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**Audit of USAID/Egypt's  
Provincial Cities Development  
Project No. 263-0161**

Audit Report No. 6-263-91-05  
February 28, 1991

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*The project has successfully assisted three Egyptian cities to plan and implement urban infrastructure projects. The work is behind schedule, however, and the project needs to be extended. Additional GOE actions are needed to ensure that the water and wastewater systems can be adequately sustained.*

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**UNITED STATES OF AMERICA  
AGENCY FOR INTERNATIONAL DEVELOPMENT  
OFFICE OF THE REGIONAL INSPECTOR GENERAL/AUDIT**

February 28, 1991

**MEMORANDUM FOR D/USAID/Egypt, Marshall D. Brown**

**FROM :** RIG/A/C, F. A. Kalhammer *F. A. Kalhammer*  
**SUBJECT:** Audit of USAID/Egypt's Provincial Cities Development  
Project No. 263-0161

Ten copies of our audit report No. 6-263-91-05 on the above project have been provided to you and your staff.

We have reviewed your comments on the draft report and considered these in the preparation of the final report. Your comments are included as Appendix II to the report.

The report contains four recommendations. The status of those recommendations at report issuance is as follows: Recommendation No. 1 is closed. Recommendations Nos. 2, 3 and 4 are resolved and can be closed when corrective actions have been completed. Please provide a response to this report within 30 days, indicating what further actions you have taken to address the open recommendations.

I appreciate the courtesies and cooperation extended to my staff during the audit.

## EXECUTIVE SUMMARY

Begun in August 1981 and amended in July 1985, the Provincial Cities Development (PCD) project was designed to assist the Government of Egypt (GOE) to achieve its policy objective of economic and administrative decentralization. In 1985 this goal was revised and the project objectives changed to:

- improve and expand water and wastewater systems in the cities of Fayoum, Beni Suef, and Minia; and
- improve the capacity of the cities to plan, implement and maintain urban infrastructure systems.

To achieve these ends, A.I.D. has authorized \$110 million in life-of-project funding of which \$93.6 million had been committed and \$61.9 million expended as of September 30, 1990. The GOE agreed to provide about 57.4 million Egyptian pounds (\$68 million in 1985).

Between May and October 1990, the Office of the Regional Inspector General for Audit/Cairo made a performance audit of the PCD project in accordance with generally accepted government auditing standards. The objectives, scope and methodology for this audit are described in pages 2, 3, and in Appendix I.

The audit disclosed that the PCD project has successfully assisted the cities of Fayoum, Beni Suef and Minia to plan and implement urban infrastructure projects. The project has also made considerable progress in constructing, rehabilitating and expanding the cities' water and wastewater systems. However, we did note the following:

- Construction tasks and related activities were being completed more slowly than planned. The project is currently about three years behind schedule, as described in the amended project paper (see page 12).
- Contract activities cannot be completed prior to the current project completion date and may have to be significantly reduced unless that

date is extended. The Mission had planned to request a project extension from A.I.D./Washington (see page 15).

- Quarterly implementation status reports to Mission and A.I.D./Washington top management did not accurately reflect the status of the project. While these reports showed contract delays, they did not reflect progress in terms of the project paper's implementation schedule. The report also did not mention inevitable project assistance completion date extensions (see page 15).
- Implementation and completion of 38 small scale water and wastewater projects had been slower than planned. Some of these projects will probably not be completed prior to the project completion date (see page 16).

USAID/Egypt has established a comprehensive and adequate system for monitoring this project which conforms to A.I.D. standards and is generally effective in keeping Mission management informed about potential problems. The management system used for monitoring construction activities is extensive and well coordinated with the GOE implementing organization (see page 18 and Appendix IV).

However, the sustainability of A.I.D.-financed capital investments eventually totalling more than \$83 million has yet to be assured. Participating local authorities had yet to assert their authority to retain and use local revenues in order to be able to operate and maintain water and wastewater facilities financed by the project (see pages 19 and 20).

- The provincial cities operations and maintenance (O&M) capabilities for water and wastewater facilities need strengthening (see page 20).
- The project had also not adequately defined the Mission's program to improve the cities' O&M capabilities (see page 24).

The report contains four recommendations. It also discusses our assessment of internal controls (see page 29), and includes our report on USAID/Egypt's compliance with applicable laws and regulations (see page 33).

A draft of this report was provided to Mission officials for comment. In responding to the draft report, the Mission indicated concurrence with the intent of our recommendations and requested their closure.

In discussing its views of project impact to date, the Mission noted that "pumping stations and wastewater treatment facilities have been rehabilitated; water and wastewater lines have been rehabilitated and installed; water and wastewater treatment plants are more than 60% complete and work is progressing. United States construction and quality control techniques have been used to assure quality products. To assist the cities to maintain the expanded and improved systems, USAID is and will be providing extensive operation and maintenance guidelines and training."

