

United States Economic Assistance to Egypt



Status Report

December 1990

Introduction

Over the past 16 years, the U.S. government has provided about \$16 billion of economic assistance to Egypt. The FY 1991 program will total about \$1 billion. This assistance has supported broad economic goals of the Egyptian government and specific development programs to build a stronger economy and better life for the Egyptian people. The Agency for International Development (AID) carries out this assistance program. Throughout this report, AID refers to the overall agency, while USAID refers to AID's Mission in Egypt. The coordinating agency for the Government of Egypt (GOE) is the Ministry of International Cooperation.

This Status Report is a reference document, revised annually, to provide information on the current status of all of USAID's programs and projects in Egypt. It also serves as a historical record of completed projects.

Historical Perspective on the Program

Egypt faced several major problems when USAID's program began in 1975:

- Deteriorated physical infrastructure from neglect during the war years.
- A breakdown in technical and scientific ties and relationships with the West.
- A stalled economy.

Accordingly, during the early years, the USAID program concentrated on repairing the Suez Canal, reconstructing and expanding electric power, water and wastewater, grain storage, telecommunications and port facilities; rebuilding professional and institutional ties between Egypt and the U.S. through training, technical assistance and joint research between U.S. and Egyptian universities; and providing large-scale financing for essential imports to help revive the economy.

By the end of the 70s, the focus of the USAID program was broadened to give greater attention to agriculture, health and basic education to improve the quality of life of rural people.

Egypt's economic growth of six to eight percent per year in the late 70s and early 80s was not a result of increased productivity. President Sadat's "Open-Door" policies to invigorate the economy through economic liberalization measures had not altered the basic controls on resource allocation and production. A wide range of government policies left over from the Nasser era kept the government responsible for the important economic decisions of virtually every sector. The government's desire to keep consumer prices low, to ensure that the poor could afford basic market goods, and to channel investment into these products and services, led to price distortions and administrative regulations which discouraged growth and efficiency.

Failure of the economy to increase productivity, combined with a growing population and maintenance of widespread consumer subsidies, resulted in a growing fiscal burden for the GOE.

However, there was little need for the GOE to address these problems as long as revenues were growing from the newly-reopened Suez Canal, high oil prices and substantial worker remittances. These external sources of revenue were sufficient to pay for the maintenance of costly subsidies.

To use legislatively earmarked assistance levels effectively in this environment, USAID opted to allocate its resources to projects across the spectrum of the economy. While investments in every sector were constrained to one extent or another by policy issues, with a large number of project alternatives, USAID could vary commitments of new funds from one sector to another, depending on the soundness of the sectoral environment and the economic or social attractiveness of the particular projects.

Changes in the Economic Environment Facing Egypt

In the early 1980s, Egypt's boom period began to recede. Oil prices, which began declining in 1981, dropped sharply in 1985 and worker remittances from overseas leveled off. Egypt developed a serious balance of payments gap, ran large budget deficits and became increasingly hard-pressed to manage its external debt.

Gradually, the GOE began to come to grips with the need for a more fundamental structural reform of the economy, and in 1986 announced its commitment to an economic reform program. USAID supported GOE policymakers by a partial shift from project assistance to policy-based program and sector assistance. The Cash Transfer, which was first used in 1984, has provided USAID's first real vehicle for discussion of and support to the GOE macroeconomic reform. In addition, the Agricultural Production and Credit project has supported structural adjustment in the agriculture sector. These actions come at the beginning of the GOE's long and difficult process of economic transformation.

The key requirements for transforming the economy are:

- Moving toward market prices for allocating resources.
- Making the operation of Egypt's infrastructure and capital plants more reliable and efficient.
- Strengthening the growth sectors of agriculture and private industry.
- Improving the efficiency of investment in human resources.

As enunciated by President Mubarak, the nation's commitment to equity and social welfare remains strong, but Egypt's policymakers are increasingly aware that sustainable social programs must be financed through economic growth. Translating this into action is a slow and difficult process, however, and the government is cautiously trying to balance progress in economic policy change with the needs for equity and political stability. Too slow a reform pace could undermine the success of the effort.

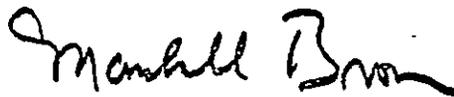
Current USAID Assistance Strategy

The critical development problem which Egypt must now address is low productivity of the economy.

The USAID strategy is to help Egypt increase economic productivity, particularly in agriculture and industry, by removing the constraints to the operation of market forces, while maintaining basic services to its people. Key elements of this growth strategy are:

- Economic reform to provide the incentives for production increases and an expanded role for the private sector.
- Science and technology to provide the means to increase production and productivity.
- Cost-recovery in provision of legitimate government services, to promote efficient use and reduce the budgetary burden.

The Sector Profiles preceding the major sections of this report describe how this strategy is being implemented, and attempt to put the projects in a sectoral context.



Marshall D. Brown
Director

Completed projects will be found at the end of each section printed on blue paper. Major contractors for each project are identified in the project descriptions. A complete list of current contractors for projects carried out in Egypt can be obtained from the Office of Project Support at the USAID Mission.

The Annex is a numerical list of projects. A financial breakdown of A.I.D. assistance to Egypt since 1974 by type of assistance and by sector of project activity can be found at the front of the book.

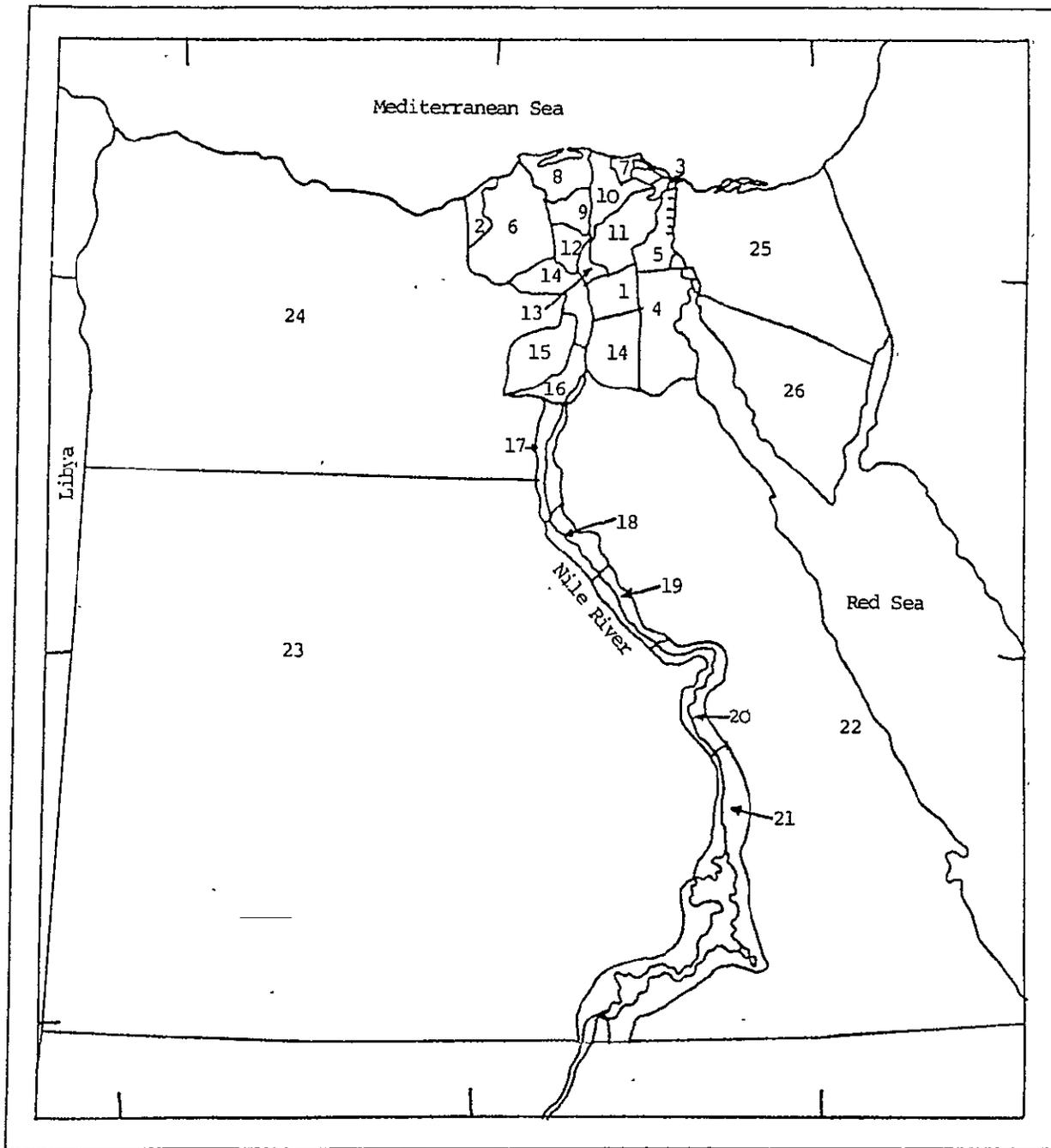
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ARAB REPUBLIC OF EGYPT



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
▲ Mansura
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. Menia
▲ Menia
18. Assuit
▲ Assuit
19. Suhag
▲ Suhag
20. Qena
▲ Qena
21. Aswan
▲ Aswan

FRONTIER GOVERNORATES

22. Red Sea
▲ Hurghada
23. New Valley
▲ Kharja
24. Marsa Matrouh
▲ Matrouh
25. North Sinai
▲ El Arish
26. South Sinai
▲ El Tur

▲ Capital of Governorate

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U.S.

ECONOMIC

ASSISTANCE

U.S. ECONOMIC ASSISTANCE TO EGYPT 1975 - 1990 (\$ MILLION)

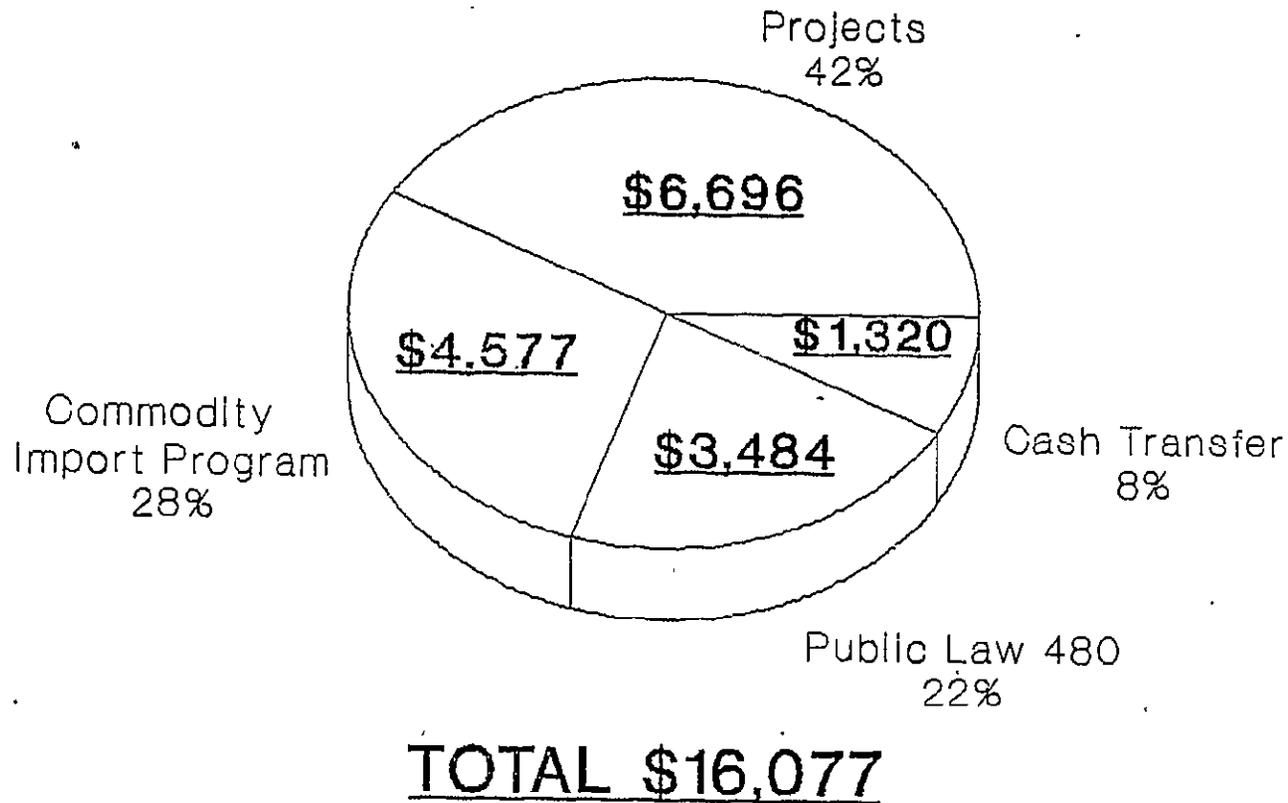


Fig 1

PROJECTS BY SECTOR

1975 - 1990 (\$ MILLION)

