems, feeder roads, small bridges, swamp filling and lining of canals.

The U.S. consultant was *Chemonics International*. The Egyptian implementing agents were the Organization for Reconstruction and Development of the Egyptian Village (ORDEV) of the Ministry of Local Administration, and 22 governorates.

<u>Current Status:</u>	Completed
Duration:	FY 80 - FY 88
Total Project Funding:	\$224.7 Million (Plus \$ 75 Million additional funding from P.L. 480 Title III)

Accomplishments:

- Over 5,000 subprojects have been completed in about 3,400 villages and satellite villages. These include providing about 19,200 kilometers (km) of water pipes, 1,075 pumps and 215 water wells, building 2,900 km of roads and providing ferry boats, small bridges, drainage systems and sewerage systems.
- Over 29,000 village council members and governorate staff have received training in subjects such as financial planning and basic maintenance.
- Over 840 person-months of direct, on-site technical assistance were delivered to villages, districts and governorates, along with 20,000 copies of 20 Arabic language manuals in support of this technical assistance.
- By emphasizing the role of popularly elected councils, the project contributed to the evolution of democracy and pluralism in Egypt.
- A March 1984 evaluation concluded that the Basic Village Services project is a major rural development success story.

Implementing Office: Office of Local Administration and Development (DR/LAD), extension 3324.

NEIGHBORHOOD URBAN SERVICES (263-0153 and 263-0161.05)

Purpose: To decentralize decision-making on public investment projects and strengthen administrative processes and local management skills in low-income neighborhoods of Cairo and Alexandria and in the urban districts of Giza and Qalubeya.

Description: Public works programs and activities for Private Voluntary Organizations (PVOs) were jointly identified, developed and executed by local officials and the elected popular councils in each district.

The Egyptian implementing agencies were the Cairo, Alexandria, Giza and Qalubeya Governorates.

<u>Current Status:</u>	Completed
Duration:	FY 81 - FY 88
Total Project Funding:	\$89 Million

Accomplishments:

- Each of the twenty-four urban districts has identified, planned and implemented an average of 50 projects annually over the six years of the project. Over 10,000 local council members and their staffs and several hundred PVO staff were trained in project planning and implementation.
- Infrastructure subprojects included the following construction activities: 1.2 million square meters of street paving; 294,000 linear meters of street lighting; 42,000 meters of sewer lines; 29,000 meters of water lines; 72 community water taps; 10,300 vertical sewer pipes replaced for low-income flats; 27 solid waste projects, providing several hundred cleaning carts; and 30 public toilets installed.
- Health subprojects included: the construction of 52 new hospitals, clinics and waiting sheds; expansion and renovation of 45 existing hospitals and clinics; and the renovation and equipping of 251 PVO clinics and dispensaries.
- 974 new classrooms were constructed.
- 107 new youth centers were renovated; 258 private and 23 government vocational training centers were equipped; 488 other facilities, including libraries, elderly and handicapped hospitals and cultural centers were equipped; and 332 nurseries and day care centers were equipped.
- Fifteen markets were constructed or renovated, and 17 food caravans were placed in low-income neighborhoods.

Implementing Office: Office of Local Administration and Development (DR/LAD), extension 3324.

OTHER INFRASTRUCTURE PROJECTS

TELECOMMUNICATIONS I, II, III AND IV (263-0054, 263-0075, 263-0117, 263-0177)

Purpose: To improve the telecommunications system of Egypt by strengthening the planning, management, operating and training functions of the Arab Republic of Egypt National Telecommunications Organization (ARENTO), and to rehabilitate and replace components of the system in the large population centers of Cairo and Alexandria.

Description: The first three telecommunications projects are being treated as one integrated project. A U.S. contracting firm, *Arthur D. Little International*, was assisting ARENTO with managerial and technical support services for all installation and construction activities and for improvement of ARENTO's operations. Additionally, ARENTO was receiving assistance from other U.S. firms, *American Telephone and Telegraph International, Inc. (AT&T)* and *Ford Aerospace Communications International, Inc.*, to install electronic telephone exchanges in Cairo and Alexandria and to install the outside plant facilities and an expanded fiber optic junction network. The fourth project finances two digital switches inside and outside plant networks in different exchanges in Cairo and Alexandria.

	Project <u>263-0054</u>	Project <u>263-0075</u>	Project <u>263-0117</u>	Project <u>263-0177</u>
Current Status:	Completed	Completed	Completed	Active
Duration:	FY78-FY83	FY79-FY86	FY80-FY90	FY88-93
Approved Total Funding:	\$40 Million	\$80 Million	\$122 Million	\$82Million
Funding to Date:	\$40 Million	\$80 Million	\$122 Million	\$82Million

Accomplishments:

- Telecommunications III (263-0117) is now complete. All of the 10 project-financed telephone exchanges, financed under Phases I, II and III, are operational and are currently providing improved telephone service to about 170,000 subscribers in Cairo and Alexandria. ARENTO has increased telephone subscription by 66 percent and the installation rate by 50 percent.
- ARENTO's operations were upgraded by establishing improved systems in finance, accounting, payroll, personnel, fundamental planning, project planning and management.
- Ten Cairo and Alexandria exchanges and the Center of Operations and Maintenance (COM) established at Ramses vastly improved telephone service in these areas. Data from the COM allowed ARENTO to monitor and pinpoint trouble areas in the entire Cairo telephone network.
- Telecommunications Phase IV is in progress and *Fluor Daniel* and *K&M* have been appointed as consultants to ARENTO. *American Telephone and Telegraph (AT&T)* has been awarded the contract for the turnkey design, supply and installation for the Pyramid West, El Kalaaa, Maadi, Mokattam and Heliopolis exchanges which work on the installation of digital switches. Training of ARENTO engineers is underway.

Implementing Office: Office of Power and Telecommunications (DR/PT), ext 3370

SAFAGA GRAIN SILOS COMPLEX (263-0165)

Purpose: To improve grain distribution by reducing losses in the offloading, storage and transshipment of grain destined for Upper Egypt.

Description: A 100,000 metric ton grain silo complex was constructed at Port Safaga. Grant funds paid for consulting engineering services and construction and procurement services to erect the complex.

The U.S. consultant was *Black and Veatch International* and the U.S. construction contractor was *Harbert-Howard Co. (HHC)*. The Government of Egypt (GOE) financed all local currency costs and contributed land, channel and harbor improvements, quay extension, utilities and a 160-kilometer (km) rail link between Safaga and Qena. The Egyptian implementing agent was the Ministry of Supply (MOS).

<u>Current Status:</u>	Completed
<u>Duration:</u>	FY 82 - FY 90
<u>Approved Total Funding:</u>	\$80.0 Million
<u>Funding to Date:</u>	\$71.3 Million

Accomplishments:

- Construction of the silos was completed and approved by MOS.
- MOS contracted with HHC to provide operation and maintenance training for two years starting November 1, 1987.
- The 160 KM of railway linking Qena and Safaga are complete.
- *Encorp* finished constructing a diesel power station at Safaga and testing is now under way.

Implementing Office: Office of Urban Administration and Development (DR/UAD),
extension 3323.

**SUEZ CANAL CLEARANCE EXTENSION
(263-0004)**

Purpose: To clear the Suez Canal and its approaches so that maritime traffic may continue to use the Canal as a principal international waterway.

Description: This completed project provided ancillary project support for the *United States Navy* to clear the Suez Canal and its approaches. The primary Egyptian implementing agent was the Suez Canal Authority.

<u>Current Status:</u>	Completed
<u>Duration:</u>	FY 75 - FY 79
<u>Total Project Funding:</u>	\$35 Thousand

Accomplishments:

- Clearing of the Suez Canal was completed.
- The Canal is used as a principal international waterway.

Implementing Office: Office of Urban Administration and Development (DR/UAD), extension 3323.

ROAD BUILDING EQUIPMENT (263-0007)

Purpose: To finance purchase of heavy road construction equipment required for the reconstruction of the Suez Canal area.

Description: This project procured heavy road construction equipment to reconstruct the Suez Canal area. The equipment included bulldozers, tractors, asphalt mixing plants and portable rock crushing plants.

<u>Current Status:</u>	Completed
Duration:	FY 75 - FY 79
Total Project Funding:	\$13.9 Million

Accomplishments:

- All equipment was procured on schedule and used in reconstructing the Suez Canal area as planned. The equipment was then used by the Egyptian Government on construction sites throughout the country.

Implementing Office: Office of Urban Administration and Development (DR/UAD),
extension 3323.

**ALEXANDRIA PORT AUTHORITY
(263-0014)**

Purpose: To finance acquisition of equipment and related services to assist the rehabilitation and expansion of port facilities in the city of Alexandria.

Description: This completed project was jointly financed by the World Bank, USAID, and the Government of Japan. The USAID contribution to this phase of the rehabilitation and expansion of port facilities in Alexandria financed cargo handling, land transport equipment and related services, including storerooms for spare parts. The Government of Japan and the World Bank financed new berth construction, dredging, paving, floating equipment and related services.

The primary Egyptian implementing agent was the Alexandria Port Authority. The U.S. consulting engineer was *PRC Harris, Inc.*

Current Status:	Completed
Duration:	FY 76 - FY 81
Total Project Funding:	\$30.2 Million

Accomplishments:

- All USAID financed project activities, including equipment delivery, were completed by 1981.
- Three spare parts storerooms were constructed and stocked. Card index inventory systems were established.

Implementing Office: Office of Urban Administration and Development (DR/UAD), extension 3323.

GRAIN SILOS STORAGE (263-0028)

Purpose: To reduce large product and monetary losses associated with importing and distributing food grains and to provide needed additional closed storage capacity.

Description: This completed project financed the construction of two 100,000 metric ton grain silo complexes, one at the Port of Alexandria and the second in the Shoubra district of Cairo, and two pneumatic ship unloaders for the Port of Alexandria.

The primary Egyptian implementing agent was the General Authority for Supply Commodities (GASC). GASC's consultant was *de Laurel Engineers*, and *Ibberson International* supervised the mechanical/electrical installation. Thirty-nine U.S. firms supplied commodities. Firms having contracts valued at greater than \$1 million were:

Abbot Power Corp.: electrical substations.
Fuller Company: pneumatic ship unloaders.
Mid-West Conveyor Co.: belt elevators and bucket conveyors.
Stephens-Adamson: bulk grain conveyors.
CEA-Carter: dust collection systems.
Fenwall Corp.: explosion suppression systems.
U.S. Steel: rebar and fabricated structural steel.
Transoceanic Shipping: freight forwarding services.

Current Status:	Completed
Duration:	FY 75 - FY 86
Total Project Funding:	\$53.6 Million

Accomplishments:

Construction of the silos and installation of the ship unloaders were accomplished and the systems operational by 1986.

Implementing Office: Office of Urban Administration and Development (DR/UAD), ext. 3323.

GRAIN, TALLOW, OIL AND FATS STORAGE AND DISTRIBUTION (263-0037)

Purpose: To construct a tallow and fats storage facility in the city of Alexandria and a transportable grain handling facility in the port of Alexandria.

Description: This completed project supported the Government of Egypt's effort to create an effective and efficient food grain storage and distribution system to meet the pressing needs of an increased urban population. A 60,000 metric ton tallow and fats storage facility in Alexandria and an 8,000 metric tons per day transportable grain handling facility in the port of Alexandria were constructed.

The primary Egyptian implementing agent was the General Authority for Supply Commodities (GASC). *Black and Veatch International* was GASC's consultant; *Harbert-Howard Company* was the construction contractor.

Current Status:	Completed
Duration:	FY 77 - FY 85
Total Project Funding:	\$35.6 Million

Accomplishments:

- The grain handling facilities constructed in Alexandria have been fully operational since January 1982.
- The tallow, oil and fats facility has been fully operational since September 1983.

Implementing Office: Office of Urban Administration and Development (DR/UAD), ext. 3323.

PORT OF SUEZ PROJECT (263-0047)

Purpose: To rehabilitate and modernize Port Ibrahim, increasing the cargo capacity of the port from 644,000 metric tons to 1,615,000 metric tons a year, and to develop a new port at Addabyah.

Description: This completed project was originally designed to increase the cargo capacity of the Suez port facility by constructing four new multi-purpose deepwater berths, rehabilitating existing facilities and creating a new autonomous port authority. However, the project was later revised to concentrate USAID efforts on rehabilitating existing port facilities and creating a new autonomous port authority. The Red Sea Ports Authority, using its own resources, proceeded with construction of two deepwater berths.

The Red Sea Ports Authority was the primary Egyptian implementing agent. The U.S. contractors on this project were *Wilde Manufacturing Co.*, *Lorain Koehring*, *International Harvester*, *Cedec Inc.*, *Morgan Equipment Co.*, *Elgin Sweeper Co.*, *Mauring Corporation*, *Ferrostaal Inc.*, *Clement Malki Associates and Intrade Inc.* The Port of Suez Engineering Group, a consulting joint venture of *Parsons Brinckerhoff International*, *Kaiser Engineers* and *Sabbour Associates*, were consultants of the implementing agent.

<u>Current Status:</u>	Completed
Duration:	FY 78 - FY 86
Total Project Funding:	\$10.1 Million

Accomplishments:

- Rehabilitation of Port Ibrahim, including two new deepwater berths, was completed.
- The USAID financed cargo handling equipment, workshop tools and some navigational and other equipment are in use.

Implementing Office: Office of Urban Administration and Development (DR/UAD), extension 3318.

LOW INCOME HOUSING AND COMMUNITY UPGRADING (263-0066)

Purpose: To demonstrate that socially acceptable basic housing, public utilities and community facilities can be provided for low-income families at an affordable price that also allows a substantial recovery of the investment.

Description: This project sought to demonstrate the validity of the Government of Egypt's (GOE) new policy of developing urban housing in the city of Helwan, 30 kilometers south of Cairo. The project had two major components:

1. Development of the Helwan New Community with 7,000 fully serviced plots accommodating as many as 20,000 dwelling units, community organizations and other public facilities for a population of 100,000.
2. Community upgrading programs in seven existing low-income Helwan neighborhoods with a combined population of nearly 100,000. This program included provision of credit for housing and small enterprise development; provision of water, sewers, roads and public/community facilities; and community organization and vocational training.

The primary Egyptian implementing agent was the *Executive Agency for Joint Projects (EAJP)*.

Current Status:	Completed
Duration:	FY 78 - FY 88
Total Project Funding:	\$76 Million

Accomplishments:

- In the Helwan New Community, construction of the planned model housing is complete. The neighborhood infrastructure, sewage treatment plant, water tank and electric substation are completed. The entire New Community was turned over to the GOE and by June 1989 EAJP had sold 1147 plots to Helwan factory workers. The GOE is constructing apartment buildings in half the neighborhoods, and individual workers will build their own homes on plots they purchase in the remaining neighborhoods. A local currency fund has been established to provide mortgage financing.
- In the seven upgrading communities, roads, sewers and other community infrastructure facilities were constructed.
- Nearly 3,000 families obtained home improvement loans in the seven upgrading communities. These loans ranged from LE 500 to LE 2,000 in value and totalled LE 5 million. The Small Enterprise Program has issued 325 loans since 1982 for a total value of LE 615,000. At project completion, 85 percent of the borrowers had repaid their loans.

Implementing Office: Office of Urban Administration and Development (DR/UAD), ext. 3323.

HYDROGRAPHIC SURVEY FOR THE SUEZ CANAL (263-0071)

Purpose: To conduct a hydrographic survey and develop up-to-date, accurate nautical charts of approaches to the Suez Canal.

Description: This completed project financed a hydrographic survey and produced up-to-date, accurate maps of waterways into and out of the Suez Canal. The survey facilitated widening and deepening of the canal and its approaches by identifying the navigational obstacles to be removed. The project also provided training in modern hydrographic survey methods for Egyptian specialists. The Ministry of Maritime Transport was the primary Egyptian implementing agent.

<u>Current Status:</u>	Completed
<u>Duration:</u>	FY 77 - FY 81
<u>Total Project Funding:</u>	\$7.1 Million

Accomplishments:

- All planned nautical charts and personnel training were completed.
- Maps developed under the project now assist international mariners and permit ships to navigate through the Canal with greater confidence, safety and efficiency.

Implementing Office: Office of Urban Administration and Development (DR/UAD), ext 3323.

B. DEVELOPING PRODUCTIVITY

Projects presented in this section support Egyptian efforts to promote gains in agricultural and industrial productivity. The programs (1) encourage improvement of Egyptian government policies for these sectors, (2) promote private sector responses to economic needs, and (3) assist the development and dissemination of productive technologies.

AGRICULTURE SECTOR PROFILE

Rising population and personal income levels in Egypt since the 1970s have led to steadily rising food imports. Because of rapid growth in other sectors (oil, tourism) and a limited irrigable land base, agriculture declined in its share of real GDP from 20.8% in 1986/87 to 17.3% in 1990/91, and food and agricultural imports in 1990/91 exceeded agricultural exports by about \$1.7 billion. While agricultural productivity (e.g. measured by crop yields per land area) is already very high in Egypt by world standards, opportunities exist for substantial improvements. Yields can be raised further, and the cropping pattern can be shifted toward higher value crop. The growth rates over the period 1980/81 - 1990/91 for total real GDP and real agricultural GDP were 1.1% and 0.8%, respectively.

AID's objectives in this sector have been to improve productivity by establishing first class research facilities, improving varieties for major cereal crops, expanding credit facilities, and improving overall water use efficiency of the irrigation system. In addition to expanding the farmers' incentives to adopt new technologies, USAID has broadened its program by initiating a performance based agricultural production credit program to include support for key policy reforms considered essential to revitalize Egypt's agriculture. USAID is also expanding the scope of its agricultural research and extension support.

USAID is continuing its agricultural policy dialogue with the GOE to encourage removal of production controls, reform farm output and input prices, and increase the role for the private sector in the production and distribution of agricultural inputs and outputs through the Agricultural and Production Credit Project. USAID supports generation and extension of new technologies, improved data collection and utilization to inform policy-making as well as linking research with extension. The Irrigation Management Systems Project is rehabilitating irrigation structures and addressing institutional and structural problems necessary to improve water distribution efficiency.