*Office of the Inspector General*  
Office of the Inspector General  
*28 February 1991*

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# INTRODUCTION

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## Background

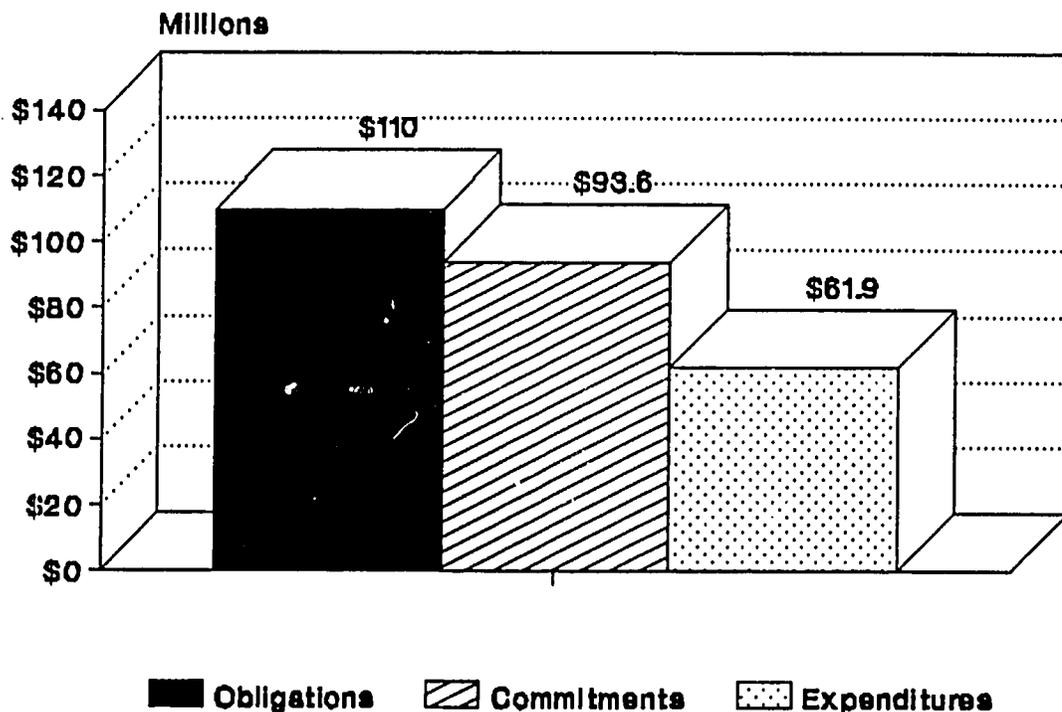
The Provincial Cities Development (PCD) project, managed by USAID/Egypt's Office of Urban Administration and Development, began in August 1981, was modified in July 1985, and is currently scheduled to be completed in August 1991. The project's purposes, as modified, are to improve and expand the water and wastewater systems of Fayoum (estimated population - 330,000), Beni Suef (220,000), and Minia (260,000) located south of Cairo along the Nile (see map on page 4), and to assist those cities and the governorates in which they are located to plan, budget, construct and maintain urban infrastructure systems. The PCD project has, according to project records and USAID officials, several noteworthy achievements to its credit:

- Masterplans for water and wastewater services were completed for each city.
- About 250 high priority water and wastewater improvement subprojects were completed by the PCD cities. Under these subprojects equipment and vehicles were procured, existing water and sewer networks were rehabilitated and extended, existing water and wastewater treatment plants were repaired, roads were constructed, and consulting services were provided to the cities.
- Most of the contracts for the subprojects were awarded to private Egyptian firms, which helped stimulate the local economy.
- The cities have improved their capabilities to plan, budget, contract for services, and to construct, rehabilitate and maintain their urban infrastructure systems.
- Twenty-six training courses have been conducted for 537 city employees.

Planned project inputs total \$178 million: A.I.D. authorized \$110 million in life-of-project funding and the GOE agreed to provide an additional 57.4 million Egyptian pounds (\$68 million) to defray capital and operating costs. As of September 30, 1990 A.I.D. had expended \$61.9 million. According to Mission personnel, the GOE has fully committed the 57.4 million Egyptian pounds.

The status of funds as of September 30, 1990 was:

## STATUS OF FUNDS



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### Audit Objectives

The Office of the Regional Inspector General for Audit/Egypt audited USAID/Egypt's Provincial Cities Development Project, during the period May 1990 through October 1990, in order to answer the following audit objectives:

1. What is the progress of the project?
2. Did USAID/Egypt monitor project activities in a manner consistent with A.I.D. standards?

3. Did USAID/Egypt take the necessary steps to ensure that the water and wastewater facilities financed by the PCD project can be adequately operated and maintained after the project completion date?