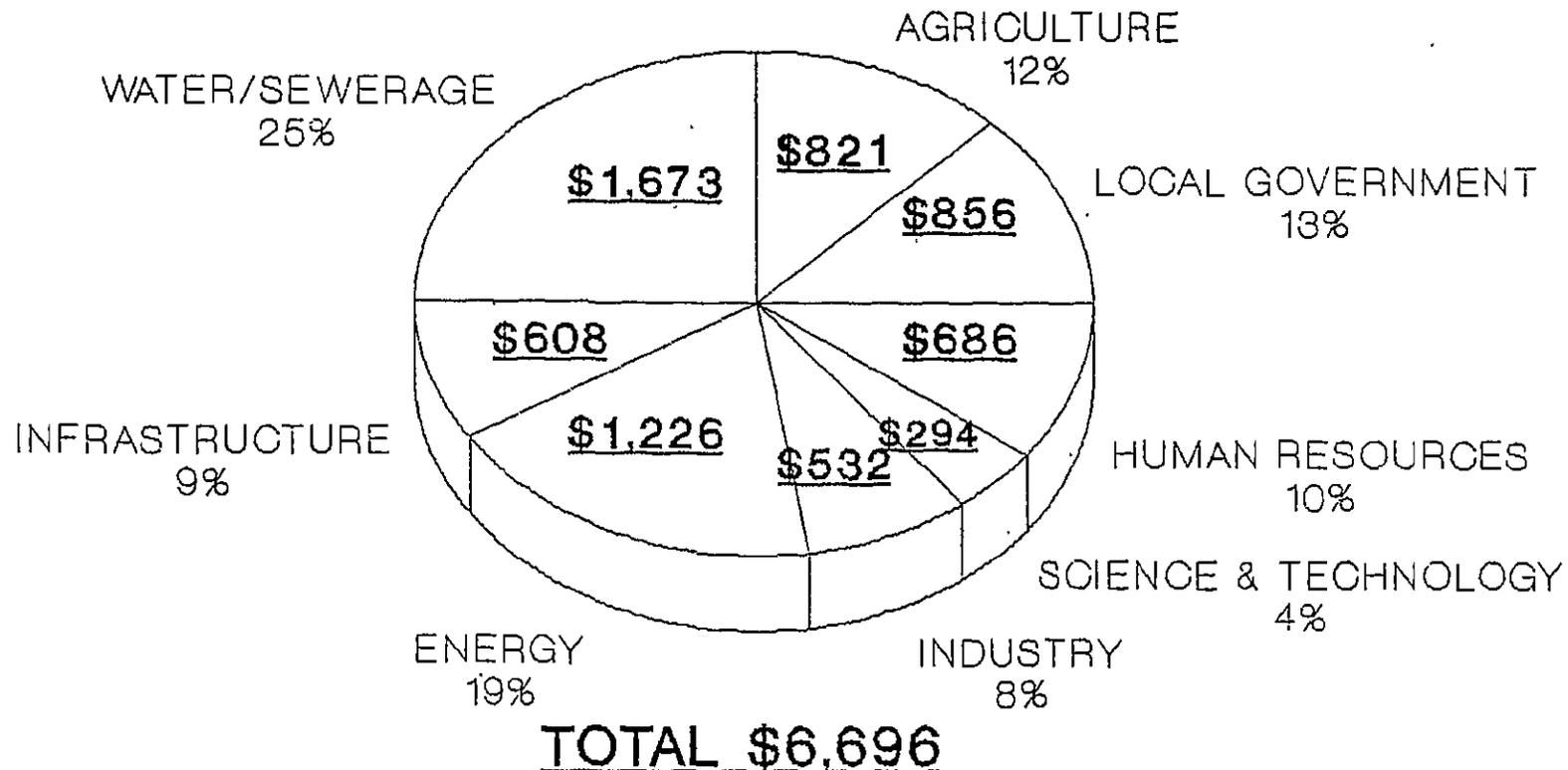
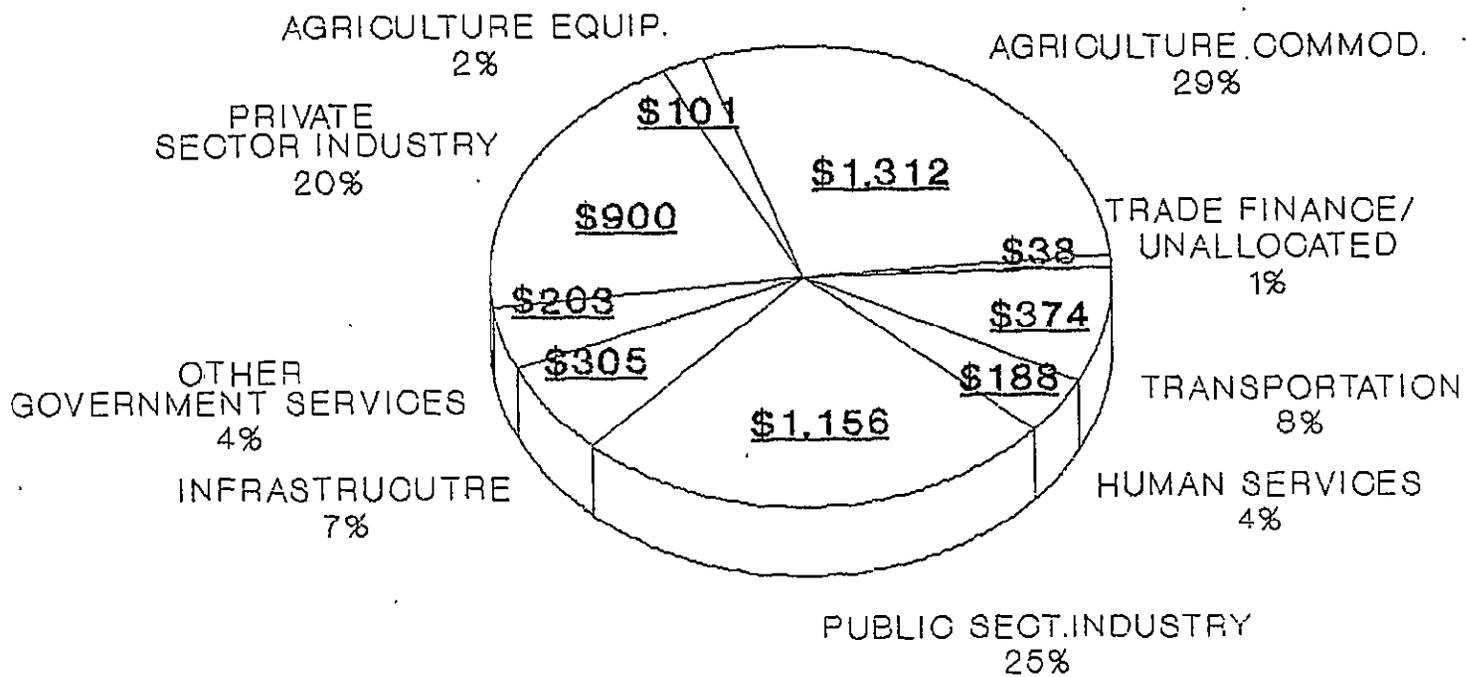


Fig 2

COMMODITY IMPORT ALLOCATIONS BY SECTOR FY 1975 - 1990 (\$ MILLION)



TOTAL \$4,577

Fig 3

I. 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 includes:

Title I: A program for financing U.S. agricultural commodities imports to Egypt at concessional interest rates.

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

Title III: A program, also completed, 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 GOE were initiated in 1984. These dollar grants assist in the relief of Egypt's balance of payments problems and support the GOE's efforts to undertake structural reform of the economy.

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PL 480 TITLE I

Purpose: To provide balance of payments support to the Egyptian government by financing the import of U.S. agricultural commodities through loans granted at concessional rates. This assistance also encourages the Government of Egypt (GOE) to enact agricultural reforms.

Description: The PL 480 Title I program in Egypt provides low-interest loans to purchase agricultural commodities, principally wheat and wheat flour. For FY 1991, the amount of PL 480 Title I credit has been budgeted at a level of \$150 million; such loans may have a maturity of up to 30 years, with a grace period of up to seven years. For FY 1978 to FY 1990 the maturities were set at 40 years, with grace periods of 10 years; from 1975 through 1977, loan terms were 20 years repayment, including a two-year grace period; typically, the interest rate has been set at two percent during the grace period and three percent for the remainder of the loan period. The program is administered primarily by the U.S. Department of Agriculture (USDA). The primary responsibility of USAID is to help negotiate the development objectives expected of the government under each agreement. USDA is responsible for purchasing, shipping and providing quality control services for imported commodities. The primary Egyptian implementing agency is the General Authority for Supply Commodities (GASC).

<u>Current Status:</u>	Active
<u>Duration:</u>	Continuing (program initiated in FY 75)
<u>Funding to Date:</u>	\$2.87 Billion

Implementation Progress:

- PL 480 Title I accounts for about 20 percent of Egypt's wheat imports.
- The GOE moved toward meeting most of the objectives of the self-help program:
- Disincentives such as low-priced procurement quotas are being phased out. Only three crops - cotton, sugarcane and rice - are still controlled; Farmgate incentives for rice and, to some extent, cotton, are being improved in order to more nearly reflect world prices.
- Subsidies for cattle feed have been reduced during 1990.
- Efforts to reduce the consumer subsidy bill are continuing. Subsidies for flour, rice and sugar have been reduced significantly since 1988/89.
- Fertilizer prices were increased significantly further in 1989/90 and now average about 65 percent of world prices at the retail level.
- Efforts to expand the share of private marketing of agricultural inputs have shown significant progress during 1990 (corn imports, fertilizer).

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

PL 480 TITLE II

Purpose: (a) To reduce infant and maternal mortality and morbidity by providing nutrients to infants during their weaning period and to their mothers; and (b) to provide nutritious meals to other young children at day care centers and 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 and 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 agency was a Government of Egypt interministerial committee responsible for receiving, warehousing and transporting commodities from the port of discharge to the feeding sites.

<u>Current Status:</u>	Completed
<u>Duration:</u>	FY 75 - FY 89
<u>Total Funding:</u>	\$179.0 Million

Project Accomplishments:

- After the inception of the PL 480 Title II program in 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, were delivered to recipients of the three major programs.
- From 1975 until it ended in 1985, the School Lunch Program reached an estimated 10.7 million children.
- The MCH program reached an estimated 11.4 million infants and mothers. In FY 1987 the MCH program, under CRS administration, received 8.4 thousand MTs of milk powder and vegetable oil to provide for 630,000 mothers and infants in maternal child health centers located throughout Egypt.
- After its inception in 1975, the OCF program reached an estimated 1,058,390 children and 1.6 million adult relief recipients. In FY 1987 the OCF, through CRS and CARE, 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

Project Accomplishments:

- The number of BVS projects implemented by village councils increased.
- The project supported the GOE's policy of decentralization of development-oriented services by strengthening design, management and maintenance services at the local level.
- Technical improvements in the design and management of the BVS program were facilitated.