Agriculture research has led to improved varieties for major cereal crops -- Producing 35% more maize, 65% more wheat, 50% more sorghum and soybeans, and 58% more rice in both research plots and farmers' fields. So far, the national average yields have improved much less in some cases because market price distortions have discouraged farmers from adopting some of the improved varieties, such as high yield wheat. Agricultural policy reforms have become an increasingly important part of USAID's policy dialogue with the GOE. Major accomplishments by the GOE since 1986 include elimination of price controls, area controls, crop procurement quotas on 13 crops, elimination of wasteful animal feed subsidies, and reduction of fertilizer subsidies.

NATIONAL AGRICULTURAL RESEARCH (263-0152)

Purpose: To improve Egypt's capability to provide farmers with productivity-increasing technologies in a supportive policy environment.

Description: The project is designed to enhance the effectiveness, as well as broaden the involvement, of a wide range of public and private institutions in Egypt's agricultural development. The four priority areas focused on agricultural research, technology transfer, seed technology and project management with new initiatives. The strategy emphasizes linking research and extension by involving extension workers with researchers in field trials and extensive demonstrations of improved technological packages.

The primary technical assistance contractors are the *Consortium for International Development (CID)* for Research, Seed Technology, and Technology Transfer Components, *Chemonics* for Agricultural Policy Analysis, and the *Social Consultants, International for Management/New Initiatives*. The primary Egyptian implementing agencies are the Agricultural Research Center (ARC) and the Ministry of Agriculture and Land Reclamation (MALR).

<u>Current Status:</u>	Active
Duration:	FY 85 - FY 94
Approved Total Funding:	\$300 Million
Funding to Date	\$142 Million

Accomplishments:

- Fifteen collaborative research proposals are underway. Seven will include integrated pest management which has been given the highest priority due to significant yearly losses caused by pests on major crops. These include citrus, cotton, nematode, wheat/maize, tomato, natural pesticides, and biochemical toxicology.
- Over 2,000 on farm field trials are conducted each year in farmers' fields throughout 19 governorates for crops such as rice, tomatoes, cotton, sorghum, clover, wheat, corn, sugar, barley, and onions; and for farm mechanization and livestock management.
- Over 500,000 extensions and farmers have received short courses on a variety of subjects from improved crop production practices to "training of trainers" and extension methods for reaching rural women.
- More than 30 technological "packages" for improving crop and livestock production have been developed, tested, and disseminated to farmers. These include practices for integrated production and pest control, farm budgets, and harvesting methods, and are updated annually.
- An innovative decentralized extension system has been designed and is being executed through four regional research and extension centers serving seven governorates. It involves the use

of multi-disciplinary research/extension teams and task groups working with extensionists and farmers to develop and disseminate technologies responsive to farmer needs.

- In May 1991, at the first Egyptian seed conference held in Cairo, Minister Wally announced Government plans to turn all seed production and processing over to the private sector.
- U/AES National Probability Village sampling frame data entry completed and automated for 435 villages.
- Agreement was reached with the Ministry to proceed with construction and private sector management of two large cotton foundation seed facilities and USAID direct construction contracting is underway.

Implementing Office: Office of Agriculture (AGR/A), extension 2133.

AGRICULTURAL PRODUCTION AND CREDIT (263-0202)

Purpose: To assist the Government of Egypt (GOE) in deregulating the agricultural sector and to provide farmers with improved financial services and expanded access to inputs, such as new technologies, in a deregulated agricultural sector. Increased private sector participation in Egyptian agriculture is a primary goal of this project.

Description: The project has two elements:

- The capital component of \$250 million is being transferred by installments (tranches) to the GOE in support of agreed agricultural policy changes. The equivalent in Egyptian pounds will be made available to the Principal Bank for Development and Agricultural Credit (PBDAC) to expand its capital base so that it may provide the credit needs of small farmers and agriculturally related businesses.
- The capacity building component, \$33 million, provides technical assistance, training and equipment for the PBDAC. Concepts tested under the pilot *Small Farmer Production* project will be extended under this project to at least 450 village banks in 14 governorates. These concepts include full banking services, interest rates at near-market levels, rapid and efficient loan approval and increased extension services to the farmer. The Egyptian implementing agency is the Principal Bank for Development and Agricultural Credit (PBDAC) under the guidance of the Ministry of Agriculture and Land Reclamation (MALR).

<u>Current Status:</u>	Active
Duration:	FY 86 - FY 95
Approved Total Funding:	\$183 Million
Funding to Date	\$138 Million

Accomplishments:

- Major policy accomplishments during 1986-1991 include the cancellation of mandatory low-priced government procurement of eleven crops, elimination of subsidies for imported corn, private sector participation in trading inputs, and reduction/elimination of subsidies for fertilizer and other inputs. After mutual agreement that satisfactory progress had been made toward the agreed upon targets, USAID disbursed \$120 million in four tranches in July 1987, July 1988, November 1989, and August 1991.
- Nearly 480 village banks are participating in the distribution of unsubsidized loans to small farmers. 1.9 million farmers have received loans of up to LE 10,000 at market rates.
- Over 13,100 PBDAC and Extension Service personnel have received training under the project. Over 100 PBDAC staff have participated in short-term, off-shore technical training and observation tours.

Automation of PBDAC's banking operations is proceeding on schedule with pilot mini and microcomputers in places, development and application of prototype software (General Ledger, Credit Reporting, Savings and Payroll personnel) and installation plans for PBDAC and Markaz levels agreed to in principle.

Implementing Office: Office of Agriculture (AGR/A), ext. 3214

IRRIGATION MANAGEMENT SYSTEMS (263-0132)

Purpose: To help Egypt improve the operating efficiency of its irrigation system and to strengthen the Ministry of Public Works and Water Resources' (MPWWR) operation, maintenance and planning capabilities.

Description: The project supports: (1) country-wide structural replacement and preventive maintenance programs for the system; (2) a program to improve and transfer operation and maintenance of the system to water users associations; (3) the Water Research Center (WRC); (4) installing a system to monitor the Nile River and major canal flows; (5) development of a MPWWR-wide training program and a training facility; (6) developing computer models to aid in management of the overall system; (7) strengthening MPWWR's project preparation and analysis; and, (8) survey and mapping of the irrigated lands of Egypt.
The implementing Agency is the MPWWR.

<u>Current Status:</u>	Active
<u>Duration:</u>	FY 81 - FY 95
<u>Approved Total Funding:</u>	\$340.0 Million
<u>Funding to Date:</u>	\$250.0 Million

Accomplishments:

- Eight technical assistance contracts, a grant to the United Nations Food and Agricultural Organization, and three Participating Service Agency Agreements are in place to assist in project implementation, commodity procurement and training.
- Over 17,000 obsolete structures replaced, saving water and benefiting some two million farmers through reduced waterlogging, increased cropping intensity, expanded irrigated area and more equitable water distribution.
- Fifteen project feasibility studies completed. Five have been financed by international donors.
- Over 1300 water user associations organized and involved in the planning and design of improvements for about 70,000 acres. Implementation of improvements for 20,000 acres underway.
- A successful preventive maintenance program in Gharbia Governorate is now being replicated in five other governorates.
- Training provided to over 7,600 MPWWR staff through 363 off-shore events and numerous in-country courses. Training facility under construction.
- Aerial photos, ground surveys and facility improvement for production of topographical, orthophoto and cadastral maps well advanced. Map production begun.
- WRC research priorities established under 5-year strategic plan. Trained (12 PhDs and 25 MSCs completed) staff conducting high calibre research. Additional training and facility improvement and management on-going.
- Studies and analyses to support development of cost recovery policies and an environmental/water quality impact assessment are underway.

Implementing Office: Office of Irrigation and Land Development (AGR/ILD), extension 3206.

WATER USE AND MANAGEMENT (263-0017)

Purpose: To research, develop and demonstrate replicable water management practices that will increase the efficiency of the irrigation system and expand agricultural growth.

Description: The project financed small farm adaptive research activities in water and agricultural management at three field sites - Kafr El Sheikh, Mansoura and El Minya - which are located in the Delta and middle regions of Egypt.

The primary implementing agent was the Water Research Center in the Ministry of Public Works and Water Resources (MPWWR). Technical assistance was provided through a contract with the *Consortium for International Development* and included a broad range of activities related to water management, plant production and economic development.

<u>Current Status:</u>	Completed
Duration:	FY 76 - FY 85
Total Project Funding:	\$13 Million

Accomplishments:

- All project objectives were achieved including:
 - (1)Development of replicable agronomic practices.
 - (2)Development of on-farm water management practices.
 - (3)Reorganization of water delivery systems.
 - (4)Development of farmer organizations to assist with the control and scheduling of water deliveries.
 - (5)Economic evaluations.
 - (6)Training of MPWWR staff.

- A final project evaluation was completed in March 1985. It recommended:
 - (a) Implementation of the methodologies and technologies developed under the project.
 - (b) Establishment of the necessary official role, guidelines and incentives for the organization of water user associations.
 - (c) Extrapolation of the economic cost benefits of large scale implementation of the projects findings.

- Project findings were acted upon by the Regional Irrigation Improvement Project, and research activities were continued by the Water Research Center. Both activities receive support through the USAID sponsored Irrigation Management Systems Project 263-0132.

Implementing Office: Office of Irrigation and Land Development (AGR/ILD), ext 3206.

PVC PIPE DRAINAGE (263-0019)

Purpose: To establish facilities at Qena, Assiut and Beni Suef to produce poly vinyl chloride (PVC) drainage pipe to facilitate land reclamation in Upper Egypt.

Description: This project financed procurement of six PVC pipe manufacturing lines to produce PVC pipe for draining irrigated land. The pipe helps halt deterioration of land fertility caused by waterlogging and salinity and permits increased agricultural yields of 15 to 35 percent. Pipe installation is being financed by the World Bank as a part of a planned drainage program.

The Egyptian implementing agent was the Egyptian Public Authority for Drainage Projects, the U.S. consultant was *STV Engineers* and the U.S. suppliers were *Cincinnati Milacron* and *B.F. Goodrich*.

<u>Current Status:</u>	Completed
Duration:	FY 76 - FY 86
Total Project Funding:	\$19.1 Million

Accomplishments:

- The three pipe manufacturing plants, each including two PVC pipe manufacturing lines, were established in upper Egypt at Qena, Assiut and Beni-Suef.
- In areas where pipe produced under this project has been installed, improved drainage has increased crop production.

Implementing Office: Office of Urban Administration and Development (DR/UAD), extension 3318.

RICE RESEARCH AND TRAINING (263-0027)

Purpose: To improve the Egyptian capability for gathering, analyzing and disseminating information on rice production, seed processing and storage by establishing a national institute devoted to rice research and extension.

Description: This project provided grant financing to establish a National Rice Research and Training Center at the Sakha Research Station in Kafr El Sheikh. Construction of all physical facilities, equipment, supplies and training of staff for the center were financed from project resources. The focus of the new institute's efforts is identifying and eliminating constraints to rice production and increasing production by field testing high-yielding rice varieties and demonstrating project developed technologies. Small farm equipment such as portable pumps was introduced and tested by a mechanization unit established by the project.

The primary Egyptian implementing agent was the Ministry of Agriculture and Land Reclamation. Technical assistance for the project was provided by the *International Rice Research Institute* and the *University of California at Davis*.

<u>Current Status:</u>	Completed
Duration:	FY 77 - FY 87
Total Project Funding:	\$20.9 Million

Accomplishments:

- Project research continues under the USAID-sponsored National Agricultural Research Program (263-0152) begun in FY 1986.
- The breeding program has made remarkable progress towards developing high-yielding varieties of rice with short structure, early maturity, blast and stem-bore resistance, salinity resistance and appropriate grain quality. Eighty percent of the nearly 1 million feddans under rice cultivation in 1987 were planted with Giza 173, a variety developed under the project.
- Improved agronomic techniques were extended to, and utilized by farmers. Yields increased by 25 percent in the project demonstration area compared to a five percent increase in Egyptian rice production.
- A permanent 90 feddan (about 90 acres) experimental site was developed at Sakha.
- The mechanization unit tested various small farm equipment. Portable pumps and a one-meter reaper are being locally manufactured.
- Construction of the National Rice Research and Training Center facilities was completed in 1986.

Implementing Office: Office of Agriculture (AGR/A), extension 3214.

AGRICULTURAL MECHANIZATION (263-0031)

Purpose: To build the Egyptian capability to plan, implement and evaluate appropriate agricultural mechanization programs.

Description: This project supported Egyptian efforts to introduce selected agricultural mechanization activities and to create a sound planning, implementation and support base for future agricultural mechanization programs. Support was provided to public and private sector firms or organizations which had demonstrated the ability to carry out effective agricultural mechanization programs.

The Egyptian implementing agent was the Ministry of Agriculture and Land Reclamation (MALR). The primary contractor was *Louis Berger International* and the MALR's consultant was *Fintecs*.

<u>Current Status:</u>	Completed
Duration:	FY 79 - FY 87
Total Project Funding:	\$37.6 Million

Accomplishments:

- The project purchased \$7 million worth of mechanized equipment from U.S. sources for use in rural villages for soil improvement, field trials and demonstration training programs. A total of \$4 million in mechanized equipment was procured locally to be used in combination with the U.S. procured equipment.
- Loans were provided to private sector firms to construct 12 centers for the servicing of agricultural equipment. In addition, about 100 small village workshop owners received loans averaging LE 25,000 for improvement of their workshops.
- Long-term training in agricultural mechanization and agricultural economics was completed. Several groups of Egyptian trainees received short-term (three to six months) training in the U.S. and other countries in the techniques of technology transfer.
- In an effort to establish a local capability for farm machine manufacture, the project developed seed drills, threshers and land planes.

Implementing Office: Office of Agriculture (AGR/A), extension 3214.

CANAL MAINTENANCE (263-0035)

Purpose: To procure equipment for dredging, earthmoving and general maintenance of irrigation canals to sustain agricultural levels in Egypt.

Description: This project addressed one of the major agricultural problems Egypt faces - a declining water flow in the irrigation canals caused by silting and weed growth. The 26,000 miles of canals and drains must be continuously maintained or a serious decline in food production could occur. Procurement of dredging, earth moving and general maintenance equipment under the project was undertaken to enable the Egyptian Government to reverse the declining water flow trend and thereby sustain agricultural production levels.

The Egyptian Dredging Company was the primary Egyptian implementing agent. The U.S. consultant was *Louis Berger International* and the U.S. contractors were *Dixie Dredge Co.*, *Caterpillar*, *John Deere*, *International Harvester*, *U.S. Trucks*, *Cedec Inc.*, *Lorain Koehring*, *Toyomenka*, *Rassow*, *International Trade Agency* and *U.S. International*.

<u>Current Status:</u>	Completed
Duration:	FY 77 - FY 84
Total Project Funding:	\$30.0 Million

Accomplishments:

- Procurement of all excavation and service equipment, with the exception of floating maintenance equipment, was completed and the equipment was put into operation. Following unsuccessful efforts to produce floating dredge maintenance equipment, the Egyptian Dredging Company decided not to procure the equipment. USAID then reprogrammed \$1 million provided under the project.
- Over the life of the project, over 100 million cubic meters of canal excavation was accomplished. This led to flow increases in selected canals after cleaning, ranging from 25 to 90 percent.

Implementing Office: Office of Urban Administration and Development (DR/UAD), extension 3318.

IRRIGATION PUMPING (263-0040)

Purpose: To improve the reliability and efficiency of the irrigation system serving an agricultural area in Upper Egypt of about 128,000 feddans (123,000 acres) and about 39,000 farm families.

Description: This project provided for the installation of large centrifugal irrigation pumps at 37 stations along the Nile in Upper Egypt. The improved capacity of these stations makes possible three to four crop yields per year.

The primary Egyptian implementing agent was the Ministry of Public Works and Water Resources (MPWWR). *Patterson Pump Company* (PPC) supplied and installed the pumps.

<u>Current Status:</u>	Completed
Duration:	FY 77 - FY 85
Total Project Funding:	\$18.9 Million

Accomplishments:

- Civil works have been completed at all stations. All pumping equipment was delivered.
- Out of 36 pumping stations constructed 33 are operating, while the remaining three are not yet connected with electrical power.
- Defects still exist in some of the pumping stations. The MPWWR and PPC are assessing the status of each pump station with the objective of determining actions required to get all pump stations working.

Implementing Office: Office of Urban Administration and Development (DR/UAD), extension 3318.

AGRICULTURAL DEVELOPMENT SYSTEMS (263-0041)

Purpose: To strengthen the Ministry of Agriculture and Land Reclamation's (MALR) capability to plan and conduct development activities that encourage production and profitability in agriculture.

Description: This project financed about 35 research activities in agricultural economics and horticulture under a technical assistance contract between the MALR and the *University of California*. In addition, special feasibility studies were financed in agricultural statistics, libraries and livestock. The focus of the studies was on providing the MALR with recommendations for improving production and profitability in agriculture.

The primary Egyptian implementing agent was the MALR.

<u>Current Status:</u>	Completed
Duration:	FY 77 - FY 86
Total Project Funding:	\$14.9 Million

Accomplishments:

- The University of California at Davis, the original U.S. technical assistance contractor, worked closely with Egyptian officials and completed a range of studies focusing primarily on agricultural economics (19 studies) and horticultural research (16 studies). Special studies were carried out in the areas of agricultural statistics, agricultural libraries and livestock production.
- Improved varieties of horticultural crops including tomato, garlic, grape, mango, citrus and cucumbers were developed and introduced to farmers. It is estimated that the increase in farm income due to greater tomato production equals the total U.S. contribution to the project.
- A project evaluation confirmed the studies have made significant contributions to increasing both agricultural production and profitability, and a number of the research activities are worthy of continuation.
- Several Egyptian participants completed short-term training courses in the U.S.
- Three long-term Egyptian Ph.D. participants, two in agricultural economics and one in statistics, completed their training in 1986.

Implementing Office: Office of Agriculture (AGR/A), extension 3214.

POULTRY IMPROVEMENT (263-0060)

Purpose: To assist the Government of Egypt in meeting its long-term goal of increasing egg and poultry meat production.

Description: This project was designed to assist the Ministry of Agriculture and Land Reclamation (MALR) in improving delivery of eggs and poultry meat in the rural communities of Egypt.