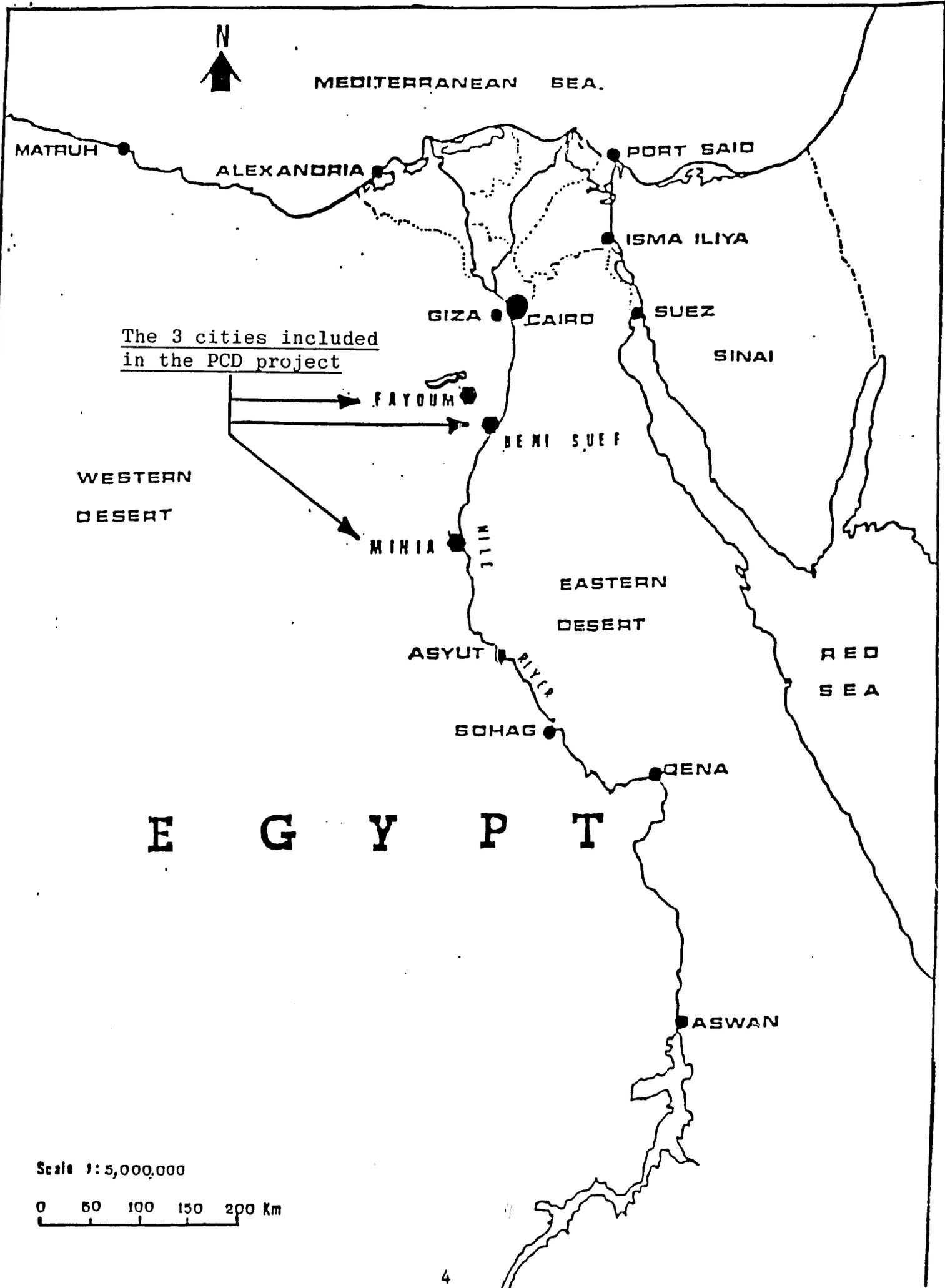
In answering these audit objectives, we tested whether USAID/Egypt had followed applicable internal control procedures, and complied with certain provisions of laws, regulations, grant, and contracts. Our tests were sufficient to provide reasonable -- but not absolute -- assurance of detecting abuse or illegal acts that could significantly affect the audit objectives. However, because of limited time and resources, we did not continue testing when we found that, for the items tested, USAID/Egypt (or the GOE) followed A.I.D. procedures and complied with legal requirements. Therefore, we limited our conclusions concerning these positive findings to the items actually tested. But when we found problem areas, we performed additional work:

- to conclusively determine that USAID/Egypt (or the GOE) was or was not following a procedure or complying with a legal requirement,
- to identify the cause and effect of the problems, and
- to make recommendations that will correct the condition and cause of the problems.

Appendix I contains a complete discussion of the scope and methodology of this audit.

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## **REPORT OF AUDIT FINDINGS**

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### **What is the progress of the project?**

After nine years of project activities, the Provincial Cities Development (PCD) project is well on its way toward achieving its objectives, as redefined in July 1985. These are to improve and expand the water and wastewater systems of Fayoum, Beni Suef and Minia and, secondarily, to improve the capacity of the cities to plan, implement and maintain urban infrastructure systems. The project goal outlined in the original (August, 1981) project paper, "to assist the GOE achieve its policy objective of economic and administrative decentralization," had to be revised in 1985 because it was found to be overly ambitious. The PCD project, however, successfully assisted the cities to plan and implement urban infrastructure projects. According to project personnel and the project paper, significant achievements included:

- Completion of water and wastewater system masterplans for each city.
- Accomplishment of 250 high priority water and wastewater improvement subprojects under which equipment and vehicles were procured, existing water and wastewater systems were rehabilitated, roads were constructed and consulting services were provided to the cities.
- Award of most contracts for the subprojects to private Egyptian firms, which helped stimulate the local economy.

Although considerable progress was made in expanding the cities' water and wastewater systems, activities being implemented under revised project objectives are currently behind schedule and cannot be completed prior to the current project assistance completion date (PACD) of August 31, 1991 because:

- Major activities under the construction contract for improving the potable water and sanitary drainage facilities at each city have been delayed by about 3 years.

- As of September 30, 1990 only \$61.9 million (56 percent) of A.I.D.'s \$110 million contribution had been expended.
- Implementation of the locally managed activities for improving existing water and wastewater systems was slower than planned. Of 38 projects planned for the last five years of the project, 22 projects estimated to cost about \$9.5 million had not yet been started.