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), extension 3324.

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 (MIC), 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
<u>Duration:</u>	Continuing since FY 75.
<u>Funding to Date:</u>	\$3.81 Billion

Implementation Progress:

- Since initiation in 1975, funds provided under the program have financed the importation of a total of \$3.71 billion in U.S. commodities, including such items as machinery, equipment, spare parts, raw materials, semifinished 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), extension 3240.

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 finances a \$1 million training and studies component for upgrading the level of administration and management of participating banks. The Egyptian implementing agency is the Ministry of International Cooperation (MIC).

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

Implementation Progress:

- 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.
 - Ramsis 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 Institute for Bankers, a new bank training facility associated with the Central Bank of Egypt.

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

PRIVATE SECTOR COMMODITY IMPORT PROGRAM
(263-0201.01)

Purpose: To help Egyptian productive Private sector enterprises meet their import requirements by providing the necessary foreign currency and credit.

Description: The Commodity Import Program - Private Sector (PRCIP) 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. This program is a continuation and expansion of USAID's Private Sector Production Credit Project (263-0147). The program is coordinated by the Ministry of International Cooperation (MIC), but primary implementation responsibility rests with 27 local private and public sector banks.

<u>Current Status:</u>	Active
<u>Duration:</u>	FY 86 - FY 93
<u>Approved Total Funding</u>	\$660 Million
<u>Funding to Date</u>	\$660 Million

Implementation Progress:

- Over 600 Egyptian private sector importers have used resources made available under the current and previous PRCIP program. Likewise, 1,400 U.S. manufacturers and suppliers from 46 states have exported over 110 different commodities to Egypt under the programs. These commodities range from raw materials to capital equipment.
- Nearly 2,400 transactions valued at over \$600 million have been approved under the current Private Enterprise Credit Project. A sample of transactions include plastic resins, grains, irrigation systems, spare parts, copper wire and dental equipment.
- Many small farms have benefitted from the program. More than 1,200 businesses with less than 50 employees have participated to date.
- Though the program was hampered in 1987 after the sudden exchange rate revision that severely weakened the Egyptian pound against the dollar, the MIC issued a new General Operating Circular in March 1989, which has significantly boosted participation in the program. Transaction approvals currently exceed \$8 million per week. The Circular outlines more attractive terms for importers such as higher transaction ceilings, longer repayment periods and a set aside for the difference between U.S. and non-U.S. flag cargo services.

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

CASH TRANSFERS

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

Description: This program provides foreign exchange financing, which the Egyptian economy needs to import the goods and services needed to revitalize its economy. This mode of assistance began in 1984 when USAID, in response to an appeal from the Government of Egypt (GOE), reprogrammed excess funds from existing projects and programs to finance a special grant for balance of payments support. Since FY 1984, USAID has approved cash transfers on an annual basis although releases of funds have been delayed at times due to slow progress in policy reforms. These funds are used to encourage and support structural reform of the economy.

Current Status: Active
Duration: Annual allocations from FY 84-Fy 90
Funding to Date: \$1,320 million

Implementation Progress:

- USAID conducts cabinet-level dialogue on macroeconomic policy with the GOE. This has helped the GOE 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 GOE negotiations with the IMF and 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.

II. 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.

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WATER AND WASTEWATER Sector profile

Since 1978, USAID has committed more than \$2 billion in support of water and wastewater system rehabilitation and expansion in Cairo, Alexandria, the canal cities of Ismailia, Suez and Fort Said and the provincial cities of Minia, Fayoum and Beni Suef. USAID is increasingly shifting the emphasis of its support in the sector from construction of new facilities to institutional support and improved operation, maintenance and cost recovery of the systems.

Urbanization presents a formidable problem for Egypt. In Cairo, the population has doubled in the past 25 years while urban infrastructure has expanded only fitfully. Overtaxing water and wastewater facilities combined with poor maintenance caused significant deterioration. In the mid-70s, over 100 sewage flooding incidents occurred daily on the streets of Cairo. By contrast, Cairo streets are now nearly free of sewerage flooding. The USAID-financed rehabilitation of 51 subsidiary pumping stations and 39 ejector stations, construction of six new pumping stations and installation of 27 kilometers of force mains and gravity sewers have vastly improved the hydraulic capacity of the 80-year-old wastewater system.

Given the poor conditions of water and wastewater systems at the time USAID assistance began, rehabilitation had to precede expansion. Consequently, the major impact of the program to date has been on resolving system problems and improving services in areas currently included in the system, rather than expanding into new areas. For this reason, the lowest income groups, many of whom live in informal settlements that have sprung up with rapid urban population growth, remain unserved by existing water and wastewater systems. USAID is addressing the needs of people in the unsewered areas by expanding the system of laterals and house connections in three districts of Giza on the west bank of the Nile.

As an indication of Egypt's commitment and U.S. concern, the two governments signed a Memorandum of Understanding (MOU) in 1984 committing both countries to an ambitious five-year program to improve urban water and wastewater services. In return for the \$1.2 billion in capital assistance over six years, the Government of Egypt (GOE) agreed to undertake institutional changes such as improving operations and maintenance (O&M), increasing water and wastewater user tariff rates and upgrading and improving staff performance in the local water and wastewater organizations.

To support these efforts USAID has authorized a comprehensive multi-year management assistance effort for the major water and wastewater authorities. Water tariffs have been increased to cover over 50 percent of operations and maintenance costs; further rate increases will enable greater cost recovery in future years. The surcharge, which is added to the water tariff for sewer services, will be increased from 10 to 50 percent in January 1991. USAID is committed to continuing dialogue with the GOE to increase water and wastewater tariffs so that utilities can meet their recurrent costs, and to improve the operations and maintenance, planning and management of water and wastewater utilities and administrative agencies.

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 (AGOSD).
- Sewerage project design services.
- Construction engineering services.
- Construction of sewerage facilities.
- Provision of related equipment and supplies.

The primary Egyptian implementing agency is AGOSD.

<u>Current Status:</u>	Active
<u>Duration:</u>	FY 79 - FY 93
<u>Approved Total Funding:</u>	\$328.4 Million
<u>Funding to Date:</u>	\$301.4 Million

Implementation Progress:

- The Wastewater Consultants Group (WWCG), consisting of CH2M Hill and Metcalf and Eddy Inc., has completed all design activities. WWCG continues its construction management and O&M training role.
- The construction of five pump stations by Fischbach-Moore-Oman International is finished. The construction of the sewerage tunnel by McLean-Grove is 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 awarded for construction of undercrossings and the Sludge Management Facility. These two contracts are scheduled to be awarded in late 1991.

Implementing Office: Office of Urban Administration and Development (DR/UAD), extension 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 to improve the water and wastewater systems.

Description: The project finances technical assistance to the three provincial city governments and provides for operating and maintenance improvements in each city. Design and construction of selected urban infrastructure projects, particularly water and sewerage systems, are also undertaken. The water and sewerage projects emphasize improvement and extension of existing facilities. The Egyptian implementing agencies are the Project Steering Committee comprised of the mayors and governors of the three provincial cities and governorates, along with the National Organization for Potable Water and Sanitary Drainage (NOFWASD) and the Ministry of Planning (MOP).

<u>Current Status:</u>	Active
<u>Duration:</u>	FY 81 - FY 91
<u>Approved total Funding:</u>	\$110 Million
<u>Funding to Date:</u>	\$110 Million

Implementation Progress:

- 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 4,000 cubic meters and related work in the three cities was signed in June 1988 between NOFWASD 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 civil work for these water treatment plants is 80 percent complete.
- 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 300 contracts for these subprojects have been awarded and almost 80 percent have been completed. Subproject financing is through Fixed Amount Reimbursement (FAR) procedures.

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

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 plants.

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 kilometer of culverts and six 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, Zenein and the Pyramids, using Egyptian contractors. Training in management and operation will be provided to the Cairo General Organization for Sanitary Drainage (CGOSD). The Egyptian implementing agency is the Cairo Wastewater Organization (CWO).

<u>Current Status:</u>	Active
<u>Duration:</u>	FY 84 - FY 94
<u>Approved Total Funding:</u>	\$816.0 Million
<u>Funding to Date:</u>	\$640.5 Million

Implementation Progress:

- Construction of the culverts and six pumping stations by Fru-Con Construction Corporation and Fuller/Wallace was completed in 1990.
- An Egyptian Contractor is constructing a seven-kilometer sewer system to relieve pressure on the Giza pumping station.
- Rehabilitation of the Zenein Treatment Plant, designed to handle 330,000 cubic meters of wastewater, was finished by Sadelmi N.Y. in December 1990. Construction of the Abu Rawash Treatment Plant started in April 1990, also by Sadelmi N.Y., and is 20% completed.
- Harbert/Jones J.V. is constructing collectors and sewers in Embaba and Mohandeseen. Work began in September 1989, and is now 40% completed.
- 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), extension 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) Operation, maintenance and management institutional development and training.

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

<u>Current Status:</u>	Active
<u>Duration:</u>	FY 87 - FY 97
<u>Approved Total Funding:</u>	\$380.0 Million
<u>Funding to Date:</u>	\$109.4 Million

Implementation Progress:

- A consultant partnership of Black & Veatch International, James M. Montgomery, Dames and Moore and the Egyptian firm Sabbour is providing Construction Management Consultation (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 and Ismailia Cities.
- Revised prequalification documents were issued to generate greater interest from US Design/Build firms in the project and increase competition. CMC will review the new submittals and the report recommending the final short listed firms will be submitted to NOPWASD and USAID by mid-November 1990. The first contract will be let at the end of 1991.
- The requests for proposals for Institutional Development Contract services were sent out on October 9, 1990 and the submission date is 11/28/90.

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

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 agencies are MHPU and NOPWASD.

<u>Current Status:</u>	Active
<u>Duration:</u>	FY 85 - FY 93
<u>Approved Total Funding:</u>	\$15.0 Million
<u>Funding to Date:</u> _____	\$10.0 Million

Implementation Progress:

- Operation and maintenance training for the municipalities has begun. Upon full authorization, further assistance will be provided to the municipalities.
- NOPWASD selected Boyle Engineering Corporation and National Education Corporation to provide technical assistance to NOPWASD AND MHPU through a 30-month contract, which will run to July 1991.

Implementing Office: Office of Urban Administration and Development (DR/UAD), extension 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 pump stations. Following from 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 agency is the GOGCWS.

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

Implementation Progress:

- CH2M-Hill, under the Technical Cooperation and Feasibility Studies Project (263-0102), has produced an engineering study to upgrade North Cairo's water distribution system.
- GOGCWS has selected and acquired the land for the four reservoirs in Abbassia and Darrassa. Four contractors prequalified for the construction of reservoirs, pump stations and transmission lines. A local contractor has been selected for the construction of distribution pipelines (locally funded). Contractor has started mobilization.
- Under the Cairo Water Supply I Project (263-0038), James M. Montgomery has completed designs for the central laboratory and the training plan for the institutional support portion of the project. A contract for furnishing equipment and training for a Central Water Quality Laboratory is being negotiated.
- GOGCWS is currently reviewing prequalification information from contractors to provide technical assistance required to strengthen the institutional capacity of GOGCWS.

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

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 agency was the GOGCWS.

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

Project 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 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), extension 3318.

CANAL CITIES WATER AND SEWERAGE SYSTEMS
(263-0048)

Purpose: To provide urgently needed improvements to the water and sewerage 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; and 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 agencies 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

Project 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), extension 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 agency was the Alexandria General Organization for Sanitary Drainage (AGOSD). Camp Dresser and McKee was the primary contractor.

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

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

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

Project 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.
- AMERIC 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), extension 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 eight percent annually since the mid-80s; however growth in electricity has slowed to five percent annually with peakload about one percent. 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. In 1984, an estimated 75.3 percent of households had 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 encourage inefficient use of energy, which threatens the country's current and potential status as an oil exporter.