The principal project tasks were (1) improving the MALR capacity to assess production needs in the poultry sector; (2) improving three demonstration breeding/hatching farms; (3) providing recommendations for a national breed and hatchery improvement program; (4) making policy recommendations to the Egyptian General Poultry Company; (5) developing a plan to increase the availability of poultry pharmaceuticals; (6) conducting studies on the role of village chicken flocks in the poultry industry; (7) conducting a poultry vaccine and pharmaceutical domestic demand study; (8) developing and establishing a disease program for selected breeding/hatching farms and traditional hatcheries; and (9) providing commodities, training and technical assistance to establish three additional breeding/hatching poultry farms.

The U.S. contractor *Experience Incorporated* provided technical assistance to the primary Egyptian implementing agent, the MALR.

Current Status:	Completed
Duration:	FY 77 - FY 84
Total Project Funding:	\$5.4 Million

Accomplishments:

- Several parts of the project were successfully completed and have assisted MALR in increasing egg and poultry meat production. Multi-story, brick poultry houses, using improved breeds, have replaced small village flocks and raised production levels.
- A study of poultry vaccine and pharmaceutical demand was completed. A disease control program for selected breeding/hatching farms and traditional hatcheries was developed and established.
- Procurement of materials and equipment for improving the three demonstration breeding/hatching farms was completed. Construction of three additional breeding/hatching farms was begun, but work progressed so unsatisfactorily that USAID discontinued support for the activity.
- A project evaluation conducted in September 1983 was unfavorable, and USAID terminated its involvement in the project in September 1983 with less than half the original objectives achieved.

Implementing Office: Office of Agriculture (AGR/A), extension 3214.

AQUACULTURE DEVELOPMENT (263-0064)

Purpose: To develop the economic capacity for sustained development of the fish farming industry by improving the aquacultural institutions responsible for planning and coordination, applied research, training and extension.

Description: The project established a National Aquaculture Center (NAC) at Abbasa in the Sharkia Governorate to conduct training and applied research and to provide extension services to the Egyptian aquaculture industry. The project provided funding for technical assistance, construction, commodity procurement and an extensive program of training.

The Egyptian implementing agent was the Ministry of Agriculture and Land Reclamation (MALR). *Transcentury Corp.* provided procurement services to the MALR.

<u>Current Status:</u>	Completed
Duration:	FY 78 - FY 88
Total Project Funding:	\$22.6 Million

Accomplishments:

- Aquaculture research activities began at the National Aquaculture Center at the end of 1986.
- USAID-funded construction, including staff housing and the research and training facility, is now complete. The National Aquaculture Center (NAC) was formally dedicated in March 1987.
- Under the project, 26 Egyptians attended U.S. universities in preparation for working with NAC.

Implementing Office: Office of Agriculture (AGR/A), extension 3214.

MAJOR CEREALS IMPROVEMENT SYSTEM (263-0070)

Purpose: To provide small farmers in selected areas with improved agronomic technology to increase cereal production by 25 percent and legume and forage production by 20 percent. To establish an Egyptian capacity for continuing to develop and extend such technology.

Description: This project developed improved methods and practices for increasing the production of cereal grains, grain legumes and forages through improving Egyptian research, training and extension capabilities. With technical assistance from a U.S. contractor, *Consortium for International Development*, the project concentrated on developing and extending to farmers packages of improved agronomic methods and practices. The project also strengthened the Ministry of Agriculture and Land Reclamation's (MALR) ability to develop and extend the use of these technical packages. Accordingly, project efforts focused on research, extension, training, seed production and mechanized processing. The MALR was provided with the technical services, improved physical facilities, supplies, equipment and training necessary to improve its capacity to develop and extend improved agronomic methods and practices.

The primary Egyptian implementing agent was the MALR.

<u>Current Status:</u>	Completed
Duration:	FY 79 - FY 87
Total Project Funding:	\$52.2 Million

Accomplishments:

- Research showed that improved packages of agronomic methods and better varieties of seed could increase yields by over 45 percent. The slow rate of adoption by farmers increased significantly after prices were raised to near free-market levels; since 1986 wheat production has increased by 47 percent.
- Four seed processing plants were constructed and are now operational.
- More than 60 Egyptians received training on operation of the seed processing plants.
- One hundred and fifty Egyptians received training in such fields as agronomy, soil utilization and plant breeding.
- The agricultural machinery manufacture component of the project developed seed drills, threshers and land planes that are currently being tested. This component of the project was aimed at establishing local capability for farm machinery manufacturing.

Implementing Office: Office of Agriculture (AGR/A), extension 3214.

SMALL FARMER PRODUCTION (263-0079)

Purpose: To develop and apply an improved and replicable pilot agricultural credit and farm production input system.

Description: This project assisted the Principal Bank for Development and Agricultural Credit (PBDAC) in improving its delivery system for production inputs, expanding its short, medium and long-term credit facilities and strengthening bank administration and related customer services. The project provided technical assistance, training, capitalization of loan funds, construction of facilities and support for evaluation and analysis.

The U.S. contractor was *Agricultural Cooperative Development International (ACDI)*. The primary Egyptian implementing agent was the PBDAC.

<u>Current Status:</u>	Completed
Duration:	FY 79 - FY 87
Total Project Funding:	\$49 Million

Accomplishments:

- ACDI worked closely with the PBDAC to develop a highly effective credit and extension system, now operational in 79 village banks in three governorates. The PBDAC has issued 150,000 loans valued at about LE 95 million to 90,000 farmers, with a delinquency rate of less than one percent.
- The PBDAC has been strengthened by:(1) unifying the credit delivery system on a district basis; (2) improving the bank's management information and accounting systems; (3) incorporating a farm management program; (4) upgrading the training program at the governorate level; (5) broadening lending policies and procedures; and (6) improving other bank services to both rural customers and farmers.
- The project has been very successful in demonstrating that the proper mix of credit and farm management advice can significantly increase incomes to small farmers. The PBDAC and the Ministry of Agriculture are replicating this approach in at least eight other governorates. The system pioneered in this project is being further refined under the Agricultural Production and Credit project (263-0202).

Implementing Office: Office of Agricultural Credit and Economics (AGR/ACE), extension 3207.

AGRICULTURAL COOPERATIVE MARKETING (263-0095)

Purpose: To increase the efficiency and effectiveness of Egyptian agricultural marketing cooperatives; to provide sufficient capital for production credit to stimulate a 30 percent increase in fruit and vegetable production; and to establish an institutional capability in the cooperative network to provide marketing guidance, cooperative development and management assistance to farmers and other pilot cooperatives.

Description: This project provided assistance to establish alternative approaches to managing cooperatives in Egypt. The project was designed based on joint USAID-IBRD funding. When IBRD declined to participate, USAID agreed to finance the production credit component and provide limited technical assistance, through the *Cooperative League of the U.S.A. (CLUSA)*.

The primary Egyptian implementing agent was the Ministry of Agriculture and Land Reclamation.

<u>Current Status:</u>	Completed
<u>Duration:</u>	FY 79 - FY 83
<u>Total Project Funding:</u>	\$4.7 Million

Accomplishments:

- Limited progress was made in the provision of credit to seven fruit and vegetable cooperatives, primarily in the Delta region of Egypt.
- Only marginal progress was made in developing marketing structures for cooperatives and conducting related surveys.

Implementing Office: Office of Agriculture (AGR/A), extension 3214.

SMALL SCALE AGRICULTURAL ACTIVITIES (263-0096)

Purpose: To introduce and adapt technologies appropriate to small farmers and the rural community; to develop the capacity in the Ministry of Agriculture and Land Reclamation (MALR) for addressing appropriate technology concerns and needs in rural communities; and to increase rural employment opportunities through the expansion of small rural based agribusiness enterprises.

Description: This project's original focus was on modification of farm equipment to increase efficiency and output. This focus was later expanded to include introduction of small scale technology such as biogas generation and farm employment generating activities such as silk weaving. Literacy and other community improvement programs were also components of the project. Activities were implemented in the Delta, Upper Egypt and the Sinai.

The primary Egyptian implementing agent was the MALR.

<u>Current Status:</u>	Completed
Duration:	FY 79 - FY 84
Total Project Funding:	\$1.6 Million

Accomplishments:

- The project exceeded its target in terms of the numbers of appropriate technology subprojects it sponsored. Fifty-two subproject technologies in six different areas (food processing, rural development, pest control, plant production, animal production and irrigation/soil preparation) were introduced. Most were favorably evaluated on the basis of appropriateness, replicability, cost effectiveness, adoption and effective use. However, limited follow-on resulted in a low level of adoption and little impact on rural employment.
- The appropriate technologies introduced included biogas generation for household heating, machinery repair, beekeeping and silkworm rearing.
- Through limited project assistance to the MALR, an interest in and focus on appropriate technology was encouraged and developed. This interest led to the establishment in 1984 of an appropriate technology division in the Ministry's Agricultural Mechanization Research Institute.

Implementing Office: Office of Agriculture (AGR/A), extension 3214.

AGRICULTURAL MANAGEMENT DEVELOPMENT (263-0116)

Purpose: To improve the Ministry of Agriculture and Land Reclamation's (MALR) management development through the establishment of a Center for Agricultural Management Development (CAMD).

Description: Few of the MALR's more than 150,000 employees had received any systematic training in management of personnel and other resources. To address this problem, this project financed and established the Agricultural Management Development Center. The project expanded training programs developed under an earlier USAID pilot project designed to improve management skills of over 3,000 mid-level managers in eight Egyptian governorates. Internal management analyses were also conducted to help solve the Ministry's operational management problems. The project provided technical assistance, physical construction of a new training center north of Cairo and equipment and supplies in support of the program.

Training was provided through the *U.S. Department of Agriculture (USDA)* and the *University of Miami*. The primary Egyptian implementing agent was the MALR.

Current Status:	Completed
Duration:	FY 80 - FY 86
Total Project Funding:	\$4.1 Million

Accomplishments:

- Construction of office and dormitory buildings for the center and refurbishment of the main center building and of other existing facilities is complete.
- During the project, the basic management training course for mid-level managers was refined and expanded, shifting from English to Arabic and drawing case studies from Egyptian agriculture. Further courses were developed for senior managers. The CAMD library is considered a valuable source of management development materials with over 3,000 volumes.
- CAMD staff received short and long-term training at the *USDA* and long-term training (Masters level) at the *University of Miami*. CAMD continues to provide management training for both MALR and the staff of other ministries.
- At the request of the MALR, the project added five additional governorates to the area served by the project, bringing the total number of participating governorates to 13.
- An evaluation conducted in 1985 concluded that the CAMD is a successful training center and that its activities are having a positive impact on national agricultural programs.

Implementing Office: Office of Agriculture (AGR/A), extension 3214.

AGRICULTURAL DATA COLLECTION & ANALYSIS (263-0142)

Purpose: To improve the capacity of the Ministry of Agriculture and Land Reclamation (MALR) to collect and analyze agricultural economic data, and to upgrade policy formulation efforts through the use of improved information.

Description: This project assisted the MALR in improving its data collection and analysis capability by providing technical assistance and other support to the Ministry's Agricultural Economics and Statistics Undersecretariat and to the Agricultural Economics Research Institute (AERI). Specifically, the project financed:

- Short-term planning teams to assist in solving data analysis problems of the MALR.
- Extensive training in data collection and analysis for MALR and AERI staffs.
- Limited procurement of equipment.
- Local consulting services.

The *U.S. Department of Agriculture (USDA)* provided technical assistance and *Winrock International* was a consultant to the primary Egyptian implementing agent, the MALR.

<u>Current Status:</u>	Completed
Duration:	FY 80 - FY 88
Total Project Funding:	\$5.0 Million

Accomplishments:

- *USDA* has successfully provided technology transfer in the design and conduct of data collection and analysis from project activities, through technical assistance and training. The *USDA* is continuing its activities under the National Agricultural Research project (263-0152).
- *Winrock International* teams completed policy reports on meat production and alternatives, horticulture marketing, irrigation in the new lands, analysis of the seed industry and agricultural mechanization. The MALR has accepted all but the horticulture and mechanization recommendations.
- Site preparation and installation of a central computer system for national data collection is complete. A resident *USDA* computer advisor was responsible for installation and initial operations of the system.

Implementing Office: Office of Agriculture (AGR/A), extension 3214.

PRIVATE SECTOR ASSISTANCE PROFILE

For several decades, proliferation of public enterprises, combined with the regulatory environment favoring them, has severely constrained private sector growth. Simultaneously, surplus labor, inefficient production and management that has led to a lack of profitability, has stifled the output of public enterprises. Trade policies which employ import and export bans and restrictions to protect inefficient import substitution industries have stifled trade. A second generation of problems which hamper investment and productivity includes lack of access to: appropriate technology, accurate market information, credit to small and micro businesses, and a scarcity of well-trained private sector managers.

USAID plans a significant expansion of its private sector program. In FY 92, USAID plans to initiate a major sector reform grant program to encourage the elimination of market distortions. USAID will also provide technical assistance and financial support to the Egyptian government to implement policy reforms in the fiscal, financial and banking sectors. USAID is developing the Egyptian Center for Economic Studies project to support a private sector think tank in its efforts to analyze economic and business affairs, and to serve as an advocate of continuing reform toward a free market economy. USAID is providing technical assistance to the Public Enterprise Office (PEO), the GOE's agency responsible for carrying out privatization. USAID is helping the PEO to design and implement a program for privatizing state-owned enterprises (SOEs). USAID support for the Mission's Private Sector Commodity Import Program (CIP) will continue in order to expand trade and investment relations between the U.S. and Egypt and access to U.S. technology. The recently obligated Export Enterprise Development (EED) project will be the institutional vehicle for promoting Egyptian exports to Europe and the Middle Eastern region, capitalizing on the trade reforms we are supporting through the cash transfer. The Mission plans to take advantage of the improving economic environment to introduce a new investment promotion program in FY 94. The Mission will continue to support small and microenterprise activities, expanding the program to other urban areas of the country.

USAID continues to support the International Executive Service Corps (IESC) activities in Egypt. In the past 11 years IESC-Egypt has completed over 400 volunteer projects designed to enhance the competitiveness of Egyptian private enterprises. The USAID financed small business credit programs have provided 10,000 loans to over 5,000 new SME borrowers; to date the repayment rate has exceeded 97%.

Recent GOE policy initiatives demonstrate a serious commitment to changes in focus towards a free market economy. These initiatives offer an opportunity to support the continued growth of a vital private sector which can help Egypt achieve its economic goals. The establishment of the PEO constitutes a critical first step in initiating a meaningful privatization program. The USAID-financed SME project activities have demonstrated the viability of lending to SMEs and have created a broad base of support for SME development among GOE and business leaders.

THE EXPORT ENTERPRISE DEVELOPMENT PROJECT (263-0226)

Purpose: The project supports the Trade Development Center's efforts to promote Egyptian exports, to increase export earnings, and show the benefits of an export-led development strategy.

Description: The project is designed to assist Egyptian firms to export from two non-traditional export sectors--fruits (non-citrus) and vegetables, and light manufacturing. The project concentrates on introducing and expanding exports in these product categories to two principal target markets-- Europe and the Middle East. It provides export related business services and hands-on assistance to Egyptian private sector producers to assure successful export transactions. The project also develops and disseminates promotional material and assists Egyptian exporters in sales presentations to importers. TDC will create and maintain an information base in order to more rapidly assist Egyptian exporters and potential importers of Egyptian products.

<u>Current Status:</u>	Active
Duration:	FY 92-97
Approved Total Funding:	\$10 million
Funding to Date:	\$863,549

Accomplishments:

- The Grant Agreement with the Government of Egypt was signed in January of 1992 and the Cooperative Agreement with the U.S./Egypt Joint Business Council was signed on March 17, 1992. The Trade Development Center is an activity, wholly funded by USAID under the Joint Business Council.
- The activities of the Trade Development Center began slightly more than two months ago. Staffing is complete, and the first year's work plan has been developed.
- European exhibitions have been created.
- Two trade missions have been completed.
- Project-assisted exports exceeded \$1.3 million. The full year's goal is \$12 million.
- A Request for Proposal which will provide funding for the Technical Assistance Contractor to assist TDC has been completed and is out for bids.

Implementing Office: Office of Finance and Investment (TI/FI), extension 3247.

PRIVATE ENTERPRISE CREDIT (263-0201)

Purpose: To expand investment of productive private sector enterprises and increase the private sector's contribution to Egyptian productive output.

Description: The project's credit facilities build upon previous experience with Production Credit (263-0147) and the Private Investment Encouragement (PIE) Fund (263-0097). There are three credit components:

- \$984.35 million Private Sector Commodity Import Program (263-0201.01), to finance the importation of raw materials, intermediate capital equipment and imported equipment needs for project financing.
- The Project Finance Facility (PFF; 263-0201.02), will support the start-up or expansion of medium to large-scale companies.
- The \$40.4 million Small-Scale Enterprise (SSE) Credit Guarantee Fund, will encourage Egyptian banks to use Egyptian Pounds to support small-scale enterprises.

The primary Egyptian implementing agents are the Ministry of International Cooperation (MIC) and the recently-organized Credit Guarantee Corp. (CGC).

Current Status:	Active
Duration:	FY 86 - FY 93
Approved Total Funding:	\$984.35 Million
Funding to Date:	\$661.9 Million

Accomplishments:

- Implementation progress of the Private Sector Commodity Import Program (263-0201.01) is presented in section I.B. of this report.
- Ten Egyptian banks have formed the Credit Guarantee Corporation and have pledged L.E. 200,000 each to establish the SSE fund. MIC will provide the corporation with a L.E. 60 million soft loan. Loans will be in the range L.E. 25,000 to L.E. 250,000 and the CGC will guarantee up to 50 percent of the loan principal.

Implementing Office: Office of Finance and Investment (TI/FI), extension 3247.

SMALL AND MICRO ENTERPRISES (263-0212)

Purpose: To provide a model of successful lending to small and micro entrepreneurs by utilizing the private sector as a bridging mechanism between existing financial institutions and the informal but productive economic state of Egypt to expand production and employment among small (six to fifteen employees) and micro (one to five employees) enterprises in Cairo and Alexandria.