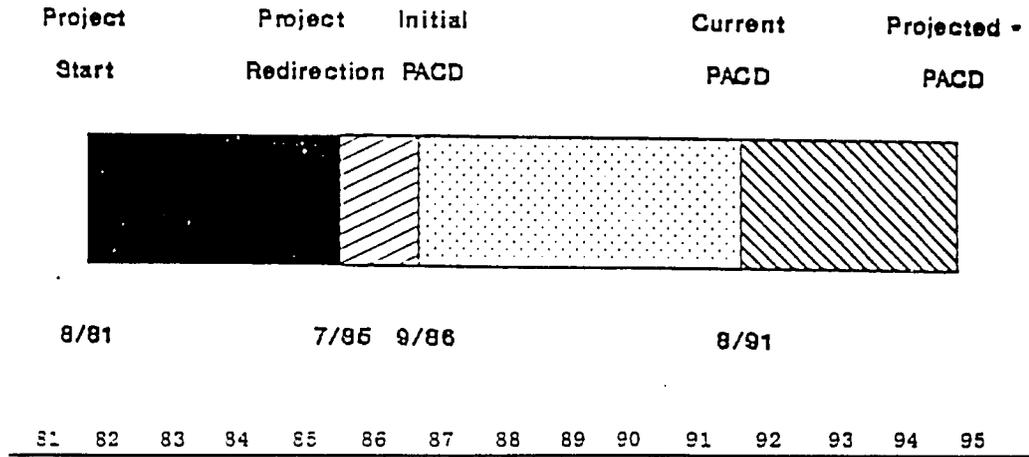
The Mission's quarterly implementation status report for the period ending July 1990, however, identified a contract schedule slippage of only seven months and no mention was made of potential PACD impact.

Other project activities had been completed as required. For example, according to the project paper, technical assistance was provided to assist the cities in implementing 250 high priority water and wastewater improvement subprojects (costing about \$20 million) and twenty-six training courses had been conducted for 537 municipal employees.



**Construction Management Training**

# Project Schedule

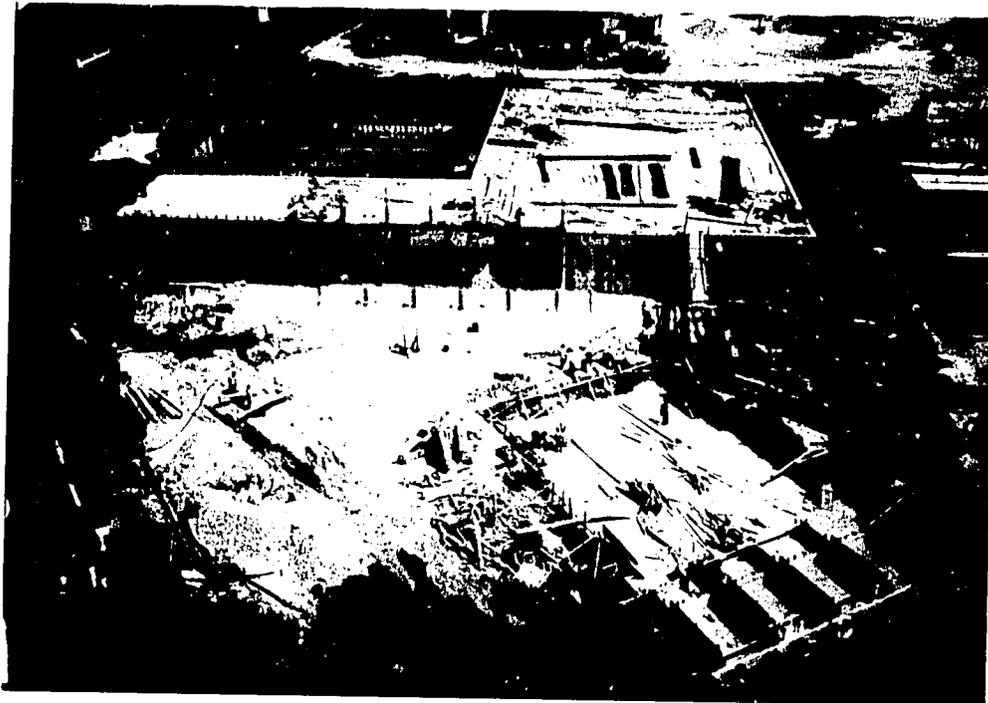


• The projected PACD is based on our assessment that the construction activities are about 3 years behind schedule.