Though the GOE has taken some positive measures to adjust energy prices, over the past ten years energy price increases have lagged behind the overall inflation rate. USAID's policy is to relate funding levels for capital assistance to electricity projects to progress on rate increments.

Price subsidies also have distorted production patterns and investment decisions, and they are a heavy burden on the national budget. Electricity prices, currently at one-fourth of world market rates, are being raised annually, closing the gap between economic cost and the subsidized cost.

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.

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 1990, USAID has provided over \$1.2 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 10,650 MW in 1990. USAID assistance contributed to the installation of 2,576 MW of this additional generating capacity -- or nearly 25 percent of the total installed capacity in Egypt. Current projects in the energy sector emphasize expanded generation, rehabilitation of facilities, a more rational pricing structure, energy policy planning, renewable energy technologies and energy conservation.

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 consists 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 is supported by a USAID grant, as well as the Egyptian Government, World Bank, African Development Bank, European Investment Bank, Italy, France, Canada and Japan. USAID is financing the following for the four power units:

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

USAID is also financing reinforcing steel (Owen Steel Company) and water treatment systems (Infilco Degremont, Inc.) and training (Salt River Project) for Unit Four. The primary Egyptian implementing agency is the Egyptian Electricity Authority (EEA).

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

Implementation Progress:

- Construction of all four generating units is complete. The first unit was synchronized to the EEA system by September 1985, and the fourth in September 1988; all four units have operated reliably at full design output.
- The Overseas Bechtel, Inc. contract includes consulting services for the 500 Kilovolt (KV) transmission extension from Shoubra El Kheima to the Tebbin substation in southern Cairo.
- In addition to receiving long-term training on the design, operation and maintenance of the control system being installed on Unit Four, the EEA operators and maintenance staff for Unit Four completed "on-the-job" training at the Salt River Project Coronada Power Station in Arizona.

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

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 52 U.S. firms providing equipment and materials under the project including:

General Electric, Cablec Corp., 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 agencies are the Egyptian Electricity Authority (EEA) and the Alexandria Distribution Company (ADC) of the Ministry of Electricity and Energy (MOEE).

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

Implementation Progress:

- 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 continues with 17 of the 20 contracts completed. Siemens Energy and Automation, Inc. constructed three substations, which were completed in October 1990. Cablec Corporation is supplying 66 Kilovolt (KV) cables to connect the substations to the EEA transmission network.

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

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 will enable 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 agencies 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>	Active
<u>Duration:</u>	FY 82 - FY 91
<u>Approved Total Funding:</u>	\$32.6 Million
<u>Funding to Date:</u>	\$21.1 Million

Implementation Progress:

- Two subprojects are being implemented. They are:
 - 0123.01 Energy Policy Planning.
 - 0123.02 Renewable Energy Field Testing.

- Implementation progress of these two activities is described on their individual project sheets in section II.A.2 of this report.

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

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, the replacement of protective relays on the 500 kilovolt (KV) transmission lines connecting the power station to Cairo, replacement of the 500 KV circuit breakers and control instrumentation and rehabilitation of the hydraulic gates that admit water to the station. Since 10 turbines must remain in operation at all times to meet the current demand for power generation, the project is replacing 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. Relay systems are being replaced by Gilbert/Commonwealth, International, Inc. Circuit Breakers are being replaced by ABB/US (Asea Brown Boveri). The primary Egyptian implementing agency is the Egyptian Electricity Authority (EEA).

<u>Current Status:</u>	Active
<u>Duration:</u>	FY 82 - FY 95
<u>Approved Total Funding:</u>	\$140 Million
<u>Funding to Date:</u>	\$140 Million

Implementation Progress:

- Replacement of runners for the fifth pair of turbine runners began in June 1990. All 12 turbines are scheduled to be completed by April 1992. Overall implementation of the project is progressing on schedule.
- Replacement of protective relaying on the two 500 KV transmission lines between the High Dam and Cairo is proceeding. All work should be completed in March 1991. EEA staff attended turbine runner, governor and protective relaying training classes in the U.S.

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

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 and twenty 11 KV 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 66 KV subtransmission network. This will be achieved by the installation of a dispatch control center and training in operation and maintenance.

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

<u>Current Status:</u>	Active
<u>Duration:</u>	FY 89 - FY 97
<u>Approved Total Funding:</u>	\$50.0 Million
<u>Funding to Date:</u>	\$20.0 Million

Implementation Progress:

- The project agreement was signed in the fourth quarter of FY 89 and is in the early stages of implementation.

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

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. Technical assistance in studies and project monitoring will also be provided.

- Installation of a gas turbine, a steam turbine and a heat recovery system to the Cairo South Generating Plant. This will raise 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 several gas turbine generating units and their installation in the Hurgada-Safaga coastal region.
- Expansion of EEA's microwave communication system from Cairo to the Suez area.
- Provision of spare and replacement parts and work equipment.
- Completion of electricity pricing strategy and loss reduction studies.
- Installation of a 1200 MW thermal power station at El Kureimat.
- Upgrading of the National Energy Control Center computers.

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

<u>Current Status:</u>	Active
<u>Duration:</u>	FY 89 - FY 99
<u>Approved Total Funding:</u>	\$351 Million
<u>Funding to Date:</u>	\$251 Million

Implementation Progress:

- The project agreement was signed in September 1989. The project agreement was amended in August and September 1990. All components of the project are in the early stages of implementation.

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

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 electric distribution systems. Equipment included replacement and repair of underground cable, switchgear, transformers, distribution points, main distribution boxes, capacitor banks, tools and fittings. The primary Egyptian implementing agency was the Egyptian Electricity Authority. 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

Project Accomplishments:

All equipment was purchased and installed.

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

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

Project 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 Urban Administration and Development (DR/UAD), extension 3318.

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 agency 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

Project 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 Urban Administration and Development (DR/UAD), extension 3318.

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 43 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 agency was the Egyptian Electricity Authority (EEA).

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

Project 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 Urban Administration and Development (DR/UAD), extension 3318.

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 includes 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 agency is the Egyptian Electricity Authority (EEA).

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

Project Accomplishments:

- The Talkha combined cycle unit is currently in operation and producing an additional 110 MW of electric power to the Egyptian National grid with no additional fuel consumption.

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

LOCAL DEVELOPMENT/DECENTRALIZATION

Sector profile

The system of responsible, elected local government councils was established in Egypt in 1960. However, it wasn't until the 1970s that local government units began to exercise the authority delegated to them. Principal reasons were lack of experience and lack of fiscal resources. From 1978 to present, USAID has provided about \$856 million in support of the Government of Egypt's (GOE) shift toward locally initiated and managed development.

The overall objective for local government/decentralization assistance is to improve and expand the capacity of local governments to plan, finance, implement and maintain locally chosen basic service projects.

Six of USAID's projects in this sector fall under the umbrella of the Decentralization Sector Support Project (263-0161), including the Provincial Cities Project (263-0161.03) which is found in section II A 1 of this report. This program has been highly successful in helping the GOE strengthen pluralism and encourage participation through devolving responsibilities to popularly elected councils and local institutions.

Local councils have designed and implemented about 20,000 subprojects and are using more than 2,100 items of heavy equipment, such as service trucks, graders and fire engines. Over 30 percent of the projects are potable water & wastewater projects and 20 percent are village feeder centers, roads and urban streets. Others include sanitary drainage, canal lining, maintenance, school construction and health clinics, vocational training workshops and hostels for youth and the elderly. The physical result of these projects is improved access to basic services, particularly potable water and farm-to-market roads.

More than 100,000 elected officials and local government staff have been trained in decentralized project planning and management. 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 their own resources to upgrade infrastructure made possible by USAID grants.

The GOE has demonstrated its commitment to decentralization through transfer of decision-making and fiscal authority to elected and executive councils and local government. Local projects are implemented by Egypt's 26 governorates with the support of national ministries.

The GOE agreed, in 1990, to implement key local government reforms, including predictable revenue-sharing grants to local governments, and to increase local fiscal authorities, such as collection and retention of local user fees and taxes, especially for sustained operation and maintenance of basic services.

As a result of USAID assistance programs to this sector, an estimated 30 million low-income Egyptian citizens have greater access to improved basic services.

DECENTRALIZATION SUPPORT FUND
(263-0161.04)

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

Description: This project establishes a support fund that enables governorates to obtain capital equipment for local development programs. Each of the 21 rural governorates receives U.S. dollar budget support to purchase American equipment for local programs in public utilities, infrastructure and social services. The Egyptian implementing agency is the Ministry of Local Administration (MLA).

<u>Current Status:</u>	Active
<u>Duration:</u>	FY 82 - FY 91
<u>Approved Total Funding:</u>	\$100 Million
<u>Funding to Date:</u>	\$100 Million

Implementation Progress:

- \$94 million in equipment and spare parts has been procured through host country contracting for 21 rural governorates for sanitation, road maintenance, fire protection, and water purification and desalination for potable water systems.
- Solid links between governorates and suppliers have been established for basic training and equipment maintenance.
- Funding has been approved and bids received for equipment to support rehabilitation of the Qena/Safaga/Fiurghada water transmission pipeline. This is the final procurement under the project (1990-1991).

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

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 provides assistance for further defining GOE policy objectives of fiscal and administrative decentralization and developing governmental strategies for local development in Egypt. The activities financed under the project fall into the following broad categories: training, systems development and improvement, institutional development and evaluation. The Egyptian implementing agency is the Ministry of Local Administration (MLA).

<u>Current Status:</u>	Active
<u>Duration:</u>	FY 82 - FY 92
<u>Approved Total Funding:</u>	\$10 Million
<u>Funding to Date:</u>	\$10 Million

Implementation Progress:

- A water assessment study has led to recommendations for improving the use and distribution of water resources. The assessment concluded that the project has significantly improved quantity and quality of water in Egyptian villages.
- Under the Training Block Grant component, USAID has disbursed LE 100,000 to 16 governorates, (total LE 1,600,000) for technical and management training.
- \$1.6 million was disbursed for specialized Technical Training for local government staff carried out by the U.S. contractors responsible for providing technical assistance to the urban and provincial governorates. Governorate staff are planning and implementing 4,000 local basic services projects (LDII funded) each year.
- The Rural Small Scale Enterprise (RSSE) Pilot Credit Activity has disbursed 4,800 loans to small scale entrepreneurs for a total amount of LE 3,959,650 (\$1,466,500). This credit activity is being implemented by the National Bank for Development (NBD) with Agriculture Cooperative Development International (ACDI). The RSSE activity is now being designed as a separate discrete project under the USAID Trade and Investment Directorate.
- A 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 at the village level.

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

LOCAL DEVELOPMENT (LD II)
(263-0182)

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

Description: LDII strengthens the capacity and accountability of local governments and organizations in planning, financing, implementing, operating and maintaining basic services projects. Pluralism is encouraged through development decision-making by popularly elected councils and beneficiary participation. In 1990, the GOE agreed to accelerate key local government policy reforms - including predictable revenue-sharing to local government - and to decentralize fiscal authorities - including collection and retention of local revenues for operation and maintenance. Policy reform dialogue by a GOE National Policy Committee and USAID is supported through a new sector assistance performance grant of between \$60 and \$75 million per year. The GOE is now contributing an equal amount in local currency for project block grants, and additional recurrent cost financing. Technical assistance contractors are DAC International, Wilbur Smith and Associates, Chemonics and EduSystems. The primary Egyptian counterparts are the Ministries of Local Administration Finance and Social Affairs and participating governorates.

<u>Current Status:</u>	Active
<u>Duration:</u>	FY 85 - 92
<u>Approved Total Funding:</u>	\$481 Million
<u>Funding to Date:</u>	\$341 Million

Implementation Progress:

- Egypt's 26 governorates, with the assistance of concerned ministries, are implementing 3,500 projects annually, including water/wastewater; roads; schools; health and youth facilities; and equipment procurement. Over 12,000 projects have been funded and 100,000 local officials trained, often using and strengthening local private sector firms. LDII is piloting new technologies, management and financial systems including: 1) appropriate, low-cost wastewater technologies; 2) equipment maintenance centers using private sector management; 3) a rural small-scale enterprise credit system using market-interest rates; 4) a decentralized, urban budgeting system; and 5) urban land development with emphasis on cost recovery and private sector involvement. Over 3,500 small grant projects have been implemented by Private Voluntary Organizations (PVOs) providing needed services to low-income areas. PVOs provide 25 percent of project costs from user fees and contributions. An estimated 30 million citizens, or over half of Egypt's population, have participated in the development of increased basic services and are benefiting from local economic and social development under LD II.