Description: The project will supply credit and technical assistance to two private foundations that will be established to manage the delivery of credit, technical assistance and training to small entrepreneurs. Small and micro enterprises, while an important employer of large numbers of low-income urban Egyptians, have been constrained in development by lack of access to credit and technical services. The Foundations will establish collateral funds with local banks and use overdraft privileges to make loans, leveraged on a ratio of two to one, once credit worthiness is established.

The primary Egyptian implementing agents are the Alexandria Businessmen's Association and the Egyptian Small Enterprise Development Foundation in Cairo.

<u>Current Status:</u>	Active
Duration:	FY 88 - FY 95
Approved Funding to Date	\$20.0 Million

Accomplishments:

- Two strong Foundations have been established to serve as small and micro enterprises lending institutions. One foundation has reached operational self-sufficiency in only two years. The other foundation has achieved 50% operational self-sufficiency in one year of end use lending. Both foundations have received initial funding from USAID.
- To date 10,000 loans valued at over L.E 23 million have been made to approximately 5000 Egyptian firms that had no prior access to credit from financial institutions.
- The project has demonstrated that small and micro enterprise borrowers are credit-worthy; loan repayment rate exceeds 97%.
- Other groups of businesses are now forming new foundations to join the sub-lending program.

Implementing Office: Office of Finance and Investment (TI/FI), extension 3247.

BUSINESS SUPPORT AND INVESTMENT (263-0159)

Purpose: To accelerate real growth of the Egyptian private sector and promote increased private investment.

Description: The project was to assist the Egyptian government in improving the business and investment climate in Egypt. Project activities assisted selected private firms through:

- Institutional development for the Capital Market Authority.
- Support to the General Authority for Investment and Free Zones (GAFI).
- *International Executive Service Corps. (IESC)* assistance to Egyptian businesses.
- Improvement of accounting and auditing standards.

The primary Egyptian implementing agent was GAFI.

<u>Current Status:</u>	Completed
Duration:	FY 83 - FY 88
Total Project Funding:	\$3.5 Million

Accomplishments:

- Implementation of capital market activities, including technical assistance, commodities procurement and a training program was completed.
- A program of training, technical assistance and equipment procurement to improve the capability of the GAFI to assist private sector firms was completed.
- Eighty Egyptian firms worked with advisors supplied by the IESC to increase their productivity and profitability. The Egyptian IESC program is now the largest in any country. The three sub-activities under IESC (Volunteer Executive, ABLE, and Joint-Venture assistance) are being continued under the Technical Cooperation and Feasibility Studies Project (263-0102) and are well-received by the GOE and the Egyptian private sector.
- An Egyptian Institute of Accountants and Auditors was established to provide professional continuing education programs. Accounting and auditing standards were revised.

Implementing Office: Office of Finance and Investment (TI/FI), extension 3247.

PRIVATE SECTOR FEASIBILITY STUDIES (263-0112)

Purpose: To stimulate and encourage U.S. private sector investment in Egypt.

Description: USAID originally granted \$5 million to provide the General Authority for Investment and Free Zones (GAFI) with technical assistance and funding to undertake several activities to promote and encourage investment in Egypt. Recently implementation responsibilities were shifted from GAFI to the U.S. Investment Promotion Office (USIPO), a private sector business organization. The principal activity is sharing the financial costs with U.S. firms and investors of undertaking reconnaissance visits or feasibility studies for possible investments in Egypt.

Bonafide U.S. applicants may be reimbursed up to a maximum of \$150,000 on a "cost sharing" basis for pre-approved study costs. Only direct costs, not overhead and profit, related to the visit or study will be reimbursed by the project. The applicant, which must be a U.S. company or an investor, can undertake the feasibility study with its own resources or subcontract for part or all of the study effort. Funds are also available to Egyptian firms for the development of investment profiles or prospectuses and reconnaissance visits to the U.S. The Egyptian implementing agent is USIPO.

<u>Current Status:</u>	Completed
Duration:	FY 79 - FY 91
Approved Total Funding:	\$8 Million
Funding to Date:	\$8 Million

Accomplishments:

- In the early years the project financed sectoral studies of selected industries to provide information and targets of opportunity for potential investors. A three man GAFI staff was trained and assigned to manage the program.
- In 1986 a targeted investment promotion approach involving the development of prospectuses on investment opportunities was instituted and resulted in increased U.S. investment interest and activity. In 1988 the management of the project was transferred to USIPO.
- The revised strategy has resulted in the identification of some 104 projects for joint venture promotion. Prospectuses have been completed for 39 projects. Some 25 reconnaissance visits have been completed, 22 feasibility studies have been finalized and 10 are in process. To date three joint ventures have come on stream and four more are pending. As a result of project assistance to Egyptian investors other investments without a U.S. partner have been stimulated.

Implementing Office: Office of Finance and Investment (TI/FI), extension 3247.

INDUSTRY SECTOR PROFILE

The Government of Egypt (GOE) regards industry as a key sector for generating new jobs in the rapidly expanding labor force and for increasing exports to generate foreign exchange. The GOE pledged renewed commitment to expanding both private sector productive activities and public sector production. While there is growing interest in increasing the opportunities for private entrepreneurs, there is also strong, lingering support among many GOE policy makers for a dominant public sector role in production and employment generation.

To make the industrial sector vibrant, government regulations and controls on businesses must be relaxed to allow private sector firms to compete on equal terms with public sector firms; prices of industrial inputs and outputs should be moved toward free market levels and banking and credit policies should be reformed. Since interest rates for industrial and agricultural investment are relatively lower than those for commercial loans, banks prefer lending to the latter. Strong government controls over new industrial investment applications also discourage new private sector investment. Excessive collateral requirements from banks discourage small-scale enterprise lending.

A basis for optimism is the exchange rate reforms of May 1987 and recognition of the private sector's critical role. For example, the current five-year plan targets new private sector investment at LE 18 billion (\$8.2 billion), or 50 percent of total planned investment. Also, privatization is being discussed publicly by government officials as a mechanism for increasing productivity.

USAID projects are designed to promote the role of the private sector, including small and micro enterprise, in Egyptian industry and commerce by: a) improving productivity and expanding production in selected private sector industries through innovative finance mechanisms; and b) developing systems for provision of foreign exchange term credit to private businesses. Though USAID has supported productivity improvements in key public sector industries in the past, future project assistance will be offered to improve investment opportunities for private sector industries.

PRIVATE INVESTMENT ENCOURAGEMENT (PIE) (263-0097)

Purpose: To provide resources for medium to long-term credit for private sector projects with co-financing and guarantees provided by participating banks. The objective is to stimulate local private sector investment for increased production and productivity.

Description: The Private Investment Encouragement Fund (PIEF) offers medium to long-term credit for private sector medium to large scale start-up or expansion projects, on a co-financing basis through authorized participating banks. The fund provides credit for the importation of U.S. equipment and essential services.

The primary Egyptian implementing office was originally the General Authority for Investment and Free Zones (GAFI). However, recently the project has been redesigned, with short-term credit as well, and with loan procedures streamlined along the lines of the Private Enterprise Credit Project (263-0201). The new implementing agent is the Ministry of International Cooperation.

<u>Current Status:</u>	Completed
Duration:	FY 79 - FY 91
Approved Total Funding:	\$33 Million
Funding to Date:	\$33 Million

Accomplishments:

- Under the original project design, eight loan applications have been approved by the PIEF Advisory Board and USAID for total loan commitments of \$17 million. Total investments in these projects exceed L.E. 157 million and have resulted in 2,700 new jobs.
- Major new investments which have utilized PIE Fund loans include the Misr Pioneer Seed Company in Menoufiya Governorate, which produces high-quality corn seed and the General Motors of Egypt truck plant.
- Participating banks have been encouraged to engage in long-term lending and have developed the skills and capabilities in project appraisal and long-term finance.
- The approved Private Enterprise Credit project (263-0201) now incorporates PIE Fund activities and follow-up private sector term credit funding will be disbursed under this project.

Implementing Office: Office of Finance and Investment (T/FI), extension 3247.

INDUSTRIAL PRODUCTION (263-0101)

Purpose: To assist the Ministry of Industry (MOI) in the planning, design and implementation of subprojects aimed at rehabilitating, modernizing and expanding public industrial companies in Egypt.

Description: The project provides financing for the Government of Egypt's efforts to modernize and expand existing public sector industrial companies. Funds are also provided under the project to improve environmental control and reduce harmful emissions from existing plants. Training is being provided for about 825 MOI personnel and plant managers in project planning and implementation, industrial operations analysis and pollution control. The primary Egyptian implementing agent is the General Organization for Industrialization (GOFI).

Current Status:	Completed
Duration:	FY 78 - FY 92
Approved Total Funding:	\$145 Million
Funding to Date:	\$130 Million

Accomplishments:

- A total of \$129.6 million has been provided to public sector firms through GOFI in support of subprojects aimed at rehabilitating, modernizing and expanding these firms.
- 0101.03 - El Nasr Steel Pipes and Fittings. All construction is complete and production of welded steel pipe began in April 1988. The plant has a capacity of 60,000 tons per year with half scheduled for export.
- 101.04 - Egyptian Company for Refractories. Long lead items such as a calcinating plant, tunnel kilns, dryers and presses have been delivered to site and erection is underway.
- 0101.06 - Sinai Manganese Co. Construction of a 300,000 tons per year calcinated gypsum plant is finished and production is about to start.
- 0101.07 - National Metal Industries Co. Installation of two 35 tons/hour electric arc furnaces and a continuous casting facility to raise steel billet output to 160,000 tons/year is finished and commissioning is underway.
- 0101.10 - Industrial Pollution Control. Improvements in pollution control are in progress at five industrial locations.
- The capability of the MOI for planning, design and implementation of the subprojects has been continually strengthened by the provision of managerial and other technical assistance and training by the U.S. contractors *Weston International* and the *American University of Cairo*.

Implementing Office: Office of Development Resources, (DR/ENG) ext. 3316.

MEHALLA TEXTILE PLANT REHABILITATION (263-0010)

Purpose: To increase the supply of competitively priced textile products to local and foreign markets.

Description: This project financed the renovation and expansion of the Misr Spinning and Weaving Company textile complex at Mehalla El Kubra. Financing the replacement of obsolete spinning, weaving and finishing equipment, the project also funded the dollar costs of a new spinning mill and garment manufacturing plant and power and water treatment facilities. Furthermore, the project financed extensive managerial and technical assistance and staff training.

The primary Egyptian implementing agent was the Misr Spinning and Weaving Company.

<u>Current Status:</u>	Completed
Duration:	FY 76 - FY 84
Total Project Funding:	\$91 Million

Accomplishments:

- Cotton Spinning: one new mill producing cotton yarns and cotton/polyester blends and one rehabilitated mill have been in operation since 1981.
- Cotton Weaving: one weaving mill with 650 looms and various other equipment has been in operation since 1981.
- Cotton Finishing: various bleaching, dyeing, printing and finishing equipment has been operational since 1983.
- Wool Operation: about 144 wool looms and various other equipment have been in operation since 1981.
- Apparel: 212 industrial sewing machines have been operating since 1982.
- Power and Water Treatment Plants: the water treatment plant has been in full operation since May 1983; one 22 megawatt (MW) turbine has been operating commercially since 1983, and the second 22 MW unit since April 1984.

Implementing Office: Office of Finance and Investment (TI/FI), extension 3336.

**SUEZ CEMENT PLANT
(263-0012)**

Purpose: To furnish a major share of the cement requirements for the Suez and Sinai regions.

Description: This project financed the design and supply of equipment for the construction of a portland cement plant capable of producing one million tons of cement per year for the Suez Cement Company (SCC). The plant site is 60 kilometers south of Suez, adjacent to the area that supplies the raw materials.

Contractors were the *Fuller Corporation, Catasauqua, Pennsylvania.* and *H.K. Ferguson International, Cleveland, Ohio.* The Egyptian implementing agencies were the Suez Cement Company and the Egyptian Electric Authority (EEA).

<u>Current Status:</u>	Completed
Duration:	FY 76 - FY 88
Total Project Funding:	\$104.6 Million

Accomplishments:

- Construction of the plant was completed in September 1983, and performance guaranty testing was completed in May 1984.
- A final \$5 million added in FY 1986 financed spare parts, equipment modification and training.
- The plant is now in commercial operation, supplying portland cement through the Egyptian Cement sales office and private channels. Production has achieved the design capacity.

Implementing Office: Office of Finance and Investment (TI/FI), extension 3247.

DEVELOPMENT INDUSTRIAL BANK I (263-0018)

Purpose: To support the evolution of a modern, efficient private industrial sector by providing medium-term financing to Egyptian public and private sector firms to purchase U.S. equipment and related services.

Description: This project provided the Development Investment Bank of Egypt (DIB) with foreign exchange funds to support expansion of productive business activities in Egypt. USAID funds purchased U.S. equipment and related services while DIB foreign exchange from other sources procured non-U.S. goods used in priority industrial development projects. The DIB used its own resources to finance the local currency components of these projects. In addition to appraising the technical, economic and financial feasibility of the projects, the DIB examined the economic benefits to ensure consistency with Egypt's overall economic development goals.

The primary Egyptian implementing agent was the DIB.

<u>Current Status:</u>	Completed
<u>Duration:</u>	FY 76 - FY 84
<u>Total Project Funding:</u>	\$30.2 Million

Accomplishments:

- All funds, with the exception of a small residual amount, were disbursed as planned for the purchase of U.S. equipment.

Implementing Office: Office of Finance and Investment (TI/FI), extension 3247.

**DEVELOPMENT INDUSTRIAL BANK II
(263-0045)**

Purpose: To improve the Development Investment Bank's (DIB) ability to provide financing for Egypt's industrial sector, with particular emphasis on support to the private sector.

Description: This project provided assistance to improve operational management of the DIB. It focused on reorganizing the bank's operations, training bank personnel in the methods of other development institutions and providing needed equipment, including the installation of a mini-computer and other required hardware by the U.S. contractor *Price Waterhouse, Inc.*

The primary Egyptian implementing agent was DIB.

<u>Current Status:</u>	Completed
<u>Duration:</u>	FY 78 - FY 86
<u>Total Project Funding:</u>	\$1.70 Million

Accomplishments:

- A computer system was installed with the assistance of *Price Waterhouse, Inc.*

Implementing Office: Office of Finance Investment (TI/FI), extension 3247.

**QUATTAMIA CEMENT PLANT
(263-0052)**

Purpose: To furnish a large share of the cement requirements for the greater Cairo and Delta areas.

Description: This project financed the construction of a cement plant capable of producing 1.4 million tons of cement a year. The site location for the plant is about 30 kilometers east of the Cairo suburb of Maadi on the Quattamia Road, close to the site of raw materials.

The American contractors were *Polysius Services, Inc.* of Atlanta, Georgia and *M.K.- Ferguson International* of Cleveland, Ohio. The primary Egyptian implementing agents were the Suez Cement Company (SCC) and the Egyptian Electricity Authority (EEA).

<u>Current Status:</u>	Completed
Duration:	FY 78 - FY 88
Total Project Funding:	\$98.3 Million

Accomplishments:

- Plant construction is complete.
- The plant is operating at design capacity.

Implementing Office: Office of Finance and Investment (TI/FI), extension 3336.

**PORT SAID SALINES PLANT
(263-0072)**

Purpose: To increase the production of salt for domestic and export markets.

Description: This project financed the reconstruction and modernization of the Port Said Salines Plant, which was partially destroyed during the 1967 and 1973 wars with Israel. The improved plant has an output of about 194,000 metric tons per year of various types of salt used in industries such as food processing, chemicals, paper, textiles, petroleum and leather tanning.

The U.S. contractors were *STV Engineering* and *Foster Wheeler, Inc.*
The primary Egyptian implementing agent was El Nasr Salines Company.

<u>Current Status:</u>	Completed
Duration:	FY 77 - FY 85
Total Project Funding:	\$12.9 Million

Accomplishments:

- Plant construction was completed in early 1985.
- The plant was commissioned and performance testing was completed at the end of 1985. The plant is in full commercial operation.

Implementing Office: Office of Finance and Investment (TI/FI), extension 3336.

INDUSTRIAL PRODUCTIVITY IMPROVEMENT (263-0090)

Purpose: To improve industrial productivity by transferring American business know-how in management, manpower and production technology and by expanding indigenous institutional capacity to provide consulting services in these fields.

Description: This was an umbrella program with four subprojects designed to address constraints to increased industrial productivity in Egypt. The four subprojects were:

- | | |
|--|---------------|
| 1. Management Development for Productivity | (263-0090.01) |
| 2. Vocational Training for Productivity | (263-0090.02) |
| 3. Industrial Technology Application | (263-0090.03) |
| 4. Innovative Productivity Activities | (263-0090.04) |

<u>Current Status:</u>	Completed
Duration:	FY 80 - FY 88
Total Project Funding:	\$33.8 Million

Accomplishments:

Subprojects 263-0090.01, 263-0090.03, and 263-0090.04 have been completed and their status reports will be found among the completed projects at the end of this section. Subproject 263-0090.02, Vocational Training for Productivity, is presented in the Education and Training section of this report.

Implementing Office: Office of Finance and Investment (TI/FI), extension 3336.

MANAGEMENT DEVELOPMENT FOR PRODUCTIVITY (263-0090.01)

Purpose: To improve management in selected public and private sector industrial organizations and to increase the supply of and demand for effective management and organization development services in Egypt.

Description: Under this subproject, about 30 industrial firms received up to one year of intensive, hands-on, consulting, training and diagnostic services. In addition to increasing the productivity and managerial performance of these firms, subproject resources were used to develop training and public education programs geared to improving productivity.

Consulting services were provided by *Westinghouse, American Management Association, TEAM MISR* and *Delta Business Consultants*.

Current Status:	Completed
Duration:	FY 80 - FY 87
Total Project Funding:	\$7.6 Million

Accomplishments:

- Several clients serviced by the subproject have dramatically improved their productivity as a result of project services. For example, one firm is realizing annual savings of LE 5 million, another increased its production level by 35 percent, while reducing costs.
- An innovative management information system was installed to improve productivity and save costs in another firm.

Implementing Office: Office of Finance and Investment (TI/FI), extension 3336.

INDUSTRIAL TECHNOLOGY APPLICATIONS (263-0090.03)

Purpose: To increase the productivity of industrial firms by improving the selection and use of production technologies.