**Water Treatment Facility Construction Progress - Fayoum**



**November 1988**

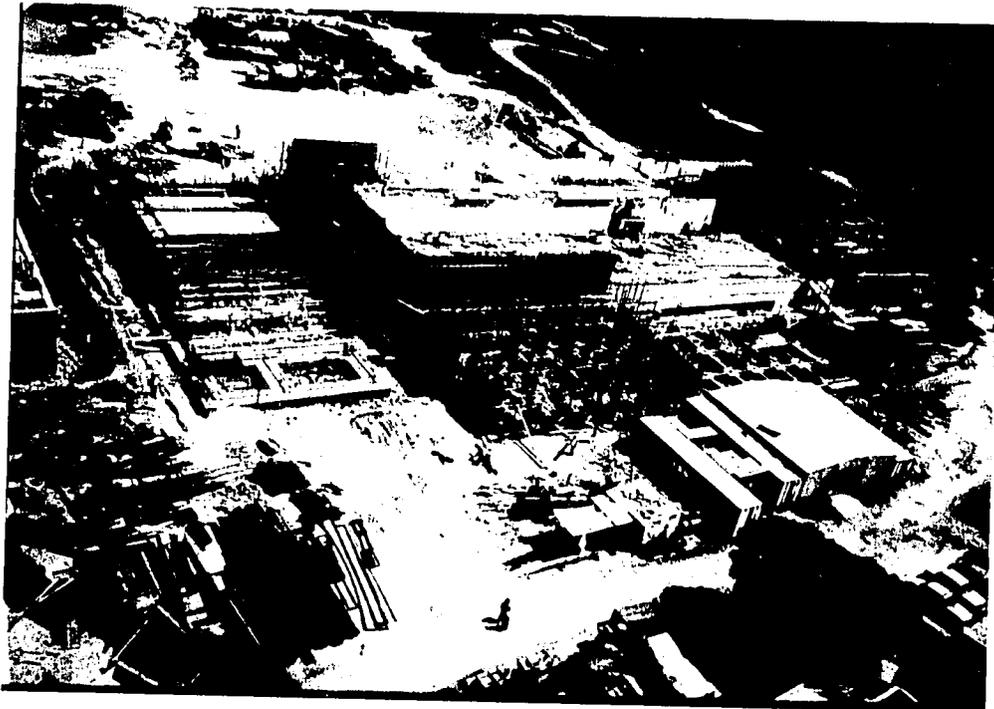


**August 1990**

**Water Treatment Facility Construction Progress - Fayoum**



**November 1988**



**August 1990**

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## Water Tanks in Fayoum



**Tank Used in Current (Fayoum)  
Water System (Capacity 500M<sup>3</sup>)**



**AID Financed Tank  
(Capacity 500M<sup>3</sup>, July 1990)**

**Activities Under the Design-Build Contract Are Significantly Behind Schedule**

Construction tasks and related activities under the design-build contract for water and wastewater improvements in the cities of Fayoum, Beni Suef and Minia are about three years behind the schedule described in the amended project paper.

The construction contract award process took about thirty months longer than planned. The most serious delays resulted from:

- Basic disagreements between the GOE's contracting agency the National Organization for Potable Water and Sanitary Drainage (NOPWASD) and the Mission regarding which contracting procedures were to be used. The process from the advertisement of the procurement to the solicitation of bids thus required about sixteen months.
- Incomplete technical proposals in response to the solicitation for bids required an additional eight months of evaluation effort and clarifications by the bidders in order to obtain acceptable bids.
- A bid protest resulting in a three-month delay in awarding the contract.

Subsequently, the design and construction work was delayed from 9 to 12 months. In addition to financing the host country design-build contract, USAID/Egypt also contracted directly with a separate firm, a joint venture of James Montgomery and Harza Engineering Company ("construction manager"), to supervise the turnkey design-build contract. According to the construction manager, the major cause of the delays was a protracted design process.

As a result, contract activities cannot be completed prior to the PACD and may have to be significantly reduced. A PACD extension would require A.I.D./Washington approval because the project would be extended beyond ten years. Mission management had planned to do this, but had not yet made a formal request because the duration of the extension required had not been accurately estimated.

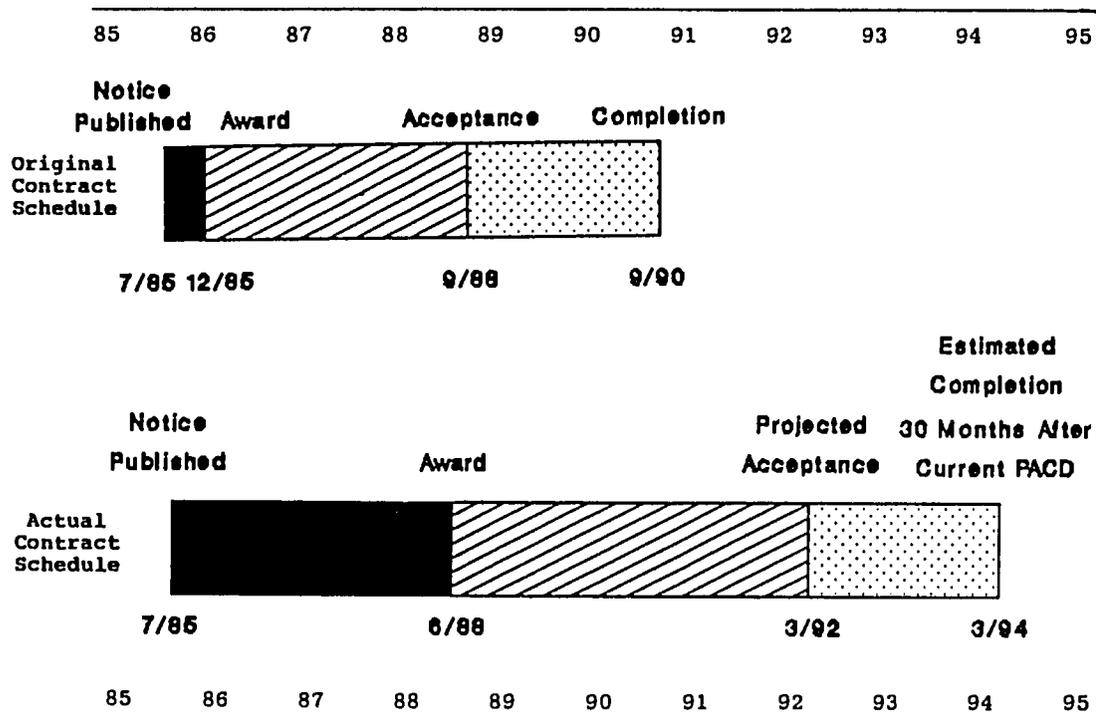
The Mission's quarterly implementation status report did not reflect the project's progress in terms of the project paper's implementation schedule or potential PACD impact. Although the Mission had a reason for this, we believe that its concerns can be adequately accommodated (as discussed below) and the report can also be amended to include more information. This should improve the usefulness of the report to its readers, including those in A.I.D./Washington.