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

DEVELOPMENT DECENTRALIZATION I
(263-0021 and 263-0161.01)

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 agency was ORDEV, a department of the Ministry of Local Administration (MLA).

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

Project Accomplishments:

- LDF provided 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 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/IAD), extension 3324.

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 the local levels in all participating governorates.

Description: Twenty-two of the twenty-six governorates of Egypt were active participants in the project. Particular emphasis was placed on elected village councils, as opposed to appointed, executive officials, in project selection and implementation. The project provided a coordinated mix of technical assistance, training and block grants to about 870 village 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 agencies were the 22 governorates assisted by the Organization for Reconstruction and Development of the Egyptian Village (ORDEV) under the Ministry of Local Administration (MLA).

<u>Current Status:</u>	Completed
<u>Duration:</u>	FY 80 - FY 88
<u>Total Project Funding:</u>	\$225 Million (Plus \$ 75 Million additional funding from P.L. 480 Title III)

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

Project 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.
- Nine hundred and seventy-four new classrooms were constructed.
- One hundred and seven 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/IAD), 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 (ARENIO), 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, is assisting ARENIO with managerial and technical support services for all installation and construction activities and for improvement of ARENIO's operations. Additionally, ARENIO is receiving assistance from other U.S. firms, American Telephone and Telegraph International, Inc. 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 additional telephone exchanges (for a total of 12 in the four projects) in crowded, growing areas of Cairo. The Egyptian implementing agency is ARENIO.

	<u>Project</u> <u>263-0054</u>	<u>Project</u> <u>263-0075</u>	<u>Project</u> <u>263-0117</u>	<u>Project</u> <u>263-0177</u>
<u>Current Status:</u>	Completed	Completed	Completed	Active
<u>Duration:</u>	FY 78 - FY 83	Fy 79 - FY 86	FY 80 - FY 90	FY 88 - FY 93
<u>Approved Total Funding:</u>	\$40 Million	\$80 Million	\$122 Million	\$40 Million
<u>Funding to Date:</u>	\$40 Million	\$80 Million	\$122 Million	\$40 Million

Project 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 2.1 million users in Cairo and Alexandria. ARENIO has increased telephone subscription by 65 percent and the installation rate by 50 percent.
- ARENIO'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 ARENIO to monitor and pinpoint trouble areas in the entire Cairo telephone network.
- Telecommunications Phase IV has started and Flour Daniel has been appointed as consultant to ARENIO. American Telephone and Telegraph (AT&T) has been awarded the contract for the turnkey design, supply and installation for the Pyramid West and El Kalaaa exchanges work on the installation of the digital switches and the training of ARENIO engineers is underway.

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

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 agency was the Suez Canal Authority.

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

Project 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 3318.

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.

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

Project 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 3318.

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 agency was the Alexandria Port Authority. The U.S. consulting engineer was PRC Harris, Inc.

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

Project 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 3318.

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 agency was the General Authority for Supply Commodities (GASC). GASC's consultant was de Laureal 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.

Ferwall Corp.: explosion suppression systems.

U.S. Steel: rebar and fabricated structural steel.

Transoceanic Shipping: freight forwarding services.

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

Project 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), extension 3318.

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/day transportable grain handling facility in the port of Alexandria were constructed. The primary Egyptian implementing agency was the General Authority for Supply Commodities (GASC). Black and Veatch International was GASC's consultant; Harbert-Howard Company was the construction contractor.

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

Project 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), extension 3318.

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 agency. 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, American Export Group, Midestco Enterprises, Inc., General Electric Trading Co., 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 agency.

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

Project 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 (HNC) 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 agency was the Executive Agency for Joint Projects (EAJP).

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

Implementation Progress:

- Construction of the planned model housing in the Helwan New Community 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 EAJP sold 1,744 plots in neighborhoods three, four and six to Helwan factory workers. The GOE is constructing apartment buildings in half the neighborhoods, and individual workers are building their own homes on plots they purchased in the remaining neighborhoods. A local currency fund has been established to provide mortgage financing. To date, a total of 1,982 houses and flats were completed, and 1,144 families are currently living in the HNC.
- 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), extension 3318.

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 agency.

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

Project 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 (DU/UAD), extension 3318.

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 and a nine MW diesel power station have been constructed at Port Safaga. Grant funds paid for consulting engineering services and construction and procurement services to erect the complex and power station. The U.S. consultants were Black and Veatch International and K&M and the U.S. construction contractors are Harbert-Howard Co. (HHC) and Encorp. The Government of Egypt (GOE) has financed all local currency costs and has contributed land, channel and harbor improvements, quay extension, utilities and a 160-kilometer (km) rail link between Safaga and Qena. The Egyptian implementing agency is the Ministry of Supply (MOS).

Current Status: Completed
Duration: FY 82 - FY 91
Total Project Funding: \$71.3 Million

Project Accomplishments:

- Construction of a 100,000 metric ton grain silo was completed.
- A two-year operations and maintenance training course for 30 silo staff was completed.
- The 160 km of railway linking Qena and Safaga is complete.
- A nine MW diesel power station was completed supplying, electric energy to operate the silo.

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

B. Developing Productivity

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

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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) operational, maintenance and planning capabilities.

Description: The project supports (1) a country-wide structural replacement program for the irrigation system; (2) developing a major training program and a country-wide preventive maintenance program; (3) providing technical and financial assistance for the existing Regional Irrigation Improvement Project (RIIP) and the Water Research Center (WRC); (4) installing (a telemetry system) to monitor the Nile River and major canal flows; (5) developing a major training program and constructing training facilities; (6) developing computer models for the irrigation distribution system; and (7) preparing detailed topographic maps and aerial photography of the irrigated lands of Egypt. The Egyptian 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>	\$275.0 Million

Implementation Progress

- Eight technical assistance contracts, a grant to Food and Agriculture Organization (FAO) and three Participating Agency Service Agreements (PASAs) are now in place to assist in project implementation and to aid in implementing a \$81 million commodity procurement program.
- Over 14,000 obsolete irrigation structures have been replaced. In addition to a significant reduction in water use, the new structures are benefiting some two million farmers through more equitable water distribution and reduction in waterlogging.
- Over 400 water users associations have been formed and are now directly involved in the planning and design of irrigation system improvements and renovations.
- A successful preventive maintenance program in Gharbia Governorate is now being replicated in five other governorates.
- Aerial photography and ground surveys are now underway. This work will culminate in the production of topographic, orthophoto and cadastral maps needed for effective planning and management of Egypt's water and related land resources.
- Training programs have been given to more than 5,800 MPWWR engineers and technicians. In addition, 90 MPWWR employees are enrolled in graduate degree programs and U.S. universities.

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

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 five priority areas to be focused on are agricultural research, policy reform or analysis, 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 contractor is the Consortium for International Development (CID) for the research, seed and technology transfer components and Chemonics for policy analysis. 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
<u>Duration:</u>	FY 85 - FY 94
<u>Approved Total Funding:</u>	\$300 Million
<u>Funding to Date</u>	\$100 Million

Implementation Progress:

- Fifteen collaborative research proposals are now underway, seven of which are on integrated pest management, which has been given the highest priority due to significant yearly losses caused by pests on major crops.
- Subject matter specialists have trained 800 technology transfer specialists at the district level and 12,000 village extension workers (VEWs) in hands-on training.
- Over 2,000 on-farm field trials are conducted each year in farmers' fields throughout 19 governorates.
- An 80 to 85 percent cure rate for mastitis in milking cows resulted from interdisciplinary research.
- About 235,000 research training days resulted in the following: a program to overcome the problem of Tomato Yellow Leaf Curl Virus, which caused the loss of 70,000 feddans of tomatoes in 1989; a machine that can thresh all of the popular cereal crops grown in Egypt and also make a fodder straw; a 45 percent increase in lamb production; and an increase in market weight.

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

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: 1) The capital component of \$250 million is to be transferred by installments 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; 2) The capacity building component, \$33 million, provides technical assistance, training, equipment and services for the PBDAC. Concepts tested under the pilot Small Farmer Production project will be extended 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. The Egyptian implementing agency is the PBDAC under the guidance of the Ministry of Agriculture and Land Reclamation (MALR).

<u>Current Status:</u>	Active
<u>Duration:</u>	FY 86 - FY 95
<u>Approved Total Funding:</u>	\$283 Million
<u>Funding to Date</u>	\$148 Million

Implementation Progress:

- Major policy accomplishments during 1986-1990 include the cancellation of mandatory low-priced government procurement of 10 crops, elimination of subsidies for imported corn and initial reductions in subsidies for fertilizer and other inputs. After mutual agreement that satisfactory progress had been made toward the agreed upon targets, USAID disbursed \$100 million in three tranches in July 1987, July 1988 and November 1989.
- Nearly 380 village banks are participating in the distribution of unsubsidized loans to small farmers. Nearly 1.5 million farmers have received loans of up to LE 10,000 at market rates.
- Over 11,300 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 place.

Implementing Office: Office of Agriculture Credit and Economics, Ext. 3207.

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

Project 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), extension 3206.

PVC PIPE DRAINAGE
(263-0019)

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

Description: This completed 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 agency was the Egyptian Public Authority for Drainage Projects, the U.S. consultant was SIV Engineers and the U.S. suppliers were Cincinnati Milacron and B.F. Goodrich.

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

Project 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 completed 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 agency 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
<u>Duration:</u>	FY 77 - FY 87
<u>Total Project Funding:</u>	\$20.9 Million

Project 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 toward 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 one 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 completed 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 that had demonstrated the ability to carry out effective agricultural mechanization programs. The Egyptian implementing agency 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
<u>Duration:</u>	FY 79 - FY 87
<u>Total Project Funding:</u>	\$37.6 Million

Project 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 completed 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 agency. 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
<u>Duration:</u>	FY 77 - FY 84
<u>Total Project Funding:</u>	\$30.0 Million

Project 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 completed 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 agency was the Ministry of Public Works and Water Resources (MPWWR). Patterson Pump Company (PPC) supplied and installed the pumps.

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

Project 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 put all pump stations into operation.

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 completed 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 agency was the MALR.

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

Project 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 cucurbits 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 completed 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 agency, the MALR.

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

Project 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, are replacing small village flocks and raising 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 agency was the Ministry of Agriculture and Land Reclamation (MALR). Transcentury Corp. provided procurement services to the MALR.

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

Project 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 completed 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 agency was the MALR.

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

Project 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, soils 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 agency was the PBDAC.

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

Project 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: a) unifying the credit delivery system on a district basis; b) improving the bank's management information and accounting systems; c) incorporating a farm management program; d) upgrading the training program at the governorate level; e) broadening lending policies and procedures; and f) 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: (a) To increase the efficiency and effectiveness of Egyptian agricultural marketing cooperatives; (b) to provide sufficient capital for production credit to stimulate a 30 percent increase in fruit and vegetable production; and (c) 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 completed 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. (CLUA). The primary Egyptian implementing agency 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

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

Description: This completed 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 agency was the MALR.

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

Project Accomplishments:

- The project exceeded its target in terms of the numbers of appropriate technology sub-projects it sponsored. Fifty-two sub-project 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 completed project financed and established the Agricultural Management Development Center. The project expanded training programs developed under an earlier pilot project, financed by USAID, designed to improve management skills of over 3,000 middle-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 at the Barrage area 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 agency was the MALR.

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

Project 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)

6

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 agency, the MALR.

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

Project 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.

INDUSTRY

Sector profile

The Government of Egypt (GOE) regards industry as a key sector in generating new jobs for the rapidly expanding labor force and in 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.