Description: This subproject provided industrial extension services to individual firms in the form of plant visits, diagnosis of productivity problems and provision of technical assistance and information to solve the problems identified. These activities were supplemented by a specialized technical library, general training programs and task force visits to the U.S. Through increasing reliance on Egyptian expertise, the project expanded Egyptian capacity to provide appropriate industrial extension services.

The *Georgia Institute of Technology* was the U.S. contractor assisting with the implementation of the project. Egyptian and American short-term experts complemented the professional staff of the implementing agency, the Industrial Design and Development Center (IDDC).

Current Status:	Completed
Duration:	FY 80 - FY 87
Total Project Funding:	\$8.1 Million

Accomplishments:

- The project provided for extension services to industry involving information, diagnosis of technical impediments to productivity improvements, observation visits to U.S. plants and training institutions and problem-specific technical assistance by U.S. and Egyptian consultants.
- The project conducted research and development on production in specific factories.
- During the first three years of the project, more than 290 separate engineering diagnoses for client firms were conducted.
- The project's specialized library and information center has responded to nearly 1,700 requests from client firms and remains in active use in the IDDC.

Implementing Office: Office of Finance and Investment (TI/FI), extension 3336.

INNOVATIVE PRODUCTIVITY ACTIVITIES (263-0090.04)

Purpose: To support modest-size approaches to improving industrial productivity, emphasizing the role of the private sector.

Description: Under this subproject, private and public sector Egyptian agencies responsible for industrial productivity collaborated with U.S. advisors to identify appropriate activities for financing. Activities were supported if they showed potential for improving industrial productivity with a moderate investment of additional resources, especially when the investments encouraged participation of the private sector.

U.S. contractors included *Kurt Salmon Associates, A.T. Kearney, Ralph Simms and Associates, the International Executive Service Corps (IESC)* and *Peat Marwick Hassan and Company*.

The primary Egyptian implementing agencies were the Industrial Design Development Center (IDDC) and the Federation of Industries.

Current Status: Completed
Duration: FY 81 - FY 87
Total Project Funding: \$1.9 Million

Accomplishments:

- The Egyptian Federation of Industries received support for the following activities:
 - (1) A study on the potential role of and strategy for private sector suppliers to the ready-made garment industry.
 - (2) A similar study and strategy for the automotive feeder industry, with a follow-on prefeasibility analysis of the production of a small passenger vehicle in Egypt.
 - (3) Technical assistance in the design and testing of a prototype modest size clay brick factory.
 - (4) Development of a quality-improvement training program offered by the American University Cairo for members of the Federation of Industries.
- The project supported start-up of the IESC, which provides technical advisors to industrial firms from a pool of retired executives recruited internationally. This activity was also funded through the Business Support and Investment Project (263-0159) and is now continuing under the Technical Cooperation and Feasibility Studies Project (263-0102).
- A local consulting firm (*Peat Marwick Hassan and Company*) developed a design for a management information system for the Egyptians Abroad for Investment and Development Company, a new financial institution supporting private sector industrial firms. A contract was awarded for procurement of computer hardware and related services required for the MIS. All work was completed by July 1987.

Implementing Office: Office of Finance and Investment (TI/FI), extension 3336.

ENVIRONMENT SECTOR PROFILE

Serious environmental degradation constrains not only Egypt's economic development, but the health and livelihood of its citizens. Agricultural chemicals, industrial waste, raw sewage and silt from runoff have seriously contaminated water intended for human consumption, irrigation and other uses. An estimated 60,000 die annually from water-borne diseases. Automobile and industrial emissions have severely degraded urban air quality and given rise to extremely high incidences of chronic and acute respiratory illness. Environmental problems are largely a consequence of inappropriate economic policies. In the past, heavy subsidies on all forms of energy, water, fertilizer, and pesticides have encouraged overuse of these inputs leading to serious deterioration of air and water quality. The Government of Egypt (GOE) is currently reducing these subsidies.

While USAID did not have a formal environmental strategy prior to 1992, many of its activities have had major impact on environmental protection. USAID has been most active in the wastewater sector (See Water and Wastewater Section). Since 1977 it has invested almost \$2 billion in sewage activities. AID's \$421 million investment in irrigation (See Agriculture Section) has improved management of irrigation water, one of Egypt's most critical natural resources. AID's \$1.6 billion investment in environmentally sound energy (See Energy Section) has had a significant impact on reduced air pollution. Clean renewable energy activities include major modernization of the Aswan High Dam Hydroelectric Power Plant as well as demonstrations of solar and wind technologies.

In 1992, AID developed an environmental strategy, established a new Environment Office, and redesigned two projects so that they explicitly focus on environmental problems. AID is shifting its focus from sewage collection to environmentally sound sewage treatment. AID currently is helping the GOE develop a comprehensive irrigation water planning and management capability. Electricity sector support is shifting attention from construction of power plants to increased efficiency of electricity generation, transmission and distribution.

USAID assistance has contributed to an improved environment in Egypt. Severe urban sewage flooding in Cairo, Alexandria, and the Canal Cities has been virtually eliminated. With the completion of sewage projects now underway, 17 million people in eight recipient cities will be receiving improved sewage services. Industrial energy conservation activities are protecting air quality. Combustion tune-ups of 38 industrial boilers reduced emissions of SO_x by 31% (550 tons/month), and NO_x by 18% (4 tons/month), while cutting fuel consumption by 8% (\$8 million/year). The Talkha Combined Cycle Power Plant is producing an additional 110 megawatts of electricity with no additional fuel consumption and thus no additional air pollution emissions.

USAID is committed to protecting the environment. Completed and on-going projects have already had positive environmental impact. Implementation of USAID's new environmental strategy promises to have even greater impact in the years ahead.

USAID CURRENT PROJECTS PROTECTING THE ENVIRONMENT

1. Projects Protecting Fresh-Water Resources

a. Alexandria Wastewater System Expansion (263-0100)

Duration: 1977-1993

LOP Funding: \$390.0M

This project finances design, construction and start-up of a sewage development program which will alleviate sewage flooding in residential areas and disposal of raw sewage in recreational beaches.

b. Provincial Cities Development (263-0127 and 161.03)

Duration. 1984-1994

LOP Funding: \$110.0M

Project helps three provincial city governments (Fayoum, El Minia and Beni Suef) effectively plan, budget, build and maintain urban infrastructure and to improve water and wastewater systems.

c. Cairo Sewerage II (263-0173)

Duration: 1984-1994

LOP Funding: \$816.0M

Project expands the Cairo sewage collection system into the largely unsewered areas on the west bank of the Nile and increase the capacity of the associated treatment plants.

d. Canal Cities Water and Wastewater II (263-0174)

Duration: 1987-1997

LOP Funding: \$380.0M

Project further improves the delivery of water and wastewater services in the Canal Cities of Port Said, Ismailia and Suez.

e. Water and Wastewater Institutional Support (263-0176)

Duration: 1985-1994

LOP Funding: \$15.0M

Project enhances the capability of the Ministry of Housing and Public Utilities (MHPU) and its executive agency, the National Organization for Potable Water and Sanitary Drainage (NOPWASD), in meeting municipal water and wastewater needs throughout Egypt.

f. **Local Development (LDID) (263-0182)**

Duration: 1985-1993

LOP Funding: \$481.0M

Project improves the quality of life of low-income residents in rural and urban Egypt by providing improved basic services, which include substantial water and wastewater activities.

g. **Irrigation Management Systems (263-0132)**

Duration: 1981-1995

LOP Funding: \$340.0M

Project helps Egypt improve the operating efficiency of its irrigation system and strengthens the Ministry of Public Works and Water Resources (MPWWR) operational, maintenance and water resource planning capabilities. Project is giving increased attention to water quality issues.

h. **National Agricultural Research (263-0152)**

Duration: 1985-1994

LOP Funding: \$300.0M

Project improves Egypt's capability to provide farmers with productivity-increasing technologies in a supportive policy environment. Project is addressing water quality and reuse for agriculture, new lands development, integrated pest management and environmentally sustainable agriculture.

i. **Agricultural Production and Credit (263-0202)**

Duration: 1986-1995

LOP Funding: \$283.0M

Project assists the Government of Egypt (GOE) in deregulating the agricultural sector and provides farmers with improved financial services and expanded access to inputs, such as new technologies, in a deregulated agricultural sector. The capital component of \$250 million is to be transferred by installments to the GOE in support of agreed upon agricultural policy changes such as reduction of subsidies on fertilizers and pesticides and liberalization of their marketing.

2. Projects Protecting Air Resources

a. Rehabilitation and Modernization of the Aswan High Dam Hydroelectric Power Station (263-0160)

Duration: 1982-1995 LOP Funding: \$140.0M

This project finances the rehabilitation and modernization of the 12 hydro-turbine generators of the Aswan High Dam, hydraulic gates and related controls.

b. Alexandria Electrical Network Modernization (263-0194)

Duration: 1989-1997 LOP Funding: \$50.0M

Project improves selected areas of the electrical distribution network serving Alexandria and modernizes the control of Alexandria's sub-transmission and distribution systems.

c. Power Sector Support (263-0215)

Duration: 1989-1999 LOP Funding: \$391.0M

The project supports past and promotes future continued Government of Egypt progress in reducing electricity sector subsidies and in making other energy sector policy changes by providing capital infrastructure incentives.

d. Energy Conservation and Efficiency (263-0140.3)

Duration: 1988-1996 LOP Funding: \$49.5M

Project promotes and accelerates the adoption of improved commercial technologies, processes and practices for saving energy, increasing energy efficiency, and reducing air pollution emissions. Project is being redesigned to include other types of industrial waste in addition to energy waste.

3. Projects Supporting Environment in General

a. University Linkages (263-0118 and 0211)

Duration: 1980-1997 LOP Funding: \$47.5M

Project supports the applied research activities of Egyptian university professors to solve priority development problems. Project is giving added attention to environmental problems.

b. Science and Technology Cooperation (263-0140.01)

Duration: 1987-1995

LOP Funding: \$36.0M

Project contracts with Egyptian applied scientists and research engineers to solve priority development problems that have the greatest effect on end-users. About half of the subprojects are focusing on environmental issues: lake ecosystems, sewage disposal, industrial waste recycling, etc.

c. Population (263-0144 and 0227)

Duration: 1983-1997

LOP Funding: \$179.6M

Project strengthens and expands Egypt's population/family planning activities so as to increase family planning practice among married couples of reproductive age.

d. Development Training (263-0125)

Duration: 1985-1995

LOP Funding: \$109.0M

Project will provide cost effective education and training opportunities for key individuals in development sectors. Environmental training activities are being expanded.

e. PVO Development (263-0220)

Duration: 1991-1994

LOP Funding: \$90.0M

Project provides grants for PVO subprojects including environmental subprojects.

f. Technical Cooperation and Feasibility Studies (263-0102, 0225)

Duration: 1983-2000

LOP Funding: \$100M

Among other things, the project funds environmental studies and grants to PVOs for environmental subprojects.

SCIENCE AND TECHNOLOGY FOR DEVELOPMENT (263-0140)

Purpose: To enable the Egyptian Science and Technology (S&T) community to solve national development problems through applied research and technology in the fields of health, productivity, and science and technology.

Description: This project brings together Egyptian and USAID resources in solving complex problems in health, energy and industrial productivity. It emphasizes development problem-solving techniques to meet end-user needs.

The primary Egyptian implementing agent is the Ministry of Scientific Research and Technology.

<u>Current Status:</u>	Active
<u>Duration:</u>	FY 86 - FY 98
<u>Approved Total Funding:</u>	\$136.8 Million
<u>Funding to Date:</u>	\$ 76.0 Million

Accomplishments:

The subprojects under this umbrella program are:

- Science and Technology Cooperation (263-0140.01). Grant programs in S&T research directed at priority development problems identified by end-users.
- Schistosomiasis Research (263-0240.02). A comprehensive program of schistosomiasis research and the development of vaccine agents.
- Energy Conservation and Efficiency (263-0240.03). Improved energy use through energy-efficient technologies.
- Energy Manpower Development (263.0240.04). Improving the technical and managerial capabilities of the petroleum and electricity sector.

Implementation progress for the subprojects is described on their individual project sheets on the following pages.

Implementing Office: Office of Environment (PDS/ENV), extension 3377.

SCIENCE AND TECHNOLOGY COOPERATION (263-0140.01)

Purpose: Redirecting Egyptian Science and Technology (S&T) programs to solving priority development problems that have the greatest effect on end-users and building S&T capacities in selected technologies.

Description: The project funds about 60 grants for research in predefined, high-priority problem categories and is open to Egyptian universities, research centers and private and public sector firms. The project is divided into three major components:

- The National Research Program (NRP), focusing on solving limited, but well defined national development problems.
- The Local Development Program (LDP), addressing local/rural development problems arising from the governorate and regions of Egypt.
- The Advanced Technology Program (ATP), for advanced applications in biotechnology and computer-based technology.

The Egyptian primary implementing agent is the Ministry of Scientific Research and Technology.

Status:	Active
Duration:	FY 87 - FY 96
Approved Total Funding:	\$36.0 Million
Funding to Date:	\$17.1 Million

Accomplishments:

- The project has completed background studies and statements of work for 60 end-user identified problems in the following areas: industrial minerals and chemicals, construction materials, small-scale industries, water and wastewater treatment, lake ecosystems, biotechnology, computer applications and environmentally sound industrial technologies. The U.S. contractor, *IDEA* provided technical and management assistance.
- Egyptian researchers already have signed 35 research contracts and are addressing specific end-user identified research problems. *American Manufacturers Export Group (AMEG)* is procuring research equipment and materials for the Egyptian researchers.
- The project has helped the Egyptian S&T Information Network expand to seven sector centers in Metropolitan Cairo and regional centers in Alexandria and Ismailia. The Network enables Egyptian researchers to tap into computerized bibliographies and databases located throughout the world.

Implementing Office: Office of Environment (PDS/ENV), extension 3277.

C. BUILDING HUMAN RESOURCES

This section includes family planning, health and education projects that directly support the development of human resources and improve the living standards of the Egyptian people.

Population/family planning projects are directed at reducing Egypt's high fertility rate through the delivery of modern family planning services. The projects support services delivered by both public and private sector organizations.

In education, USAID resources continue to underwrite extensive training programs to meet Egypt's requirements for professionally qualified personnel.

POPULATION SECTOR PROFILE

Within a broad context of uneven development, Egypt's annual population growth rate, currently reported by the Central Agency for Public Mobilization and Statistics (CAPMAS) to be 2.54 percent, remains one of the central constraints to the country's economic growth. The negative effects of high fertility are evident in many aspects of Egyptian life: population distribution, education, employment and health. Acknowledging that rapid population growth rates jeopardize all of Egypt's development efforts, the Egyptian Government currently invests substantially in family planning services. The President and influential religious leaders like the Grand Mufti and the Pope of the Coptic Church frequently call attention to the importance of family planning.

Since 1975, USAID has been the largest single donor to Egypt's family planning program providing about 75% of all donor assistance. As such, AID's strategy is to assist the GOE in establishing effective population policies; assure an adequate supply of contraceptives and related supplies; improve access to family planning services and information through the public and private sectors; improve service delivery and contraceptive use; and develop program coordination, management and information systems.

USAID has spent approximately \$183 million to establish an institutional framework for family planning, train Egyptian health personnel in family planning, promote and distribute contraceptive methods, provide the needed research base (both operations and applied biomedical), and to make **quality** services more available and accessible. In 1987, project efforts were reviewed and revised to put priority on the delivery of quality family planning services which are accessible and emphasize longer acting methods. Documentary evidence suggests that the positive achievements identified below are directly associated with operationalization of this revision. With these successes in expanding population and family planning programs, a new set of implementation issues arise. The Population/Family Planning III Project, currently under design, addresses these issues by building on the successes of POP/FP II but by utilizing a more focused and consolidated approach.

The most important fertility measure, the total fertility rate (the number of births a married woman would have at the end of her reproductive period), has declined from over 7 to 4.3 in the past decade. The contraceptive prevalence rate (CPR) is increasing. Since 1974-75, CPR among married women increased from 26% to 38% according to the Demographic and Health Survey (DHS). Preliminary results of the CAPMAS Maternal and Child Health Survey indicate a further increase in CPR to 47.6% as of late 1990. A DHS is scheduled for late 1992 which will provide additional information on the recent, rapid increase in CPR. Effects are finally being seen on the growth rate which has decreased from 2.7 in 1988 to 2.54 in 1990.

POPULATION (263-0144)

Purpose: To strengthen and expand Egypt's population/family planning activities so as to increase family planning practice among married couples of reproductive age.

Description: Implementing organizations are: the State Information Service, the Cairo Demographic Center, the Ministry of Health (MOH), the National Population Council (NPC), the Central Agency for Public Mobilization and Statistics (CAPMAS), Family of the Future (FOF), the Egyptian Family Planning Association (EFPA), the Ministry of Social Affairs (MOSA), and other government and private agencies. These organizations implement activities to expand and improve the administration and outreach of Egypt's family planning program. This second grant program (263-0144) is a continuation of activities initiated under the previous Family Planning program (263-0029).

<u>Current Status:</u>	Active
<u>Duration:</u>	FY 83 - FY 93
<u>Approved Total Funding:</u>	\$117.6 Million
<u>Funding to Date:</u>	\$117.5 Million

Accomplishments:

- In January 1985, President Mubarak created the National Population Council to coordinate all population/family planning activities. A National Population strategy which will serve as input to the 1992-1997 Five Year Plan has been prepared by NPC.
- Promotion and distribution of contraceptive devices through pharmacies and private physicians is encouraged through a social marketing program conducted by Family of the Future, a private sector agency. This subproject now provides over 30 percent of all the contraceptive protection in Egypt.
- Family planning clinics in about 400 MOH health units and 194 general and district hospitals in 21 governorates are in various stages of upgrade. Over 560 managers/supervisors, 2,275 physicians and 2,918 nurses have been trained to provide quality family planning services. Management systems have been analyzed resulting in the development of policy and procedure training manuals as well as training for each of the systems as part of the overall effort to expand service delivery and to improve the quality of those services.
- The EEPA's Clinical Services Improvement Project is expanding high-quality fee-for-service family planning services. As of December 1991, 112 clinics have been opened in 20 governorates.
- Through the Information, Education, and Communication Project major media campaigns promote the practice and proper use of contraception. These are broadcast regularly on TV and radio on air time donated by the Government of Egypt State Information Service.
- Contraceptive use by married women of reproductive age has increased from 30 percent in 1984 to 38 percent in late 1988.