**Recommendation No. 1:** We recommend that USAID/Egypt amend the quarterly implementation status report for this project in order to accurately reflect actual work progress against the implementation plan.

According to the PCD Project Paper, as amended in July 1985, the design and construction of water and wastewater facilities for the three PCD cities was to begin in 1986. The award of the design-build contract (estimated to require six months) was planned at the end of 1985, but did not take place until June 1988, thirty months later. An October 1990 GAO report, "AID Can Improve Its Management of Overseas Contracting," noted that competitive contract actions like this one averaged between 6 and 9 months, according to its survey of selected A.I.D. Missions.

Significant delays have also been experienced under the design-build contract. According to the construction manager, the contract schedule had slipped from 9 to 12 months. Provisional acceptance of the constructed facilities was planned for March 1991, but this event may not take place until March 1992.

## Construction Contract



Host Country Assessments The Payment Verification Policies approved by the A.I.D. Administrator on May 18, 1983 and implemented by Mission Order 19-14, require that host country contracting capabilities be assessed when host country contracting is proposed as a means of implementation.

While the PCD Project Paper contains a discussion justifying the use of the host country contracting mode, a formal assessment was not made prior to its selection under this project. A formal assessment of NOPWASD's capabilities was not made until February 1990, twenty months after the contract was let. The assessment concluded that NOPWASD's contracting procedures conformed to A.I.D. Handbook 11 guidance, but noted certain deficiencies that would cause delays.

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*NOPWASD awarded the [construction] contract . . . to the bidder rated lowest on the basis of technical factors even though the contract required an extensive design effort . . . .*

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Pre-award Delays On July 24, 1985 a notice was published in the Commerce Business Daily inviting eligible contractors to submit prequalification data for the design and construction, on a turnkey basis, of water and wastewater improvements in the three PCD cities.

According to project files, significant pre-award delays resulted from disagreements between GOE contracting agency (NOPWASD) officials and the Mission's project officer regarding the procedures to be followed in awarding the design-build contract.

Construction Manager Issues According to a Mission project engineer, NOPWASD did not believe that a construction manager would be needed under a firm-fixed price contract for construction, while Mission officials advocated the employment of a construction manager (as recommended for turnkey contracts by A.I.D. Handbook 11, Chapter 3.1) to supervise the construction contractor, approve design drawings, certify payments, and ensure that the construction contractor adheres to contract terms and provisions.

There was further disagreement about the main criterion to be used in the selection of the construction manager. If a host country contract were to be used, NOPWASD wanted to use price as a selection criterion, while the Mission's Associate Director for Development Resources stated that U.S. law stipulates procurement of A&E (Architectural and Engineering) services be evaluated on "technical grounds only" with price to be negotiated. NOPWASD and the Mission failed to reach an agreement on this

issue which was resolved by the use of an A.I.D.-direct contract for construction management services. However, the delays in appointing the construction manager for supervising the construction contract also delayed the award of the construction contract.

Construction Contract Issues Another issue that caused a delay in awarding the construction contract involved the prequalification process. While NOPWASD wanted to qualify at least eight bidders, the Mission's project officer recommended strongly that only six bidders be prequalified. However, NOPWASD insisted and set prequalification standards such that eight prospective bidders were eventually qualified.

Additional delays were caused by lengthy (eight months) bid evaluation and equalization procedures. Because the invitation for bid contained only general system specifications, the technical proposals required significant additional design efforts by the bidders. The technical proposals required detailed reviews by NOPWASD and clarifications by the proposing contractors.

In accordance with Handbook 11, Chapter 2, NOPWASD awarded the contract to the prequalified bidder that submitted the lowest responsive and responsible bid. This procedure, however, resulted in an award to the bidder rated lowest on the basis of technical factors even though the contract required an extensive design effort and costs could not be accurately estimated.

Post-award Delays Much of the post-award delay resulted when the design-build contractor (L\*A Water, which had been ranked eighth by NOPWASD in the prequalification process) failed to prepare work drawings in a timely manner. As a result, within a year after the contract was awarded, the contractor had already fallen 5 months behind schedule with only about 5% of the work accomplished when 40% should have been complete. According to the USAID project engineer, the design-build contractor requested to use standardized designs in lieu of those called for in the contract specifications. If the request had been approved, L\*A Water could have eliminated much design work and reduced its design costs. But NOPWASD disapproved the request and did not allow deviations from the contract specifications. According to the USAID/Egypt project engineer, during this period the contractor delayed mobilization efforts for several months.

NOPWASD attributed the lack of early progress by L\*A Water to inadequate contract planning. There were problems in coordinating the design, construction and quality control activities. Ten months after the contract award there was still no project schedule, critical path schedule, or construction site plans. Also design drawings contained large numbers of errors.