Reasons for optimism include: proposed agreement with the IMF on exchange rate and interest rate policies; agreement with the World Bank about decontrolling prices, reducing public sector subsidies and opening the economy to the private sector; and the current five-year plan that targets new private sector investment at LE 18 billion (\$6.5 billion), or 50 percent of total planned investment.—Also, privatization has become a new theme for public planners as a means to increase productivity.

In industry and commerce, USAID projects are designed to promote the role of the private sector, including small and micro enterprise, by providing: encouragement for the liberalization of GOE policies to improve the business climate; support for private sector advocacy groups; market and technology access; credit guarantee mechanisms for credit access; systems to access foreign exchange term credit; and broad liberalization of the financial markets to permit the mobilization of private savings for productive investment. 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.

Current USAID projects in the industrial sector are focused on improving the business climate and supporting private sector investor services. Participant training programs will improve management and support for basic education will encourage long-term investment in the labor force.

PRIVATE INVESTMENT ENCOURAGEMENT (PIE) FUND
(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 agency is the Ministry of International Cooperation.

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

Implementation Progress:

- 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 that 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 CIP Component of the PIE Fund is comprised of \$15.2 million in obligated funds, of which \$14.57 million has been allocated in 17 CIP transactions through two participating banks.
- 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 (TI/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 agency is the General Organization for Industrialization (GOFI).

<u>Current Status:</u>	Active
<u>Duration:</u>	FY 78 - FY 92
<u>Approved Total Funding:</u>	\$130 Million
<u>Funding to Date:</u>	\$130 Million

Implementation Progress:

- A total of \$130 million has been provided to public sector firms through GOFI in support of subprojects aimed at rehabilitating, modernizing and expanding these firms. Some examples include:
 - 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.
 - 0101.06 - Sinai Manganese Co. Construction of a 300,000 ton/year calcinated gypsum plant is complete and was commissioned in Oct. 1989.
 - 0101.07 - National Metal Industries Co. Installation of two 35 ton/hour electric arc furnaces and a continuous casting facility to raise steel billet output to 160,000 ton/year is now in operation.
 - 0101.10 - Industrial Pollution Control. Improvements in pollution control have been carried out at five industrial companies under the project.

Implementing Office: Office of Engineering (DR/ENG), extension 3316.

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 agency is USIPO.

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

Implementation Progress:

- 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, which increased investment promotion activities in the U.S. and provided better support services to U.S. investors visiting Egypt.
- The revised strategy has resulted in the identification of some 110 projects for joint venture promotion. Prospectuses have been completed for 39 projects. Some 35 reconnaissance visits have been completed, 40 feasibility studies have been finalized and five are in process. To date, six joint ventures have come on stream and two 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.

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 two credit components:

- \$650 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 LE 60 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 agencies are the Ministry of International Cooperation (MIC) and the recently-organized Banking Credit Guarantee Corp. (CGC).

<u>Current Status:</u>	Active
<u>Duration:</u>	FY 86 - FY 93
<u>Approved Total Funding:</u>	\$658 Million
<u>Funding to Date:</u>	\$658 Million

Implementation Progress:

- Implementation progress of the Private Sector Commodity Import Program (263-0201.01) is presented in section I.B. of this report.
- Nine Egyptian banks and one insurance company have formed the Credit Guarantee Corporation and have paid L.E. 200,000 each to establish the SSE fund. MIC will provide the corporation with a L.E. 60 million soft loan. The first tranche of LE 20 million has been delivered. Loans will be in the range L.E. 25,000 to L.E. 750,000 and the CGC will guarantee up to 50 percent of the loan principal.

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

SMALL AND MICRO ENTERPRISES
(263-0212)

Purpose: To increase employment and profitability among small (six to 15 employees) and micro (one to five employees) enterprises in Cairo and Alexandria.

Description: The project provides credit and technical assistance to two private foundations that are 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 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. NCEA/Environmental Quality International is providing technical assistance to the project. The primary Egyptian implementing agencies are the Alexandria Businessmen's Association and the Egyptian Small Enterprise Development Foundation in Cairo.

<u>Current Status:</u>	Active
<u>Duration:</u>	FY 88 - FY 95
<u>Approved Funding to Date</u>	\$20.0 Million
<u>Funding to Date:</u>	\$15.0 Million

Implementation Progress:

- Both foundations are officially registered and executive directors appointed. Staff is trained and hired. Both foundations have received initial funding from USAID. Lending began in Alexandria in January; and began in November 1990, in Cairo.
- Automated MIS is designed and installed.

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

MEHALLA TEXTILE PLANT REHABILITATION
(263-0010)

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

Description: This completed 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 agency was the Misr Spinning and Weaving Company.

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

Project 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, Allentown, 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
<u>Duration:</u>	FY 76 - FY 88
<u>Total Project Funding:</u>	\$104.6 Million

Project Accomplishments:

- Construction of the plant was completed in September 1983, and performance guaranty testing started in May 1984. Since 1987, the plant has steadily increased its production, achieving 102 percent of production capacity in 1989. Plans are underway to introduce export-oriented special cement types, e.g., rapid hardening, special super fine, sulphate resistant cement.
- Sizeable profits have been earned, with the Suez Cement Company under (Law 43) paying dividends of 20 percent in 1989 and 25 percent in 1990.
- Suez Cement Company is undertaking a divestiture plan to increase its private ownership.

Implementing Office: Office of Finance and Investment (II/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 completed 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 agency was the DIB.

Current Status: Completed " " "
Duration: FY 76 - FY 84
Total Project Funding: \$30.2 Million

Project 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 completed 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 agency was DIB.

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

Project Accomplishments:

- This project was slow in starting due to a reorganization of the DIB, which had to be completed prior to project start-up.
- Emphasis of the project was on computerization to improve loan processing, monitoring and internal operations and administration.
- A computer system was installed with the assistance of Price Waterhouse, Inc.
- The project was completed in February 1986.

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 agencies were the Suez Cement Company (SCC) and the Egyptian Electricity Authority (EEA).

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

Project Accomplishments:

- Construction of the plant was completed in September 1986, and performance guaranty testing started in May 1987. Since 1987, the plant has steadily increased its production, now functioning at near-capacity. Plans are underway to introduce export-oriented special cement types, e.g., rapid hardening, special super fine, sulphate resistant cement.
- Sizeable profits have been earned, with the Suez Cement Company under (Law 43) paying dividends of 20 percent in 1989 and 25 percent in 1990.
- Suez Cement Company is undertaking a divestiture plan to increase its private ownership.

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 completed project finances 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 primary Egyptian implementing agency was El Nasr Salines Company. The U.S. contractors were STV Engineering and Foster Wheeler, Inc.

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

Project 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 (FI/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)

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

Project 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 completed 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.

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

Project 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).

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

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

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

Project Accomplishments:

The Egyptian Federation of Industries received support for the following activities:

- A study on the potential role of and strategy for private sector suppliers to the ready-made garment industry.
- 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.
- Technical assistance in the design and testing of a prototype modest size clay brick factory.
- 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.

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 agency was GAFI.

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

Project Accomplishments:

- Implementation of capital market activities, including technical assistance, commodities procurement and a training program, is complete.
- 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.

SCIENCE AND TECHNOLOGY

Sector profile

Egypt has a sizeable and well-trained Science and Technology (S&T) community. Most research and development (R&D) activities take place in Egypt's more than 260 public sector research institutes. A sizeable commitment to S&T is also evident in Egypt's 12 public universities. However, linkages between Egypt's S&T community and the R&D needs of productive enterprises in both public and private sectors are still relatively undeveloped. Within the S&T community there are also gaps in expertise and a bias toward basic or fundamental, as opposed to applied, research. Despite examples of institutional excellence and individual research achievements, Egypt's S&T community does not yet fulfill its potential contribution to national economic development. With structural economic reform and the evolution of a new set of price incentives, however, producers should begin to demand more productive technologies.

Over the past ten years, support for science and technology in meeting Egypt's needs in industry, energy, agriculture, health and infrastructure development has been growing. The GOE formulated a national science and technology policy, and has provided initial funding for portions of the Academy of Scientific Research and Technology's (ASRT) five-year plan for S&T. The United States is a world leader in scientific and technological fields, and Egypt is eager to accept U.S. scientific advice and to adopt American technologies. However, the GOE gives high priority to short-term direct investments in productive capacity and infrastructure. USAID S&T projects seek to highlight the utility of longer term indirect investments in productivity through building S&T capabilities.

Current S&T capabilities need to be focused on key national development problems. Research and development efforts must be based on end-use goals and needs. Coordination among the most seasoned Egyptian research groups should be increased; and they should give greater attention to key S&T areas such as energy conservation, efficiency and productivity.

USAID continues to encourage the GOE to undertake structural economic reform so that price signals will encourage producers to demand more productive technologies. Current projects emphasize resolving a limited number of development problems that meet important and well-defined end-user needs. This provides a framework that is development-oriented, rather than driven by narrow scientific disciplinary interests. End-users identify needs, design and manage projects and, eventually, will finance S&T efforts to fill those needs.

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, audits, 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. American contractors currently involved in project activities include Stone and Webster (power plant feasibility study), U.S. Department of Health and Human Services (bio-medical research and development activities) and CH2M - Hill (water treatment/distribution facility). The primary implementing agency 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
<u>Duration:</u>	FY 83 - FY 94
<u>Approved Total Funding:</u>	\$50.0 Million
<u>Funding to Date:</u>	\$45.0 Million

Implementation Progress:

- More than 110 activities have been financed with project funds. Eighty activities are already completed. Typical activities include:
 - A major engineering study to upgrade north Cairo's water distribution system.
 - A feasibility study for a 1,200 megawatt El Kureimat power plant.
 - A feasibility study on the Cairo - Assiut highway.
 - A feasibility study on fertilizer marketing and distribution.
 - A special assessment on the impact of selected USAID projects on women.
 - A seismic stability assessment of the Aswan High and Low Dams (split-funded with project 263-0042).
 - A Joint Health Working Group program of 20 bio-medical research and development activities.
 - Technical Assistance to establish standard policies and procedures for privatization through Partnership in Development activity.

- PVO activities include: Fisheries development at the Aswan High Dam - CARE, institutionalization of the Assiut Nursing Institute - HOPE, increasing overall efficiency of Egyptian farms - ACDI, and the continuing activities of the International Executive Service Corps described under the Business Support and Investment project (263-0159).

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

UNIVERSITY LINKAGES
(263-0118)

Purpose: To mobilize and supplement the applied research activities of Egyptian university professors by financing their efforts to solve priority Egyptian development problems under subprojects carried out jointly by Egyptian and American universities.

Description: The project helps Egypt improve its applied research capacity and to use the research and analysis skills of key contributors in the development process. This provides a practical base for capacity-building and supports proposed and ongoing problem-solving needs, while at the same time improves critical research and analysis skills areas. Assistance is provided in establishing linkages between Egyptian and U.S. institutions and researchers. The Foreign Relations Coordination Unit (FRCU) of the Egyptian Supreme Council of Universities acts as the central disbursement agency and program manager for the research subprojects supported by this project.

<u>Current Status:</u>	Active
<u>Duration:</u>	FY 80 - FY 93
<u>Approved Total Funding:</u>	\$27.5 Million
<u>Funding to Date:</u>	\$27.5 Million

Implementation Progress:

- A total of 400 joint research ventures, or "linkages," between Egyptian universities and U.S. universities have been funded. These include direct problem-solving activities, as well as capacity-building grants for applied research. More than 350 are complete. The linkages also included five "maxi-linkages," involving broad multi-disciplinary applied research activities between Egyptian and U.S. universities. The maxi-linkages have been in the areas of desert development, sugar beets, liver diseases, citrus seedlings and energy.
- The project has involved 2,400 faculty members from 11 Egyptian universities, 270 U.S. counterparts and 300 end-user participants.
- Many of the joint research projects have contributed to considerable savings in industrial processes. In the priority area of industry, promised annual savings are of the magnitude of \$2.3 million. A linkage investigating the Suez oil refineries has resulted in annual savings of \$600,000. Another linkage involving the Cairo Power Generation Stations promises a 30 percent savings in operating costs. Linkage with the food production area has produced a new cattle fodder, certified by the Ministry of Agriculture and Land Reclamation, that will bring about savings of over LE 100 million a year.