Implementing Office: Office of Population (HRDC/P), extension 3273.

**POPULATION/FAMILY PLANNING RESEARCH
(263-0006)**

Purpose: To conduct operations research in family planning service delivery.

Description: The Office of Population in A.I.D./Washington provided funding to the American University of Cairo Social Research Center to conduct operations research in family planning service delivery in the Minufiya Governorate. The project, which was begun with A.I.D./Washington central funds and was originally referred to as A.I.D./NESA 547, included household distribution of contraceptives and surveys of knowledge, attitudes and practices of contraception. This activity was continued with bilateral funds in project 263-0029, commencing in 1977.

<u>Current Status:</u>	Completed
Duration	FY 75 - FY 77
Total Project Funding:	\$130,000

Accomplishments:

- An operations research study was completed. Findings of the study were introduced into follow-up project design considerations of project 263-0029.

Implementing Office: Office of Population (HRDC/P), extension 3273.

FAMILY PLANNING (263-0029)

Purpose: To strengthen family planning services and increase the availability and variety of contraceptive devices nationwide so that more couples practice family planning.

Description: The program was coordinated by the National Population Council (NPC) and implemented by the Ministry of Health (MOH), Ministry of Social Affairs (MOSA), the State Information Service (SIS), Central Agency for Public Mobilization & Statistics (CAPMAS), the private sector Family of the Future (FOF), and other organizations. Subactivities were designed to improve the administration and outreach of Egypt's Family Planning program, and demographic data collection and analysis. Project activities continue under the Population Project (263-0144).

<u>Current Status:</u>	Completed
Duration:	FY 77 - FY 87
Total Project Funding:	\$65.1 Million

Accomplishments:

- A family planning information education and communication program initiated by the State Information Service has been promoting family planning awareness through mass media on a nationwide basis. A recent evaluation concludes that this program has effectively spread knowledge of the need for family planning and the available contraceptive methods throughout the country.
- A social marketing program conducted by Family of the Future supported promotion and distribution of contraceptive devices in the commercial sector. Originally a Cairo-based urban program, FOF now operates throughout the country covering virtually all of Egypt's 7,500 pharmacies and most private physicians. Family of the Future has demonstrated that contraceptive social marketing is an efficient and cost-effective means for delivering family planning products to couples.
- 38 percent of married couples of reproductive age now use contraception, as compared to 26 percent in 1975. The crude birth rate stands at about 39 per thousand in 1988.

Implementing Office: Office of Population (HRDC/P), extension 3273.

HEALTH AND NUTRITION SECTOR PROFILE

Health standards continue to be a serious problem in Egypt, resulting in reduced productivity, depressed quality of life and lower life expectancy. The four leading causes of death for Egyptians of all ages are chronic heart disease, lung disease, infectious diseases and accidents. Debilitating parasitic (schistosomiasis), bacterial (typhoid, trachoma, TB) and viral (hepatitis) diseases are endemic among the adult population. Schistosomiasis is the leading cause of morbidity for all age groups. Waterborne gastrointestinal diseases strike all age groups. Prior to the current national oral rehydration program, 50 percent of all deaths were of children under age five, and half of those were due to diarrhea. Acute respiratory infections rank second among causes of child death. Malnutrition has been greatly reduced through the Egyptian Government's subsidy of basic foodstuffs, but there is still significant maternal and child malnutrition due to iron deficiency, poor weaning practices and intestinal disease.

The Egyptian Government has long given high priority to the provision of public health services. Over 3,200 clinics, nearly 500 community hospitals, and about 50 modern urban hospitals give most Egyptians access to some sort of health care. The doctor to population ratio is among the best in the developing world. However, poor quality of the public health care system, especially in primary care, results in underutilization of public health facilities. The Government of Egypt acknowledges that its health services must be improved and is facilitating change. Preventive health programs, particularly child survival programs such as oral rehydration therapy (ORT) are gaining priority. The Ministry of Health plans to introduce cost recovery mechanisms and to shift more curative health services to the private sector. The current five-year health plan (1992-1997), emphasizes the importance of preventive health care. More aggressive programs in diarrheal disease control, immunization and other interventions that combat major childhood diseases are intended. USAID's projects in this sector support preventive care, including immunizations, treatment of acute respiratory infections, and child spacing.

Between 1982 and 1988 there was a dramatic reduction in the child mortality rate from 70/1000 to 4/1000, attributed to two major USAID funded projects: the National Control of Diarrheal Disease project initiated in 1984, and the Child Survival Project in 1985. While the former focussed on Oral Rehydration Therapy, the latter focussed on three interventions: immunization for six preventable childhood diseases, early diagnosis and treatment of acute respiratory diseases and child spacing. In 1990, the Ministry of Health immunized 86% of children under the age of one, against all six preventable diseases, compared to 57% in 1984. Hepatitis B vaccination was introduced in 1992.

In order to ensure the sustainability of improved medical care, USAID is helping the Government of Egypt establish a rational financing system for health services, emphasizing cost recovery and greater participation of the private sector in the provision of health services.

COST RECOVERY PROGRAMS FOR HEALTH (263-0170)

Purpose: To establish a sound financial structure for the health sector emphasizing cost recovery systems.

Description: The project will concentrate on three areas:

- Policy changes which will allow a fee for service structure for curative care and provide the greater financial autonomy to selected curative health facilities and clinics. The implementing agency is the Ministry of Health.
- Two fee-for-service systems, currently operating in Cairo and Alexandria, will improve management techniques to increase their financial viability and expand services to a larger number of beneficiaries. Implementing Agencies are the Health Insurance Organization (HIO) and the Curative Care Organization (CCO).
- Private health care will be encouraged to provide credit guarantees to individual medical practices, to develop prepaid group practices and improve management capabilities of private physicians. The implementing agency is the Credit Guarantee Corporation.

Abt Associates, Inc., through an AID/Washington buy-in; *Cambridge Consulting Corporation*, an 8(A) firm, and *Birch & Davis, International*, are providing technical assistance to Components One and Two of the project.

<u>Current Status:</u>	Active
Duration:	FY 88 FY 96
Approved Total Funding:	\$95 million
Funding to Date:	\$30 million (\$10 million in LE equivalent was also provided to Component Three to capitalize the credit guarantee fund from the FT 800 Account.)

Accomplishments:

- Newly developed management standards will be tested in one to three MOH hospitals scheduled in FY 92 for cost recovery activities.
- To expand coverage, HIO and CCO plan to have new contractors in FY 92 develop new management information systems (MIS).
- Up to 25 banks have expressed interest in providing credit for the development of private health care practitioners. During FY 92, the first tranche to a Credit Guarantee Fund has occurred and 600 loans are to be issued in the first year of operation.

Implementing Office: Office of Health (HRDC/H), extension 3269.

SCHISTOSOMIASIS RESEARCH (263-0140.02)

Purpose: To control schistosomiasis by developing tools, methods and information through directed research and to help increase the capability of medical research institutions to conduct practical, control-oriented research.

Description: The project will fund research in predefined, high-priority categories through a grant program available to Egyptian Universities, research centers and U.S. and Egyptian private and public sector groups. The categories are: vaccine development, improved diagnostic methods, better chemotherapeutic regimens, epidemiology of schistosomiasis, socio-economic factors that affect the disease, and operations research to develop systems for delivering appropriate interventions.

U.S. contractors are *NAMRU-3, Lowell University* and *Medical Service Consultants International (MSCI)*. The Egyptian primary implementing agent is the *Ministry of Health (MOH)*.

<u>Current Status:</u>	Active
Duration:	FY 88 - FY 98
Approved Total Funding:	\$39.7 Million
Funding to Date:	\$18.0 Million

Accomplishments:

- MOH and MSCI have established a proposal review and grants management system. MSCI is providing management and technical assistance, U.S. training programs for Egyptian researchers and procurement of research equipment and supplies. NAMRU-3 provides local training and scientific collaboration with Egyptian scientists.
- Egyptian and American scientists currently are working collaboratively under 53 project research grants, including 18 grants to outstanding young Egyptian schistosomiasis researchers.
- Lowell University and the GOE Theodore Bilharz Research Institute have established an internationally acclaimed laboratory facility to provide grantees with the biological materials needed for their research.
- World-class scientists attending the project's annual technical seminars were generally optimistic that candidate vaccine agents and effective new diagnostic tests will be developed during the life of the project.

Implementing Office: Office of Health (HRDC/H), ext. 3269.

CHILD SURVIVAL (263-0203)

Purpose: To promote child survival and safe motherhood and to reduce morbidity and mortality in infants and children under five years old, and women of child bearing age.

Description: The Child Survival Project focuses on three interventions: immunization for seven vaccine preventable diseases including a vaccine against hepatitis B; early diagnosis and treatment of acute respiratory infections (ARI); and child spacing and safe motherhood. The Expanded Program for Immunization (EPI) component is currently focused on maintaining coverage above 80% for six childhood vaccinations, eradicating polio and eliminating tetanus by 1994. The ARI program has adopted the World Health Organization (WHO) case management protocol and is currently training staff in the correct diagnosis and treatment of ARI. Activities of the Child Spacing component include the training of traditional birth attendants in support of a Maternal and Child Health and neonatal program, and the training of nurses and doctors in counselling families in child spacing and referral for family planning services. The use of mass media to promote services and to educate families is a key activity in the project.

Clark-Atlanta University is the major US contractor for the project. *John Hopkins University* also provides additional technical assistance.

<u>Current Status:</u>	Active
<u>Duration:</u>	FY 1985 - FY 1995
<u>Approved Total Funding:</u>	\$67.94 million
<u>Funding to Date:</u>	\$49 million

Accomplishments:

- 87% of children under one year of age immunized in 1991 compared to 54% in 1984.
- Hepatitis B immunizations started in July 1992.
- Polio eradication and tetanus elimination are on track for 1994.
- The national cold chain with bulk/clinic/mobile refrigerator storage capacity of vaccines has been developed at over 3600 sites.
- A WHO protocol based treatment program will soon monitor ARI prescription practices.
- An applied research program provides answers to various problems areas, e.g. appropriate treatment, and current prescribing practices by ARI physicians.
- Training of physicians and dayas (midwives) in safe motherhood and child spacing is increasing the number of pregnant women seeking prenatal care and tetanus toxoid vaccinations.

Implementing Office: Office of Health (HRDC/H), extension 3269.

STRENGTHENING RURAL HEALTH DELIVERY (263-0015)

Purpose: To assist the Ministry of Health in improving the health status of the Egyptian people and reducing the population growth rate through the development of replicable health and family planning services in rural areas.

Description: This project developed and tested health and family planning delivery services expected to have a significant impact on the long-term improvement of health in the rural Egyptian population. Examples of services developed include an improved health/family planning supervisory system, an outreach program for health services in villages, tetanus immunizations, and an Oral Rehydration Therapy (ORT) program for the reduction of the high rate of diarrheal deaths in the infant population.

The primary Egyptian implementing agent was the Ministry of Health. The prime U.S. Contractor was *Westinghouse Health Systems*.

<u>Current Status:</u>	Completed
<u>Duration:</u>	FY 76 - FY 87
<u>Total Project Funding:</u>	\$13.3 Million

Accomplishments:

- The project trained over 3,500 Egyptian physicians, nurses, sanitarians and laboratory assistants in Egypt and about 75 Egyptians in the United States and other countries.
- The successful test results of the project-developed ORT program led to a separate \$26 million project (Control of Diarrheal Diseases, 263-1037) aimed at decreasing infant mortality by 40 percent nationwide.
- A program of all the proven interventions developed under the project was tested in the four governorates of Assuit, Fayoum, Dakahliya, and Beheira.
- The project ended with the receipt and distribution of equipment packages to rural health units throughout Egypt in March 1987.

Implementing Office: Office of Health (HRDC/H), extension 3269.

CONTROL OF DIARRHEAL DISEASES (263-0137)

Purpose: To reduce infant and child mortality due primarily to dehydration caused by diarrhea by making rehydration services widely available through a national program.

Description: The project trained public and private sector health personnel in rehydration therapy, established rehydration centers in all governorate health centers and hospitals, produced and distributed rehydration materials and promoted the use of rehydration through a mass media campaign.

The contractor was the *John Snow Public Health Group, Inc.* The Egyptian implementing agent was the Ministry of Health (MOH).

<u>Current Status:</u>	Completed
Duration:	FY 81 - FY 91
Approved Total Funding:	\$36 Million
Funding to Date:	\$36 Million

Accomplishments:

With specific reference to its objectives, the project accomplished the following:

- Diarrheal disease mortality in children five years and below was reduced by approximately 66%, more than the project target of 25%.
- Approximately 99% of Egyptian mothers have become knowledgeable about ORS since 1985. 90% of them can mix an ORS solution correctly, more than the project target of 75%.
- At least 66% of diarrheal disease cases regarded as serious by mothers are treated with ORS, more than the project target of 50%.
- Diarrheal disease specific mortality dropped from 5.9/1000 in 1982 to 1.6/1000 in 1989. The impact on over-all infant mortality was a drop by 44.1%.
- Based on an estimate of 72% of diarrheal disease mortality reduction between 1982 and 1989, the lives of over 300,000 children were saved by project interventions.
- ORS is now readily available and widely used in Egypt.
- USAID and the MOH worked assiduously to ensure institutionalization of project gains within the MOH regular budget, through administrative measures ensuring a focal point for the coordination of diarrheal disease activities within the MOH and through a continuation of training and mass media activities after the project ended.

Implementing Office: Office of Health (HRDC/H), extension 3269.

INTEGRATED SOCIAL WORK CENTERS (263-0020)

Purpose: To help the Ministry of Social Affairs (MSA) expand and improve social services.

Description: This project was designed to find ways in which social services, such as child care centers and vocational training, could be made more responsive to community needs. A center for the training of social workers in the town of Tanta in the Delta region of Egypt was established. The center focuses on producing trained social workers who can identify community needs and recommend and implement appropriate responses to these needs.

The U.S. contractor was the *University of North Carolina (UNC)*. The primary Egyptian implementing agent was the Ministry of Social Affairs.

<u>Current Status:</u>	Completed
Duration:	FY 77 - FY 83
Total Project Funding:	\$2.4 Million

Accomplishments:

- A model demonstration training center in Tanta was established and is fully operational.
- A full range of training programs was designed and implemented.
- A *UNC* team provided technical guidance to introduce and establish a wide range of training programs for the Tanta Center. The Ministry of Social Affairs is now conducting in-service courses begun as a result of the project.
- Short and long-term training in social work and community development was carried out in the U.S. at *UNC* for MSA staff members.

Implementing Office: Office of Health (HRDC/H), ext. 3662.

URBAN HEALTH DELIVERY SYSTEMS (263-0065)

Purpose: To improve delivery and utilization of urban primary health care services, particularly maternal and child health (MCH), in the cities of Cairo and Alexandria.

Description: The project provided training, technical assistance, community outreach programs, support for the delivery of health services in the most needy neighborhoods, physical improvements or construction of health facilities, and cooperation between the health services of the Ministry of Health, Cairo University and the Health Insurance Organization.

U.S. contractors included *Westinghouse Health Systems* (technical assistance), *DMJM/KIDDE* (architecture and engineering and construction supervision), *Price Waterhouse* (management information systems), *Emrey Associates* (technical assistance) *ARMCO* (construction), *ENCORP* (construction), and *AEGIS* (procurement services).

The Egyptian implementing agents were the Ministry of Health (MOH), Cairo University (CU) and the Health Insurance Organization (HIO).

<u>Current Status:</u>	Completed
Duration:	FY 79 - FY 89
Total Project Funding:	\$44.1 Million

Accomplishments:

- Health service improvements in the project's new clinics included improved record keeping, bacterial sterilization, drug packaging, nutrition education, oral rehydration therapy, community outreach, organization and management, and family planning.
- Twelve documentation manuals and four training video-tapes were prepared on improving specific services. These increased the autonomy of local clinics.
- A computerized management information system was developed and now registers up to three million patients and maintains drug use and inventory regulation for the Health Insurance Organization in Alexandria.
- Over 3,000 physicians, nurses, midwives and other health workers in the project areas received training in Egypt.
- The renovation and commissioning of 18 clinics in Cairo and 11 in Alexandria was completed. Construction of eight new clinics is complete. Construction work on the Center for Social and Preventive Medicine in Cairo is complete.

Implementing Office: Office of Health (HRDC/H), extension 3269.

EDUCATION SECTOR PROFILE

Egypt's educational system does not contribute as much as it should to rapid economic growth. Nor does it allow the majority of Egyptians to attain their full human potential. Some of the problems Egypt faces in this sector are: inadequate physical facilities; increasing enrollments without a commensurate increase in resources devoted to the educational system; inadequate access to schools, especially in rural areas; limited equipment and books available to students at all levels; and poor quality of instruction. This contributes to a high primary school dropout rate and poor learning at all levels. When USAID began project assistance in this sector, first grade enrollment was below 83 percent.

In his first speech after re-election in October 1987, President Mubarak identified educational reform as one of the four areas requiring major national efforts (the other three being health, housing and tourism). The Ministry of Education has embarked on a major effort to formulate a strategy for educational reform. The strategy is designed to provide sufficient funds for school buildings to reduce crowding, to enhance technical education at secondary and higher educational levels and to upgrade and train teachers.

USAID has provided \$375 million of education and training since 1975. In a major effort to increase primary school enrollments, USAID is building 1,800 schools in rural areas currently underserved (e.g. the nearest school is at least five kilometers away). Over 1,000 schools have been completed and new schools are being built at a rate of one per day. The impact on primary school enrollments is striking. In the three years since the first schools were completed, boys' first grade enrollment in those catchment areas increased 15 percent. Girls' first grade enrollment increased much more -- 29 percent. Dropout rates in grades two through six decreased at a rate of six percent for boys and 17 percent for girls. Dropout rates are reduced markedly as schools are built nearer to where children live.