On April 14, 1990 the design-build contractor submitted a request for extension of time and cost of delays that in his opinion are attributable to the GOE. In July 1990 the construction manager notified the Mission that the design-build contractor planned to claim more than \$3 million for overhead costs associated with delays that may have been caused by NOPWASD or the cities. For example, there were delays in the payment of invoices for completed work, in providing construction sites, and in approving design changes. A change order to increase the contract price was currently being drafted for review by NOPWASD and the Mission.

Delay Impacting the PACD Contract tasks will not be completed by the current August 31, 1991 PACD date and may have to be significantly reduced. According to the construction manager, L\*A Water cannot make up the delays without an accelerated schedule. Such an acceleration could increase costs by as much as \$15 to \$20 million. The water and wastewater facilities were originally planned to be delivered and accepted provisionally by about March 1991. It now appears that the provisional acceptance date could be as late as March 1992, or about 7 months after the PACD date.

After provisional acceptance, the design-build contractor is required to deliver an additional 24 months of operations and maintenance assistance. Consequently, if the design-build contractor is unable to make up the current 9- to 12-month delay, the work will not be completed until as late as March 1994, two years after delivery of the treatment facilities, and about 30 months beyond the PACD.

Project Status Reporting USAID/Egypt's quarterly implementation status reports did not adequately disclose the status of the PCD project. These reports are an important part of USAID/Egypt's management information system and are used to identify significant problem areas to top Mission and A.I.D./Washington managers. We noted that the PCD quarterly implementation status reports showed contract delays, but did not reflect the project's progress in terms of the project paper's implementation schedule. There was also no mention made of foreseeable PACD extensions. A.I.D. Handbook 3, Appendix 11D suggests that expected extensions of PACD beyond one year be reported in project implementation status reports. More accurate reporting could improve the usefulness of the status report and alert A.I.D. management to problems and resulting delays.

During the exit conference, a Mission official explained that the status report in question is distributed to the GOE and that the report should therefore not signal what the Mission/Agency intends to do about the PACD. We understand the Missions's rationale but also think that the copy of the quarterly report that is sent to the GOE could be adjusted as required, while still reflecting accurately the status of project activities for A.I.D. readers, for whom the report is principally intended.

### **Management Comments and Our Evaluation**

USAID/Egypt stated that the quarterly implementation report has been amended to include a statement describing actual work progress as recommended. We agree that the report is currently accurate and complete. This recommendation is therefore closed.

During the exit conference, Mission officials stated that a decision had been made to request a PACD extension. Our review verified this and on February 5, 1991 the Mission Director's received authority from A.I.D./W to extend the PACD.

### **More Time is Needed to Complete Subprojects**

Implementation and completion of 38 small-scale water and wastewater subprojects by the PCD cities has been slower than planned. Delays experienced under recently completed subprojects ranged from 5 to 11 months. On the basis of this implementation record, we doubt that all of the 22 subprojects (\$9.5 million) currently planned for immediate implementation can be completed prior to the PACD.



**Watersystem Maintenance and Construction Subproject (May 1990)**

Thirteen of the twenty-two projects not yet started were scheduled to be completed three months before the PACD. On the basis of the cities' experience thus far, it would have been more prudent to have scheduled starting these subprojects sooner. This would have increased the probability that the subprojects would be completed prior to the PACD.

If some of these subprojects are not completed prior to the PACD, there is no assurance that there will be sufficient funds to complete them. The Mission has reserved the right to withdraw its financial support for any uncompleted projects. There is also no assurance that the three cities would be able to provide additional funds to complete the water and wastewater system improvements should the Mission withdraw its financial support.

Implementation and completion of 38 small-scale water and wastewater subprojects has been slower than planned. Approval has been given for 26 of these subprojects (costing about \$10 million), and the Mission has agreed to contribute about one-third of the total estimated cost. Only seven subprojects had been completed as of September 1990, however, and those had been delayed from 5 to 11 months. Nine subprojects are still in progress and 10 have not yet started. The Mission, however, is planning to sign 12 additional "fixed amount reimbursement agreements" (FARs) for participation in projects expected to cost about \$8 million. A.I.D.'s share of the cost of these subprojects has increased to total about \$4 million.

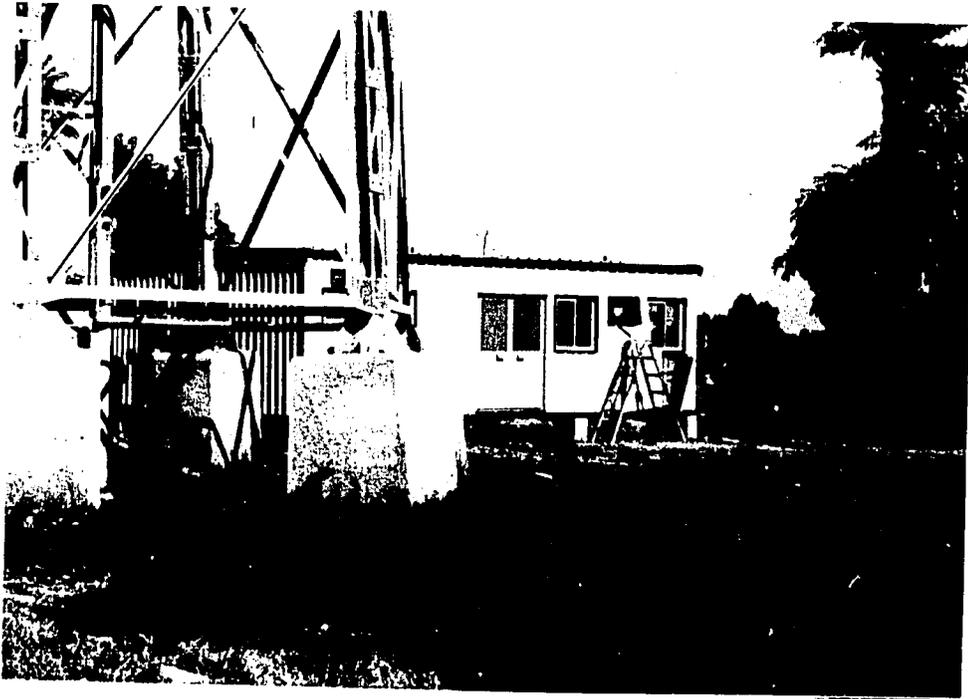
Under FAR arrangements, USAID/Egypt usually reimburses the PCD cities for A.I.D.'s share of the cost of each subproject after the subproject is completed. Of the 19 approved subprojects not yet completed, 7 are planned to be completed about 3 months before the current PACD. Also, 9 of the additional 12 planned subprojects not yet approved had projected completion dates about 3 months before the PACD.