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

ENERGY POLICY PLANNING
(263-0123.01)

Purpose: To strengthen the GOE's institutional capability to undertake national energy planning and policymaking.

Description: The project is transferring 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 is the Organization for Energy Planning (OEP), which is associated with the Ministry of Petroleum.

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

Implementation Progress:

- OEP and Meta Systems, the technical assistance contractor, have trained over 300 Egyptian energy experts in 13 in-depth week-long seminars covering such fields as policy analysis, electricity pricing, cogeneration, boilers; and energy efficiency in transportation, agriculture, buildings and appliances. Furthermore, over 2,700 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 has "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 Science and Technology (HRDC/ST), ext. 3277

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 photovoltaics) that can be readily used by public and private sector enterprises in Egypt; 2) to improve the capabilities of the public and private sectors to analyze and evaluate renewable energy technologies and to design, install, operate and maintain the systems; and 3) to conduct a series of field tests to demonstrate in Egypt commercially available technologies. The prime technical assistance contractor is 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
<u>Duration:</u>	FY 82 - FY 91
<u>Approved Total Funding:</u>	\$24.1 Million
<u>Funding to Date:</u>	\$13.0 Million

Implementation Progress:

- IDEA has 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.
- Wincon 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 recently completed a prefeasibility study for construction of large scale wind power plants along the Red Sea.

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

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, land use, energy and industrial productivity. It emphasizes development problem-solving techniques to meet end-user needs. The primary Egyptian implementing agency is the Academy of Scientific Research and Technology (ASRT).

<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>	\$ 60.0 Million

Implementation Progress:

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.
- 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 Science and Technology (HRDC/ST), extension 3277.

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 40 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 governorates and regions of Egypt.
- The Advanced Technology Program (ATP), for advanced applications in biotechnology and computer-based technology.

The Egyptian primary implementing agency is the Academy of Scientific Research and Technology.

<u>Status:</u>	Active
<u>Duration:</u>	FY 87 - FY 96
<u>Approved Total Funding:</u>	\$36.0 Million
<u>Funding to Date:</u>	\$ 9.4 Million

Implementing Progress:

- The project has completed background studies and statements of work for 22 end-user identified problems in the following areas: industrial minerals and chemicals, construction materials, small-scale industries, water and wastewater treatment, lake ecosystems, biotechnology and computer applications. The U.S. contractor, IDEA is providing technical and management assistance.
- Egyptian researchers already have signed 12 research contracts and are addressing specific end-user identified research problems. American Manufacturers Export Group 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 Science and Technology (HRDC/ST), extension 3277.

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 funds research in pre-defined, 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 agency is the Ministry of Health (MOH).

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

Implementation Progress:

- 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 32 project research grants, including eight grants to outstanding young Egyptian schistosomiasis researchers.
- Lowell University and the GOE Theodore Bilharz Research Institute have established a laboratory facility to provide grantees with the biological materials needed for their research.
- World-class scientists attending the project's first annual technical seminar 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 Science and Technology (HRDC/ST), extension 3277.

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. To improve the capabilities of Egyptian institutions in promoting and implementing energy-saving and productivity-enhancing investments.

Description: The project funds 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 Tebbin Institute of Metallurgy (TIM) and the Federation of Egyptian Industries (FEI) will undergo training. The primary Egyptian implementing agencies are DRTPC, TIM and FEI.

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

Implementation Progress:

- DRTPC and TIMS, with management and technical assistance from Overseas Bechtel and RCG/Hagler Bailly, have prepared 20 feasibility studies and signed contracts for eight technology applications, four each in private and public sectors.
- The Ramsis Hilton hotel is installing an energy management system that will reduce lighting, air-conditioning and water heating costs by up to 20 percent.
- Asfour Glass Company followed a project consultant recommendation to repair the main glass melting furnace and, as a result, is now saving energy worth about \$42,000 per year.
- Over 80 private sector companies have expressed formal interest in the project and over 400 Egyptians have attended energy conservation workshops.

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

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 modern manpower planning and development systems to the Egyptian General Petroleum Corporation (EGPC), the Egyptian Electricity Authority (EEA) and the Electrical Distribution Authority (EDA).

The primary Egyptian implementing agencies 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

Implementing Progress:

- Technical assistance contractors, International Human Resources Development Corporation (IHRDC) and Institute of International Education (IIE), have prepared manpower development master plans for EGPC, EEA and EDA.
- The project has trained 13 Egyptian instructors in the U.S. and over 250 in 10 training courses in Egypt taught jointly by IHRDC and Egyptian instructors.

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

TECHNICAL AND FEASIBILITY STUDIES I, II, & III & IV
(263-0003, 263-0013, 263-0025 & 263-0042)

Purpose: To help the Egyptian government identify, develop, test and execute priority development activities and make appropriate investment decisions to meet long-term development needs.

Description: These completed projects provided grant funds for technical and feasibility studies that assisted in the identification and development of specific projects for USAID financing. Funds were also used for evaluation studies, sector assessments, preproject design work and technical assistance and to support selected Private Voluntary Organization (PVO) activities. The primary implementing agent for this program was the Ministry of International Cooperation (MIC), with the participation of other technical ministries.

Current Status: Completed

<u>No.</u>	<u>Title</u>	<u>Total Project Funding</u>	<u>Duration</u>
263-0003:	Technical and Feasibility Studies I	\$.9 Million	FY 75-78
263-0013:	Technical and Feasibility Studies II	\$14.6 Million	FY 76-78
263-0025:	Technical and Feasibility Studies III	\$17.8 Million	FY 77-82
263-0042:	Technology Transfer and Feasibility Studies IV	<u>\$27.0 Million</u>	FY 78-86
	TOTAL	<u>\$60.3 Million</u>	

Projects Accomplishments:

These projects financed the dollar costs of project design and preproject activities related to a large number of USAID-financed projects, particularly infrastructure and industrial sectors. Examples are:

- Feasibility and project studies: \$35 million Grain, Tallow, Oils, and Fats Storage and Distribution project (263-0037); \$29.7 million Mineral, Petroleum and Groundwater Assessment project (263-0105); \$49 million Small Farmer Production project (263-0079); \$94.7 million Quattamia Cement Plant project (263-0052); and \$140 million Aswan High Dam Rehabilitation project (263-0160).
- A sector study for the \$242 million telecommunications program (Phases I, II and III).
- A master plan for the \$262.3 million Alexandria Wastewater project.
- An environmental study for two power projects that were later financed by USAID, the Ismailia Steam Power Plant (\$250 million) and the Helwan and Talkha Gas Turbines (\$67.3 million).

The four projects also have financed PVO activities in income generation, health care and rural development. U.S. PVOs include CARE, Catholic Relief Services, HOPE and Save the Children.

Technical assistance activities financed by these projects include installation of medical equipment at Al Azhar University hospital and an automated information system at the Arab Maritime Academy.

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

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: The program improved 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 access to information, availability of maintenance and repair expertise for research equipment and 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 agency was the Academy of Scientific Research and Technology (ASRT).

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

Project Accomplishments:

- The NAS assisted ASRT with S&T policy studies that culminated in a draft technology policy for Egypt. NAS also provided consulting services and on-the-job training in R&D management.
- The NIH and the University of Wisconsin established an instrumentation technology unit in the Scientific Instrumentation Center at the National Research Center in Cairo. The project also established maintenance and repair centers at eight universities in Egypt.
- The Georgia Institute of Technology established S&T information centers at 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 Science and Technology (HRDC/ST), extension 3277.

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 agencies were the DRTPC and CU.

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

Project 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 governorates, 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), extension 3262.

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

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

Project 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.

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

Project Accomplishments:

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

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

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 well-managed, high-quality family planning services. The projects support services delivered by both public and private sector organizations.

In education, USAID resources continue to finance construction of rural, primary schools and to underwrite extensive training programs to meet Egypt's requirements for professionally qualified personnel.

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POPULATION SECTOR PROFILE

Egypt is hard-pressed to expand services and employment opportunities fast enough to keep pace with its rapid population growth. The population, now at 55 million people, has more than doubled in the past 30 years, and at the current growth rate will double again in another 25 years.

USAID, the largest single donor to Egypt's population program, accounts for about 75 percent of all donor assistance. Since USAID assistance began, contraceptive use by married couples has increased modestly (from 26 percent in 1974/75 to 38 percent in 1988) and total fertility (average number of births per mother) has declined. Even so, during the same period the population growth rate rose from 2.4 percent to 3.0 percent because of the recent remarkable achievements in reducing infant mortality.

Initially, many Egyptian leaders believed that economic development, rather than family planning programs, would solve Egypt's population growth problems. As a result, GOE investment in family planning services has been inadequate. In recent years, however, President Mubarak has elevated the program's priority by creating a National Population Council (NPC), and has spoken strongly in support of the need for family planning. The NPC has been given a central management role, with responsibility for policy, planning and coordination, while the Ministry of Health and Ministry of Social Affairs, through nongovernment organizations, implement programs.

USAID's population/family planning assistance aims at increasing contraceptive use by expanding and improving the quality of family planning services through a wide range of organizations, both governmental and private sector. For example, in the public sector, USAID supports four service delivery organizations including the Ministry of Health, Teaching Hospital Organization, Health Insurance Organization and Cairo Health Organization, to provide family planning services in 21 governorates. In the non-government sector USAID supports the expansion of fee-for-service family planning through the Clinical Services Improvement project in 18 governorates, as well as through the Egyptian Junior Medical Doctors Association and several smaller non-government organizations, such as the Bishopric for Public Ecumenical and Social Services. The USAID-financed Family of the Future program provides retail sales of contraceptive commodities through 7,500 pharmacies and most private physicians all over the country.

USAID also provides assistance to the National Population Council in strengthening its institutional development and in improving its role in policy and planning and to the national statistical organization to improve its demographic measurement and predictive capabilities. USAID helps the government's information services to broadcast prime time messages on child spacing and family planning through the mass media. This program has increased awareness of the need for family planning services, as well as specific contraceptive methods, through television and radio, printed materials and the endorsement of religious and village opinion leaders.

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 agencies 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 nongovernment 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 and expansion of activities initiated under the previous Family Planning project (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>	\$ 96.0 Million

Implementation Progress:

- In January 1985, President Mubarak created the National Population Council (NPC) to coordinate all population/family planning activities. A draft Population Policy, which will serve as the basis of the 1992-1997 Five Year Plan, has been prepared by NPC and is awaiting review by the People's Assembly.
- 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.
- About 3,000 MOH clinics in 21 governorates are in various stages of upgrade and staff has been trained to provide quality family planning services.
- The EFPA's Clinical Services Improvement Project is expanding high-quality fee-for-service family planning services in 18 governorates. As of September 1990, 73 clinics have been opened in 17 governorates.
- 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./NESR 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
<u>Duration</u>	FY 75 - FY 77
<u>Total Project Funding:</u>	\$130 Thousand

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

Project 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.
- Thirty-eight 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 are a serious problem in Egypt, reducing productivity, depressing the quality of life and, ultimately, reducing life expectancy. Debilitating parasitic (schistosomiasis), bacterial (typhoid, trachoma, TB) and viral (hepatitis) diseases are endemic among the adult population. Waterborne gastrointestinal diseases strike all age groups. Prior to the current national rehydration program, 50 percent of all deaths were in children under age five, and half of those were due to diarrhea. Acute respiratory infections are the second greatest cause of death in children. Schistosomiasis is the leading cause of morbidity for all age groups. While malnutrition has been greatly reduced through the Government of Egypt's (GOE) policy of subsidies on basic foodstuffs, there is still significant malnutrition among mothers and children due to iron deficiency, poor weaning practices and intestinal disease.