Since 1975, USAID has financed over 8,500 participants in academic and technical training in the U.S. USAID's contribution to university education and research has been through the linking of U.S. and Egyptian universities for developmental research activities. The projects in this sector, and in the Science and Technology and Agriculture sectors, have helped develop relationships between U.S. and Egyptian scientists that strengthen the capabilities of Egyptian research institutions to engage in applied research.

The standard Egyptian medical school curriculum provides little exposure to patients or patient care, and none at all to primary health care services. In a significant break with tradition, the Suez Canal Area Medical Education and Health Services project has developed a six-year course of studies in the Suez Canal University Faculty of Medicine that provides greater student exposure to local health needs. First year students are placed in rural and urban health facilities. Patient health problems serve as basic learning units. As the students progress, they receive greater patient exposure and, ultimately, responsibility for diagnosing and recommending patient treatment. Out of 50 students who entered in the first year, 44 students or close to 90 percent graduated in 1988. Forty-five percent of the students are female.

DEVELOPMENT TRAINING (263-0125)

Purpose: To provide cost effective education and training opportunities for key individuals in development sectors. The project also helps the Government of Egypt (GOE) identify training needs, select cost-effective training opportunities and optimize the use of individuals trained.

Description: The project has six components:

- **Peace Fellowship Program:** Some 1,250 Egyptians will receive U.S. training in areas critical to Egypt's economic growth and development.
- **Non-Project Training:** Seeks to update technical and managerial skills in public and private sectors through short-term training in the U.S.
- **Integrated English Language:** Upgrades English Language instruction through support to pre-service and in-service teacher training, and English training for special purposes through a cooperative agreement with the Fulbright Commission.
- **English Language Testing and Training:** Provides uniform testing and training for AID-funded participants, through a direct AID contract.
- **Egyptian Labor Development:** Through a cooperative agreement with the African-American Labor Center, supports worker education, improved trade union practices, leadership development and targeted skills training.

The primary Egyptian implementing agencies are the Ministry of Education (MOE), the Ministry of Higher Education (MOHE) and the Ministry of Cabinet Affairs and Administrative Development (MCAAD).

<u>Current Status:</u>	Active
Duration:	FY 85 - FY 95
Approved Total Funding:	\$109.0 Million
Funding to Date:	\$ 60.0 Million

Accomplishments:

- 1- Over 900 Peace Fellows have begun training in the U.S. Another 562 Egyptians from public and private sectors have attended short-term programs in the U.S. under the Non-Project Training component.
- 2- Since start up of the English language testing/training contract in September 1989, a total of participants have been tested for English language proficiency and 2,319 participants have undergone English language training.
- 3- An assessment of the Egyptian construction industry is presently being organized under the auspices of the African-American Labor Center and the Hassan-Fathy Institute to provide necessary information for the establishment of a labor-management project for vocational

Implementing Office: Office of Education and Training (HRDC/ET, extension 3262/3).

BASIC EDUCATION (263-0139)

Purpose: To expand the capacity and increase the relevance, efficiency and effectiveness of basic education in Egypt.

Description: Main project activities are: (1) constructing primary and preparatory schools; (2) providing technical assistance to the Center for Curriculum and Instructional Materials Development; (3) providing technical assistance to the Ministry of Education in educational planning and management; (4) teacher training; (5) printing curricula; and (6) special education. Technical assistance is provided by the Education Development Center, Inc., and the Research Triangle Institute. The Egyptian implementing agencies are the National Investment Bank (NIB) and the Ministry of Education (MOE).

<u>Current Status:</u>	Active
Duration:	FY 81 - FY 92
Approved Total Funding:	\$190 million
Funding to Date:	\$190 million

Implementation Progress:

- Over 1,800 primary and preparatory schools have been constructed to date. Instructional materials and equipment, including maps, globes, overhead projectors, science equipment and carpentry tools totaling \$40 million have been procured and distributed among 15,000 primary and preparatory schools throughout the country.
- Through the planning, Information and Research Directorates, U.S. technical advisors provide assistance to the MOE in strengthening their educational planning and management capacity. To this end, U.S. technical assistance has assisted the MOE in developing an Education Management Information System including substantive training in data collection and analysis. One activity has been the development of a new collection and assessment system for the annual education census.
- A total of 14,000 teachers and inspectors have now been trained in the use and maintenance of USAID-donated school equipment.
- The first products of the Curriculum Center, *Integrated Environmental Studies* and Arabic and math texts (including teachers' guides) for grades 1-3, are in the schools. Additional textbooks and teachers' guides for all primary textbooks are in various stages of completion.
- Cooperative Agreement in special education signed with Gallaudet University in September 1991. To date approximately 400 teachers, administrators and specialists have received training in the disability areas of blindness, deafness and mental retardation.

Implementing Office: Office of Education and Training (HRDC/ET), ext. 3262.

**PUBLIC FINANCE ADMINISTRATION
(263-0209)**

Purpose: To improve the efficiency of tax administration and equity in the incidence, assessment and collection of taxes.

Description: The achievements in the Tax Administration Project (TAP) encouraged the Ministry of Finance (MOF) to expand its activities to include administrative policy and operational programs in the four major functional tax areas: (1) income; (2) customs; (3) sales; and (4) special studies such as those on estate and property tax. The Public Finance Administration Project will improve administration and taxation policies, as well as operational methods and procedures. The information pooled from research and operational activities in the three major tax revenue departments will lead to improvements in overall Ministry of Finance fiscal and administrative policy and procedures. The beneficiaries will be the individual taxpayers and private sector commercial operations.

The American consultants are the U.S. Customs Services (PASA) and *Peat Marwick*. The Egyptian implementing agent is the Ministry of Finance (MOF).

Current Status:	Active
Duration:	FY 88 - FY 96
Approved Total Funding:	\$16.2 Million
Funding to Date:	\$16.2 Million

Accomplishments:

- Phase I of the project is due to end in April 1992. The mid-term evaluation was completed in February 1992. Its recommendations were to continue to Phase II. The Policy reform agenda has been completed and discussed with the MOF technical committees. Further discussions are going to be held with the Minister of Finance soon.
- With respect to the Customs component, the current PASA will not be extended after the completion date of May 31, 1992. Although the mid project evaluation recommended a continuation of the activity through Phase II, the current project funding could not support the technical assistance work for the coming 36 months.

A concept paper has been prepared by EAS requesting increased LOP funding to support 1 all components, including an expanded scope of local public finance.

Implementing Office: Office of Economic Analysis and Strategy (DIR/EAS) extension 3735/3220.

ENERGY MANPOWER DEVELOPMENT (263-0140.04)

Purpose: To improve the technical and managerial capabilities of the petroleum and electricity sectors through manpower planning, training, institution building and pilot demonstrations.

Description: The project consists of two interrelated components:

- Capacity-building through technical and management training programs; training of instructors; and improving training facilities.
- The introduction of manpower planning and development systems into the Egyptian General Petroleum Corporation (EGPC), the Egyptian Electricity Authority (EEA) and the Electrical Distribution Authority (EDA).

The primary Egyptian implementing agents are EGPC, EEA and EDA.

<u>Status:</u>	Active
<u>Duration:</u>	FY 88 - FY 94
<u>Approved Total Funding:</u>	\$8.6 Million
<u>Funding to Date:</u>	\$8.6 Million

Accomplishments:

- Technical assistance contractors, International Human Resources Development Corporation (IHRDC) and Institute of International Education (IIE), have worked with EGPC, EEA and EDA, to train.
- The project has trained 40 Egyptians in the U.S., including 26 trainers who are now training fellow Egyptians in Cairo.

Implementing Office: Office of Education and Training (HRDC/ET), ext. 3262

UNIVERSITY LINKAGES PROJECT II (263-0211)

PURPOSE: To improve and increase the utilization of Egyptian universities in the solution to key developmental and technological problems.

PROJECT DESCRIPTION: The project is a grant mechanism to produce applied research by Egyptian and US universities to solve development problems. It will address development problems through applied research by establishing three-party linkages between the Egyptian universities and end-users on the one-hand (external linkages); and between the Egyptian universities and the assisting U.S. institutions on the other (internal linkages) so that the latter will support the former.

The project strengthens and institutionalizes the process of utilizing university researchers by encouraging long term linkages between Egyptian and U.S. universities. It will also develop and sustain a strong relationship between Egyptian universities and end-users by initiating and catalyzing a demand-driven research process; and by actively involving these end-users in each stage of the applied research process. The project places a new emphasis on the solution of problems affecting private sector end-users.

<u>Current Status:</u>	Active
Duration:	FY 92-FY 97
Approved Total Funding:	\$20 Million
Funding to Date:	\$5 Million

Accomplishments: The project will start proposal review and grant award this summer.

Implementing Office: Office of Education and Training, (HRDC/ED, ext. 3262)

**TECHNOLOGY TRANSFER AND MANPOWER DEVELOPMENT
I & II
(263-0002 and 263-0011)**

Purpose: To update and improve the skills of Egyptian scientists and technicians to solve technical/managerial problems in both the public and private sectors.

Description: These completed projects provided grants to finance:

- Long and short-term visits to the U.S. for Egyptian technical experts and administrators.
- Technical assistance from the U.S. to support selected technicians/scientists.
- Purchase of critically needed equipment to demonstrate updated technological processes.

The projects supported technicians and scientists engaged in problem solving activities in: agricultural production; hospital administration; health services delivery systems; nutrition survey techniques; public administration; foreign investment promotion and negotiation procedures; civil aviation; navigation; and geological and mineral survey techniques. The primary Egyptian implementing agent was the Ministry of International Cooperation.

	<u>Project 263-0002</u>	<u>Project 263-0011</u>
<u>Current Status:</u>	Completed	Completed
<u>Duration:</u>	FY 75 - FY 78	FY 75 - FY 79
<u>Total Project Funding:</u>	\$0.9 Million	\$1.9 Million

Accomplishments:

- Projects 263-0002 and 263-0011 financed the training of 401 participants in a variety of disciplines in the United States and other countries.
- These projects were used for a wide variety of project support and contingency activities - notably technical assistance, conferences and miscellaneous service contracts which could not be funded under USAID's other, more limited, focus developmental projects.

Implementing Office: Office of Education and Training (HRDC/ET), ext. 3262.

**TECHNOLOGY TRANSFER AND MANPOWER
DEVELOPMENT III
(263-0026)**

Purpose: To update and improve the skills of Egyptian scientists and technicians to solve technical/managerial problems in both the public and private sectors.

Description: The project financed: (1) long and short-term visits to the U.S. for Egyptian technical experts and administrators; (2) technical assistance from the U.S. to support selected technicians/scientists; and (3) purchase of critically needed equipment to demonstrate updated technological processes.

Support was given to technicians and scientists engaged in problem solving activities in the following areas: agricultural production; hospital administration; health services delivery systems; nutrition survey techniques; public administration; foreign investment promotion and negotiation procedures; civil aviation; navigation; and geological and mineral survey techniques.

U.S. contractors included *AMIDEAST*, the *American University of Cairo*, the *Fulbright Commission*, the *African American Labor Training Center* (for training and technical assistance services in labor affairs), the *Bureau of Reclamation of the U.S. Department of the Interior*, the *U.S. Department of Health and Human Services*, the *United States Geological Survey*, the *Federal Reserve System* and the *Internal Revenue Service* - for training activities and technical assistance pertinent to their areas of expertise. The Egyptian implementing agent was the Ministry of International Cooperation (MIC).

<u>Current Status:</u>	Completed
Duration:	FY 77 - FY 88
Total Project Funding:	\$34.9 Million

Accomplishments:

- This project and predecessor general training projects gave some 2,300 senior and mid-level Egyptians the opportunity to visit and work with American counterparts in identifying and/or solving technical and managerial problems constraining Egyptian private and public sector development. The exchanges funded under this project have fostered linkages between American and Egyptian professionals and institutions.
- Training and technology transfers in scientific and managerial areas (through conferences, seminars and consultants) were provided for about 85 Egyptian organizations.
- Until 1981, Project 263-0026 was used for a wide variety of project support and contingency activities that could not be funded under USAID's other, more focused projects. Beginning in 1982, Project 263-0026 was narrowed to primarily fund training.

Implementing Office: Office of Education and Training (HRDC/ET), ext. 3262.

PEACE FELLOWSHIPS PROGRAM (263-0110)

Purpose: To strengthen and expand the availability of trained manpower to assist Egyptian development efforts.

Descriptions: The project provided scholarships for 1,900 potential Egyptian leaders to study in U.S. universities one or two years in disciplines critical to the country's economic growth. Project activities are continuing under the Development Training project (263-0125). The grant is administered by the Ministry of Higher Education (MOHE), whose Missions Department handles participant training for the Government of Egypt (GOE). The Ministry selects Peace Fellow candidates and directs the program through a Project Management Committee. A U.S. private voluntary organization, *AMIDEAST*, under contract with the Missions Department, placed Peace Fellowship candidates in U.S. institutions and provided counseling and financial management. *AMIDEAST* also provided technical assistance to the Missions Department to improve its operations.

<u>Current Status:</u>	Completed
Duration:	FY 80 - FY 90
Approved Total Funding:	\$60.0 Million
Funding to Date	\$60.0 Million

Accomplishments:

- Over 2,000 Peace Fellows (19 percent women) have completed training in the U.S. About 70 percent of the students pursued non-degree studies and of the remaining 30 percent, 18 percent pursued doctorates and 12 percent master's degrees.
- Sponsorship of Peace Fellows came from a mix of sources: universities (52%); ministries (20%); public companies (12%); private firms (10%); and research institutions (6%). Fields of study include; engineering and applied science (32%); health (31%); agriculture (11%); education and social science (10%); business administration (9%); architecture (4%); and economics (3%).
- An evaluation conducted in 1983, ongoing USAID observation/monitoring of the program and dialogue with Egyptian officials confirmed that the GOE of Egypt is pleased with the performance of the returned Peace Fellows and that skills acquired under the program can make a significant contribution to Egypt's development.
- The final funding (\$6 million in FY 1985) was part of a project amendment whereby project management responsibilities (except student placement) were transferred from the U.S. contractor *AMIDEAST* to the Ministry of Higher Education.

Implementing Office: Office of Education and Training (HRDC/ET), extension 3262.

SUEZ AREA MEDICAL EDUCATION AND HEALTH SERVICES DEVELOPMENT (263-0136)

Purpose: To develop an innovative problem-solving process of medical education for community physicians. Well qualified community physicians, competent in the management and delivery of basic community health services, can then provide effective primary and preventive health care.

Description: This completed project established a new faculty of community based medication care at Suez Canal University. The project trained community physicians who are qualified to provide effective primary and preventive health care. The project also assisted in the integration of resources of the Suez Canal University Faculty of Medicine and Ministry of Health within the five governorates bordering Suez Canal to develop a more effective delivery of high-quality health services.

Current Status:	Completed
Duration:	FY 80 - FY 91
Total Project Funding:	\$ 15.9 million

Accomplishments:

- The Suez Canal University/Faculty of Medicine (SCU/FOM) graduated its third class of 61 doctors in 1989, making a total of 170 physicians trained. Approximately 38 percent of the physicians (65) are female. The majority of physicians continue to work in General Practice.
- A post-graduate medical program in general practice was established. This program provided much needed community/health training to MOH doctors. A total of 61 doctors, 13 of them females, were trained as of the 1989 academic year. As a result of the SCUA/FOM program in general practice, general practice is now recognized as an area of specialty by the Egyptian Medical Association.
- The project established II revenue-generating model group practices. The importance of recovering a portion of the cost of operating health facilities in a group practice setting was amply demonstrated by the Project. This experience in cost recovery has been a very useful model to USAID and to the MOH as both embark on the new Cost Recovery for Health Project.
- The project renovated/constructed 24 health facilities. These facilities provide ideal student training settings for reinforcing the school's community-oriented primary health care philosophy.
- As a result of this program development, the SCU School of Medicine has been adopted by WHO as a collaborating institution in its worldwide network of community-oriented educational institutions for health sciences schools.

Implementing office: Office of Health (HRDC/H), extension 3269.

VOCATIONAL TRAINING FOR PRODUCTIVITY (263-0090.02)

Purpose: To strengthen the capacity of the Ministry of Industry (MOI) to plan and implement vocational training programs to raise productivity.

Description: This project focused on training centers in the Alexandria and Middle Delta areas and the Instructor Training Institute in Amereya, Cairo. Training services were provided to individual companies to increase the productivity of their labor forces. Assistance to the MOI's vocational training arm, the Productivity and Vocational Training Department (PVTD), strengthened its ability to manage decentralized, user oriented, innovative vocational training systems. This assistance: (1) provided instructor training and upgrading; (2) developed skill standards and competency tests; (3) provided selected participant training in the U.S.; (4) established a management information system and an instructor training institute; and (5) increased employment opportunities for women in skilled trades. The contractor was *RCA Service Company*. The Egyptian implementing agent was the Productivity Vocational Training Department of the Ministry of Industry.

<u>Current Status:</u>	Completed
<u>Duration:</u>	FY 81 - FY 88
<u>Total Project Funding:</u>	\$16.3 Million

Accomplishments:

- All of the 24 curricula are complete and the field testing for 15 of the 24 had been finalized at project completion.
- Various in-service activities were offered to improve performance of PVTD staff members and instructors, including job related training, development of instructional materials, pedagogical techniques and occupational skills.
- Seventy-eight participants were trained abroad.
- Substantial progress was made in encouraging women to enroll in non-traditional occupational programs and in their subsequent placement in industrial jobs.
- Software for student records was developed and the computer hardware was purchased. Substantial progress was made in the development of a management information system and in formulating trade standards and competency exams.
- Construction of an instructor training institute and instructional materials production center was completed.

Implementing Office: Office of Education and Training (HRDC/ET), extension 3262.

VEHICLE MAINTENANCE TRAINING (263-0114)

Purpose: To establish a heavy vehicle maintenance training center to serve the training needs of nine large Egyptian public sector bus and truck transport companies.

Description: This completed project provided technical assistance, participant training and equipment and supplies to establish a vehicle maintenance training center in the Mataria District of Cairo. This project has upgraded the skills of the about 5,000 vehicle maintenance workers employed by the nine target public sector bus and transport companies. Implementation of the project was carried out under a contract between the Egyptian General Syndicate for Land Transport (GSLT), the primary Egyptian implementing agent and a U.S. service company, *RCA*.

<u>Current Status:</u>	Completed
Duration:	FY 80 - FY 85
Total Project Funding:	\$4.5 Million

Accomplishments:

- The GSLT Training Center became fully operational in August 1984 and now provides training in over 12 key vehicle maintenance occupation/trade areas. About 540 key maintenance workers are annually upgraded to the skilled mechanic level.
- Fifteen instructors attended U.S. vehicle maintenance training programs and seven others trained in-country.
- Twelve engineers received training at the new GSLT Training Center.
- A total of \$1.2 million in equipment for the training center has been installed and is fully operational.

Implementing Office: Office of Education and Training (HRDC/ET), extension 3262.

TAX ADMINISTRATION (263-0115)

Purpose: To modernize the administration of the Government of Egypt's (GOE) personal and business income tax systems to achieve improved tax equity and additional tax revenues.

Description: The project improved the GOE's capacity to administer the tax collection program by establishing a Tax Training Institute (TTI), developing an independent automatic data processing (ADP) division and reorganizing the Tax Department in the Ministry of Finance. Project management was by the U.S. Internal Revenue Service (IRS) and consulting services performed by Syracuse University and the U.S. Customs Service. The Egyptian implementing agent was the Ministry of Finance (MOF).

<u>Current Status:</u>	Completed
Duration:	FY 80 - FY 88
Total Project Funding:	\$3.4 Million

Accomplishments:

- Advisors for the IRS acted in a technical advisory capacity with the Ministry of Finance to improve the tax collection system in the country.
- The IRS project activity made the most progress in training. When the TTI was well established and functioning, including the off-site training center in Ismailia, the IRS concentrated its remaining training assistance on executive and mid-level management courses.
- A pilot examination program was begun to prioritize and generally make more efficient the auditing of tax returns.
- Automatic Data Processing (ADP) equipment was installed. Long-range planning for ADP was undertaken by the IRS ADP advisor. The two computer sites in Cairo and Ismailia were ready at project completion.
- New procedures in several operational areas of tax administration were implemented nationwide, including improved processing and distribution of forms and reports generated by ADP.
- A review of taxation in Egypt and areas of possible future USAID program activities was completed by the IRS, Syracuse University and the U.S. Customs Service. The information produced by the review was used in a new project expanding into other taxation areas such as customs, consumption and real estate.

Implementing Office: Office of Education and Training (HRDC/ET), ext. 3262.

DEVELOPMENT PLANNING STUDIES (263-0061)

Purpose: To create a permanent institutional framework through which Egyptian applied research and training capabilities can strengthen the capacity of Egyptian government ministries to carry out development programs and project planning activities.

Description: The project was implemented by Cairo University (CU) through a contract with the Massachusetts *Institute of Technology (MIT)*. MIT assisted Cairo University in establishing a semi-autonomous applied research training institute, the Development Research and Technological Planning Center (DRTPC). One role of this institute is to improve the willingness and capacity of Cairo University and participating ministries to work together in the identification and solution of key Egyptian development problems. Efforts in the final phase of the project were dedicated to enhancing the working relationships between Cairo University and GOE ministries through faculty and staff exchanges, joint research efforts, provision of computer services and training. The DRTPC was rapidly developing the capacity and attracting sufficient non-USAID funding to continue such activities on a sound basis beyond the project's completion. The Egyptian implementing agents were the DRTPC and CU.

Current Status:	Completed
Duration:	FY 1978 - FY 1988
Total Project Funding:	\$22.8 Million

Accomplishments:

- Two hundred staff members were trained at MIT, and 500 ministry personnel attended seminars, workshops and short-term courses at the DRTPC in such areas as transport, investment policy, water resource development and energy.
- Over 20 joint CU/MIT research projects were completed. Over 25 totally Egyptian funded research projects were complete, with many more ongoing. Several research projects resulted in appreciable savings or helped government agencies improve their performance in areas such as; energy policy, improved performance of the prefabrication industry and freight service planning and marketing.
- Fourteen GOE ministries, four governorate, and 11 public sector companies had signed research and/or training contracts with DRTPC at project completion.
- At the close of the project, the DRTPC was becoming financially self-sufficient as it was able to charge more clients fees that cover full costs, including its administrative overhead.

Implementing Office: Office of Education and Training (HRDC/ET), ext. 3262.

TECHNICAL COOPERATION AND FEASIBILITY STUDIES (263-0102) and the A.I.D ACTIVITY TRUST ACCOUNT (FT 800)

Purpose: To assist the Egyptian government in identifying, developing, testing and implementing priority activities and in making appropriate investment decisions to meet long-term development needs.

Description: Project 263-0102 finances the dollar costs of feasibility and technical studies, general and sector surveys, preproject and project design activities, and evaluations and sector assessments. The project also finances technical assistance activities and selected Private Voluntary Organization (PVO) programs that address areas of concern not covered by other projects. The local currency costs of activities funded under project 263-0102 are financed by Egyptian Pounds in the USAID Activity Trust Account. This money is generated through sales of commodities provided by the Commodity Import Program. The primary implementing agent for this project is the Ministry of International Cooperation (MIC). Other technical ministries and agencies implement specific activities that have been approved by MIC.

<u>Current Status:</u>	Active
Duration:	FY 83 - FY 94
Approved Total Funding:	\$50.0 Million
Funding to Date:	\$45.0 Million

Accomplishments:

Of the 150 activities that have been financed over 100 activities are already completed. Activities include:

- An engineering study to upgrade north Cairo's water distribution system.
- A feasibility study for a 1,200 megawatt Power Plant at El Kuraimat.
- Project design for export promotion, Employee-Stock Ownership Plans (ESOPs), applied university research and cost recovery programs for health.
- Technical assistance to establish standard policies and procedures for privatization through the Partnership In Development activity.
- Technical assistance to establish an automated information center at MIC.
- Technical assistance to assess the seismic stability of the Aswan High Dam.
- A Cooperative Health Program of about 30 bio-medical research and development activities. Approximately fifteen PVO activities have been funded under Project 0102 and the FY-800 Account, including Fisheries Development at the Aswan High Dam, and South Sinai (CARE), institutionalization of the Assuit Nursing Institute (HOPE), and improving the industrial, technical & managerial capabilities of Egyptian businesses - IESC.

Implementing Office: Program Office (PDS/P), extension 3216.

MINERAL, PETROLEUM AND GROUNDWATER ASSESSMENT (263-0105)

Purpose: To improve the availability and usefulness of data gathered by the Government of Egypt (GOE) on existing and potential mineral, petroleum and groundwater resources and to encourage greater private sector participation in their development.

Description: The program provided assistance to five GOE institutions to: (1) improve the organization of current data on potential mineral, petroleum and groundwater resources; (2) compile reports on newly surveyed areas; and (3) improve the GOE's capacity to acquire, organize, analyze, retrieve and disseminate data on potentially commercial mineral and petroleum resources.

The Egyptian implementing agents are: the Egyptian General Petroleum Corporation (EGPC), the Egyptian Geological Survey and Mining Authority (EGSMA), the Desert Research Institute (DRI) and the Remote Sensing Center (RSC).

<u>Current Status:</u>	Completed
Duration:	FY 80 - FY 90
Total Project Funding:	\$33.7 Million

Accomplishments:

- All five GOE agencies expanded data collection and analysis capability, updated libraries, and established computerized information systems with assistance from *Bendix Field Engineering Corp.*, *Geosource*, *Integrated Technologies*, *Bechtel*, *Scientific Software Intercomp* and *Environmental Research Institute of Michigan*.
- RSC produced the first LANDSAT Atlas of Egypt.
- EGPC sold aeromagnetic/radiometric data collected by Western Geophysical to six oil companies. The data contributed to GOE concession agreements with ESSO, AMOCO, and MARATHON requiring minimum exploration investment of \$100 million. EGSMA signed three mineral concession agreements requiring a minimum of \$20 million in exploration investment.
- GPC and Improved Petroleum Recovery Inc, conducted an enhanced petroleum recovery feasibility study and gas injection pilot test at the North Bakr oil field along the Gulf of Suez.
- DRI completed a groundwater survey in the Eastern Desert, discovered three new aquifers along the Red Sea and is selling water from one to MARATHON for its oil exploration concession.

Implementing Office: Office of Science and Technology (HRDC/ST), ext. 3277.

APPLIED SCIENCE AND TECHNOLOGY RESEARCH (263-0016)

Purpose: To improve the capability of the Egyptian Science and Technology (S&T) community to develop and manage research programs for solving priority development problems.

Description: This program saw improvements in the capability of the Egyptian S&T community to develop and manage research programs in sectors of the economy that address development issues. These programs included three research demonstration projects, seven research and development (R&D) projects and three projects to strengthen the S&T community in the areas of: (1) access to information; (2) availability of maintenance and repair expertise for research equipment; and (3) development of standards and quality control regulations. The project was supervised by the Joint Consultative Committee (JCC) composed of five U.S. and five Egyptian scientists.

U.S. contractors included the *U.S. National Academy of Sciences (NAS)*, the *U.S. National Institutes of Health (NIH)*, the *University of Wisconsin*, *Georgia Institute of Technology* and the *U.S. National Bureau of Standards*. The primary Egyptian implementing agent was the Egyptian Academy of Scientific Research and Technology (ASRT).

<u>Current Status:</u>	Completed
Duration:	FY 77 - FY 88
Total Project Funding:	\$22.5 Million

Accomplishments:

- The *NAS* assisted in a number of S&T policy studies, which have culminated in a draft technology policy for Egypt by ASRT. *NAS* also provided (1) consulting services; and (2) on-the-job training in R&D management and research and development of demonstration projects.
- The *NIH* and the *University of Wisconsin* established an instrumentation technology unit in the Scientific Instrumentation Center at the National Research Center in Cairo. Maintenance and repair centers were also established at eight universities in Egypt.
- The *Georgia Institute of Technology* established an S&T information center at each of five Egyptian ministries (Petroleum, Health, Agriculture, Scientific Research and Industry).
- The *U.S. National Bureau of Standards* introduced new methods of quality control and standardization at the Egyptian Organization of Standardization, the Egyptian National Institute of Standards, and the Weights and Assays Authority.

Implementing Office: Office of Environment, (PDS/ENV), ext. 3136.

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IV. ANNEX

LIST OF PROJECTS IN NUMERICAL ORDER

A = Active
C = Completed

Note: (1) The name and/or number in parenthesis after some of the titles refers to a prior name and/or project number.

(2) The full office name and office extension are given on the project description page.

<i>No.</i>	<i>Title</i>	<i>Office</i>	<i>Status</i>	<i>P.</i>
0001	Electric Power Distribution	DR/P&T	C	30
0002	Technology Transfer and Manpower Development	HRDC/ET	C	122
0003	Technical and Feasibility Studies I	PDS/P	C	130
0004	Suez Canal Clearance Extension	DR/UAD	C	47
0006	Population/Family Planning Research	HRDC/P	C	106
0007	Road Building Equipment - Suez Canal Area	DR/UAD	C	48
0008	Gas Turbine Generators (Talkha-Helwan) (K-032)	DR/UAD	C	31
0009	Ismailia Thermal Power Plant	DR/UAD	C	32
0010	Mehalla Textile Plant Rehabilitation (K-033)	TI/FI	C	86
0011	Technology Transfer and Manpower Development II	HRDC/ET	C	122
0012	Suez Cement Plant	TI/FI	C	87
0013	Technical and Feasibility Studies II	PDS/P	C	130
0014	Alexandria Port Authority (K-031)	DR/UAD	C	49
0015	Strengthening Rural Health Delivery	HRDC/H	C	112
0016	Applied Science and Technology Research	PDS/ENV	C	132
0017	Water Use and Management	AGR/ILD	C	62
0018	Development Industrial Bank I (K-035)	TI/FI	C	88
0019	PVC Pipe Drainage (K-034)	DR/UAD	C	63
0020	Integrated Social Work Centers	PDS/P	C	114

<i>No.</i>	<i>Title</i>	<i>Office</i>	<i>Status</i>	<i>P.</i>
0021	Development Decentralization I (see 0161.1)	DR/LAD	C	40
0023	National Energy Control Center (K-037)	DR/P&T	C	33
0026	Technology Transfer and Manpower Development III	HRDC/ET	C	123
0027	Rice Research and Training	AGR/A	C	64
0028	Grain Silos Storage (K-028)	DR/UAD	C	50
0029	Family Planning	HRDC/P	C	107
0030	Shoubra El Kheima Thermal Power Plant	DR/P&T	C	27
0033	Urban Electric Power Distribution Equipment (K043)	DR/P&T	C	34
0035	Canal Maintenance (K-040)	DR/UAD	C	66
0037	Grain, Tallow, Oils and Fats (K-041)	DR/UAD	C	51
0038	Cairo Water Supply (K-040)	DR/UAD	C	16
0040	Irrigation Pumping (K-039)	DR/UAD	C	67
0041	Agricultural Development Systems	AGR/A	C	68
0045	Development Industrial Bank II	TI/FI	C	89
0047	Port of Suez Project (K-049)	DR/UAD	C	52
0048	Canal Cities Water and Sewerage (K-050)	DR/UAD	C	18
0052	Quattamia Cement Plant (K-051)	TI/FI	C	90
0054	Telecommunications I (K-047)	DR/P&T	C	45
0060	Poultry Improvement	AGR/A	C	69
0061	Development Planning Studies	HRDC/ET	C	129
0062	Vocational Training for Productivity	HRDC/ET	C	126
0064	Aquaculture Development	AGR/A	C	70
0065	Urban Health Delivery System	HRDC/H	C	115
0066	Low Income Housing and Community Upgrading	DR/UAD	C	53
0070	Major Cereals Improvement System	AGR/A	C	71

<i>No.</i>	<i>Title</i>	<i>Office</i>	<i>Status</i>	<i>P.</i>
0072	Port Said Salines Plant	TI/FI	C	91
0079	Small Farmer Production	AGR/ACE	C	72
0089	Alexandria Sewerage I (K-044)	DR/P&T	C	19
0090	Industrial Productivity Improvement	TI/FI	C	92
0090.01	Management Development for Productivity	TI/FI	C	93
0090.02	Vocational Training for Productivity	TI/FI	C	126
0090.03	Industrial Technology Applications	TI/FI	C	94
0090.04	Innovative Productivity Activities	TI/FI	C	95
0091	Cairo Sewerage I	DR/UAD	C	20
0095	Agricultural Cooperative Marketing	AGR/A	C	73
0096	Small Scale Agricultural Activities	AGR/A	C	74
0097	Private Investment Encouragement (PIE) Fund	TI/FI	C	84
0100	Alexandria Wastewater System Expansion	DR/UAD	C	11
0101	Industrial Production (K-048)	TI/FI	C	85
0103	Basic Village Services (see 0161.2)	DR/LAD	C	42
0105	Mineral, Petroleum and Groundwater Assessment	S&T	A	131
0110	Peace Fellowships Program	HRDC/ET	C	124
0112	Private Sector Feasibility Studies	TI/FI	C	82
0113	Sinai Planning Studies	DR/UAD	C	41
0114	Vehicle Maintenance Training	HRDC/ET	C	127
0115	Tax Administration	TI/FI	C	128
0116	Agricultural Management Development	AGR/A	C	75
0117	Telecommunications III	DR/UAD	C	45
0118	University Linkages	HRDC/ET	A	121
0123	Energy Policy and Renewable Energy Field Testing	PDS/ENV	A	35
0123.01	Energy Policy Planning	PDS/ENV	C	28

<i>No.</i>	<i>Title</i>	<i>Office</i>	<i>Status</i>	<i>P.</i>
0123.02	Renewable Energy Field Testing	PDS/ENV	A	23
0125	Development Training	HRDC/ET	A	117
0127	Provincial Cities Development	DR/LAD	C	12
0132	Irrigation Management Systems	AGR/ILD	C	61
0136	Suez Area Medical Education	HRDC/H	A	125
0137	Control of Diarrheal Diseases	HRDC/H	A	113
0139	Basic Education	HRDC/ET	A	118
0140	Science and Technology for Development	PDS/ENV	A	101
0140.01	Science and Technology Cooperation	PDS/ENV	A	102
0140.02	Schistosomiasis Research	HRDC/H	A	110
0140.03	Energy Conservation and Efficiency	PDS/ENV	A	22
0140.04	Energy Manpower Development	DR/P&T	A	120
0142	Agricultural Data Collection and Analysis	AGR/A	C	76
0143	Decentralization Support Fund (see 0161.04)	DR/LAD	C	38
0144	Population	TI/FI	A	105
0147	Private Sector Production Credit	TI/FI	A	7
0152	National Agricultural Research	AGR/A	A	57
0153	Neighborhood Urban Services	DR/UAD	C	43
0159	Business Support and Investment	TI/FI	C	81
0160	Aswan High Dam Power Station	DR/P&T	A	24
0161.01	Development Decentralization I	DR/LAD	C	40
0161.02	Basic Village Services (was 0103, K-605.02)	DR/LAD	C	42
0161.03	Provincial Cities Development	DR/UAD	A	12
0161.04	Decentralization Support Fund	DR/LAD	C	38
0161.05	Neighborhood Urban Services	DR/LAD	C	43
0161.06	Sector Development and Support	DR/LAD	C	39
0165	Safaga Grain Silos Complex	DR/P&T	C	46
0170	Cost Recovery for Health	HRDC/H	A	109

<i>No.</i>	<i>Title</i>	<i>Office</i>	<i>Status</i>	<i>P.</i>
0174	Canal Cities Water and Wastewater II	DR/UAD	A	14
0176	Water and Wastewater Sector Institutional Support	DR/UAD	A	15
0177	Telecommunications IV	DR/P&T	A	45
0182	Local Development II	DR/LAD	A	37
0193	Cairo Water Supply II	DR/UAD	A	16
0194	Alexandria Electrical Distribution	DR/P&T	A	25
0196	Talkha Combined Cycle Plant	DR/P&T	C	29
0201	Private Enterprise Credit	TI/FI	A	79
0201.01	Private Sector Commodity Import Program	CMT	A	3
0202	Agricultural Production and Credit	AGR/A	A	59
0203	Child Survival	HRDC/H	A	111
0209	Public Finance Administration	HRDC/ET	A	119
0212	Small and Micro Enterprises	TI/FI	A	80
0215	Power Sector Support	DR/P&T	A	26