The GOE 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 almost all Egyptians access to some sort of health care. The ratio of doctors to population is among the best in the developing world. But the quality of the public health care system is considered poor, especially in the primary care clinics, and as a result, public health facilities are underutilized. The GOE has acknowledged that its health services must be improved and is moving to bring about 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 shift certain government health programs to the private sector. In the current five-year health plan (1987-1992), the GOE emphasizes the importance of preventive health programs and states its intention to more aggressively implement programs in diarrheal disease control, immunization and other interventions that combat major childhood diseases. USAID's projects in this sector encourage increased attention on preventive care, including oral rehydration therapy, immunizations, treatment of acute respiratory infections, child nutrition and child spacing.

Since the National Control of Diarrheal Disease project began in 1981, significant progress has been made in reducing child mortality from diarrheal disease. A major contributing factor to this reduction has been the education of Egyptian mothers in the use of ORT through television messages. In 1986, over 96 percent of the 4.5 million mothers of children under three years of age reported knowing about the benefits of ORT and 70 percent reported using it when needed. In 1983, before the media campaign, less than three percent of mothers knew about ORT or had used it. The campaign has been especially effective in reaching illiterate women and those in rural areas. The project succeeded by going directly to mothers with a basic health message.

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

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 trains public and private sector health personnel in rehydration therapy, establishes rehydration centers in all governorate health centers and hospitals, produces and distributes rehydration materials and promotes the use of rehydration through a mass media campaign. The contractor is the John Snow Public Health Group, Inc. The Egyptian implementing agency is the Ministry of Health (MOH).

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

Implementation Progress:

- The project achieved its purposes by 1987, but due to its phenomenal success has been extended by three years in order to institutionalize Oral Rehydration Therapy (ORT) in the MOH services.
- A national ORT campaign is now in its sixth year. ORT clinics have been established in 85 percent of the 3,000 MOH clinics nationwide, and all MOH clinics have stocks of Oral Rehydration Salts (ORS). ORT training is being carried out in 30 teaching hospitals nationwide, and 30,000 physicians and nurses have received training.
- The ORT campaign is supported by television commercials shown daily on national television.
- ORS is being produced by a public sector firm in Egypt. Production increased from five million sachets in 1983 to 75 million sachets in 1986. ORS is available in 98 percent of Egyptian pharmacies.
- Johns Hopkins/American University in Cairo is conducting a study on the project's impact on diarrhea mortality in Menoufiya governorate.
- Studies have found impressive levels of knowledge and use of ORT among mothers. About 98 percent of mothers are aware of ORT, 96 percent can mix ORS correctly and 51 percent used ORS during the last episode of diarrhea.
- The technical and administrative institutionalization of the project is proceeding well. USAID and MOH are working together to make the project financially more sustainable prior to the project assistance completion date (PACD) of September 30, 1991.

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

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 concentrates on three areas:

- Implementation of policy changes will allow a fee structure for curative care and provide greater financial autonomy to curative care facilities, and will finance needed physical renovations to convert selected hospitals and clinics to fees-for-service facilities. The implementing agency is the Ministry of Health.
- Two health insurance systems currently operating in Cairo and Alexandria on a cost-recovery basis, will improve management techniques to increase their financial viability and expand their 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 by providing credit guarantees for establishment of individual rural medical practices, developing prepaid group practices and improving management capabilities of private physicians. The implementing agency is the Credit Guarantee Corporation.

Abt Associates, Inc., through an AID/Washington buy-in, and Cambridge Consulting Corporation, an 8(A) firm, are providing technical assistance to components one and two of the project.

<u>Current Status:</u>	Active
<u>Duration:</u>	FY 88 - FY 96
<u>Approved Total Funding:</u>	\$95.0 Million
<u>Funding to Date:</u>	\$20.0 Million

Implementation Progress:

- Newly developed management standards will be tested in three to five MOH hospitals scheduled in FY 1991 for cost recovery activities.
- To expand coverage, both HIO and CCO will have new contractors in FY 1991 to develop new management information systems (MIS).
- Up to 35 banks have expressed interest in becoming part of the program to provide credit for the development of private health care practitioners. During FY 1991 the first tranche to a Credit Guarantee Fund will occur.

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 completed 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 agency 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

Project 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 (IRDC/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 completed 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 agency was the Ministry of Social Affairs.

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

Project 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: Program Office (FDS/P) extension 3216.

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 agencies were the Ministry of Health (MOH), Cairo University (CU) and the Health Insurance Organization (HIO).

<u>Current Status:</u>	Completed
<u>Duration:</u>	FY 79 - FY 89
<u>Total Project Funding:</u>	\$43.1 Million

Project 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 videotapes 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 MCH clinics in Cairo and 11 MCH clinics in Alexandria were completed. Construction of eight new GUHC clinics in Cairo 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 AND TRAINING

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 \$425 million for 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 1,500 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 9,500 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.
- English Language Testing and Training provides uniform testing and training for AID-funded participants, through a direct AID contract.
- Institutional Upgrading seeks to improve the capacity of selected institutions to provide management training and development services.
- 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
<u>Duration:</u>	FY 85 - FY 95
<u>Approved Total Funding:</u>	\$109.0 Million
<u>Funding to Date:</u>	\$ 47.0 Million

Implementation Progress:

- Over 600 Peace Fellows have begun training in the U.S. Another 400 Egyptians from public and private sectors have attended short-term programs in the U.S. under the Non-Project Training component.
- USAID signed a four-year Cooperative Agreement with the Fulbright Commission to implement pre-service and in-service teacher training.
- The Management Development Center for Industry has been renovated and equipped, and staff has been trained.
- A three-year Cooperative Agreement with the African-American Labor Center provides for labor leadership exchange, technical assistance and trade-union technical training.

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

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 1,500 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.
- Teams of Egyptian and American technical advisors have produced studies to assist the Ministry of Education in educational planning and management. Specific recommendations have also been made for improvements in the curriculum and teacher training and for reducing the number of dropouts and repeaters. A microcomputer-based planning and monitoring model has also been produced for use by Ministry officials in Cairo and in regional offices. Studies have been completed on in-service teacher training, education for the handicapped and organization of the Ministry.
- A total of 14,000 teachers and inspectors have now been trained in the use and maintenance of USAID-donated school equipment.
- The first product of the Curriculum Center, Integrated Environmental Studies for grades 1-3, began field testing in October, 1990.

Implementing Office: Office of Education and Training (HRDC/ET), extension 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) excise; 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 agency is the Ministry of Finance (MOF).

<u>Current Status:</u>	Active
<u>Duration:</u>	FY 88 - FY 94
<u>Approved Total Funding:</u>	\$16.2 Million
<u>Funding to Date:</u>	\$10.2 Million

Implementation Progress:

- During the first year of active implementation, the seven resident advisors, together with a variety of specialized consultants, have made significant progress in the development of reform proposals scheduled for presentation by June 1991.
- Work on policy changes and procedural improvements for income, excise and customs taxes, is on schedule, as are efforts to computerize key activities of the Egyptian revenue system.
- Design of a new sales tax and development of mechanics for its implementation are well ahead of schedule.

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

Project 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 that could not be funded under USAID's other, more limited, focus developmental projects.

Implementing Office: Office of Education and Training (HRDC/ET), extension 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 agency was the Ministry of International Cooperation (MIC).

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

Project 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.

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 agency was the Productivity Vocational Training Department of the Ministry of Industry.

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

Project 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.

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

Project 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 percent); ministries (20 percent); public companies (12 percent); private firms (10 percent); and research institutions (6 percent). Fields of study include; engineering and applied science (32 percent); health (31 percent); agriculture (11 percent); education and social science (10 percent); business administration (9 percent); architecture (4 percent); and economics (3 percent).
- 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.

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 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 agency and a U.S. service company, RCA.

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

Project 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 were performed by Syracuse University and the U.S. Customs Service. The Egyptian implementing agency was the Ministry of Finance (MOF).

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

Project 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), 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

Project 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 SCU/FOM program in general practice, general practice is now recognized as an area of specialty by the Egyptian Medical Association.
- The project established 11 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.

ANNEX

LIST OF PROJECTS

in Numerical Order

C = Completed

A = Active

- 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.

<u>No.</u>	<u>Title</u>	<u>Office</u>	<u>Status</u>	<u>Page</u>
263-0001	Electric Power Distribution	DR/UAD	C	29
0002	Technology Transfer and Manpower Development I	HRDC/ET	C	120
0003	Technical and Feasibility Studies I	PDS/P	C	99
0004	Suez Canal Clearance Extension	DR/UAD	C	43
0006	Population/Family Planning Research	HRDC/P	C	107
0007	Road Building Equipment - Suez Canal Area	DR/UAD	C	44
0008	Gas Turbine Generators (Talkha-Helwan) (K-032)	DR/UAD	C	30
0009	Ismailia Thermal Power Plant	DR/UAD	C	31
0010	Mehalla Textile Plant Rehabilitation (K-033)	TI/FT	C	78
0011	Technology Transfer and Manpower Development II	HRDC/ET	C	120
0012	Suez Cement Plant	TI/FT	C	79
0013	Technical and Feasibility Studies II	PDS/P	C	99
0014	Alexandria Port Authority (K-031)	DR/UAD	C	45
0015	Strengthening Rural Health Delivery	HRDC/H	C	113
0016	Applied Science and Technology Research	HRDC/ST	C	100
0017	Water Use and Management	AGR/ILD	C	57
0018	Development Industrial Bank I (K-035)	TI/FT	C	80
0019	FVC Pipe Drainage (K-034)	DR/UAD	C	58
0020	Integrated Social Work Centers	PDS/P	C	114
0021	Development Decentralization I (see 0161.1)	DR/LAD	C	38
0023	National Energy Control Center (K-037)	DR/UAD	C	32
0025	Technical & Feasibility Studies III	PDS/P	C	99
0026	Technology Transfer and Manpower Development III	HRDC/ET	C	121
0027	Rice Research and Training	AGR/A	C	59
0028	Grain Silos Storage (K-028)	DR/UAD	C	46
0029	Family Planning	HRDC/P	C	108
0030	Shoubra El Kheima Thermal Power Plant	DR/UAD	A	23
0031	Agricultural Mechanization	AGR/A	C	60
0033	Urban Electric Power Distribution Equipment (K043)	DR/UAD	A	24

<u>No.</u>	<u>Title</u>	<u>Office</u>	<u>Status</u>	<u>Page</u>
263-0035	Canal Maintenance (K-040)	DR/UAD	C	61
0037	Grain, Tallow, Oils and Fats (K-041)	DR/UAD	C	47
0038	Cairo Water Supply (K-042)	DR/UAD	C	18
0040	Irrigation Pumping (K-039)	DR/UAD	C	62
0041	Agricultural Development Systems	AGR/A	C	63
0042	Technical and Feasibility Studies IV	PDS/P	C	99
0045	Development Industrial Bank II	TI/FI	C	81
0047	Port of Suez Project (K-049)	DR/UAD	C	48
0048	Canal Cities Water and Sewerage (K-050)	DR/UAD	C	19
0052	Quattamia Cement Plant (K-051)	TI/FI	C	82
0054	Telecommunications I (K-047)	DR/UAD	C	42
0060	Poultry Improvement	AGR/A	C	64
0061	Development Planning Studies	HRDC/ET	C	101
0062	Vocational Training for Productivity (see 0090.02)	HRDC/ET	C	124
0064	Aquaculture Development	AGR/A	C	65
0065	Urban Health Delivery System	HRDC/H	C	115
0066	Low Income Housing and Community Upgrading	DR/UAD	C	49
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0071	Hydrographic Survey for the Suez Canal	DR/UAD	C	50
0072	Port Said Salines Plant	TI/FI	C	83
0075	Telecommunications II	DR/UAD	C	42
0079	Small Farmer Production	AGR/ACE	C	67
0089	Alexandria Sewerage I (K-044)	DR/UAD	C	20
0090	Industrial Productivity Improvement	TI/FI	C	84
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0091	Cairo Sewerage I	DR/UAD	C	21
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0096	Small Scale Agricultural Activities	AGR/A	C	69
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