Based on previous experience, the planned subprojects can be expected to experience significant delays. The Mission's project engineer agreed that some projects will probably not be completed prior to the PACD. A.I.D.'s liability is limited because USAID/Egypt need not provide funds for reimbursement of costs on subprojects not completed prior to the PACD. The completion of some subprojects would be jeopardized if the cities were unable to obtain additional funds for any unfunded costs resulting from likely implementation delays. However, because the Mission planned to request a PACD extension, no recommendation is being made in this regard.

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**Did USAID/Egypt monitor project activities in a manner consistent with A.I.D. standards?**

For the items tested, USAID/Egypt has adequately monitored project activities. Project-specific controls, as described by the Mission's Urban Administration and Development Directorate (Appendix IV), were comprehensive and generally functioning as intended. USAID/Egypt's monitoring generally conformed to A.I.D. standards as outlined in AID Handbook 3, Supplement B, Chapter VII. Consequently, the project officer detected and was able to resolve problem areas in a timely manner. We did not identify any reportable monitoring deficiencies.



**Typical Construction Monitoring Site**

USAID/Egypt relies on the joint venture of James Montgomery and Harza Engineering Company under a direct A.I.D. contract for day-to-day monitoring of design-build contractor activities. L\*A Water, the design-build contractor, is responsible for the design and construction of 3 water treatment plants, 9 elevated water storage tanks, underground storage reservoirs, upgrading of 15 wastewater pump stations and the installation of ten kilometers of water and wastewater lines in the cities of Fayoum, Beni

Suef and Minia. USAID/Egypt has contracted for the services of three project engineers to monitor the various subproject activities which include upgrading, rehabilitation and expansion of water and wastewater systems in the three cities.

**Monitoring by USAID/Egypt, as well as the monitoring carried out on behalf of the Mission by the construction manager, generally appears effective in enabling the Mission to control PCD activities by anticipating and correcting implementation problems.** A.I.D. project managers are using appropriate techniques for monitoring project inputs and outputs, and determining whether the project is achieving its intended purposes.

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**Did USAID/Egypt take the necessary steps to ensure that the water and wastewater facilities financed by the PCD project can be adequately operated and maintained after the project completion date?**

For the items tested, USAID/Egypt had not completed all necessary actions to ensure that the water and wastewater facilities financed by the PCD project can be operated and maintained after the project assistance completion date (PACD). Unless USAID/Egypt is successful in obtaining a PACD extension and unless the necessary steps are taken to ensure that a 1984 USAID/Egypt and GOE agreement for improving and strengthening the cities' water and wastewater operations and maintenance (O&M) capabilities is implemented, we doubt that A.I.D.-financed capital investments of more than \$83 million can be adequately sustained.

A 1984 Memorandum of Understanding (MOU) between USAID/Egypt and the GOE covering water and wastewater services recommended that several significant steps be taken to provide increased authority and capabilities to the cities to enhance the sustainability of their water and wastewater systems. Measures were to have been implemented to provide the cities with the ability to raise sufficient revenue to cover 100% of water and wastewater O&M costs. Our audit showed that the cities had improved their ability to collect revenue by providing comprehensive metering and an effective fee collection system for almost all water and wastewater system users. However, the cities' wastewater tariffs had not been raised, nor were the revenues retained to finance O&M expenses because the cities lacked the authority to retain service revenues for their own operating needs. The cities also lacked the capability to accurately determine O&M costs and had not established an autonomous O&M organization for water and wastewater services with the authority to retain service revenues for their own operating needs. The cities were still fully dependent on the central government for financing O&M costs. In October 1990, at the end of our audit,

the government issued a Ministerial Decree confirming that wastewater surcharges should be increased from the current 10 percent rate to 50 percent by March 31, 1991.

USAID/Egypt had not adequately defined the PCD project's objectives in strengthening the cities' O&M capabilities for water and wastewater systems. Although about \$10.6 million had been allocated for an O&M program in the June 1985 project budget, the lack of program definition allowed these funds to remain idle. About \$5 million was later reallocated to the capital account. Although these were reportedly to be used for the purchase of spare parts under the design-build contract, this was not stated in the project implementation letter. Subsequently, these funds were reallocated. Also, there has never been a clear understanding about which O&M requirements would be financed by A.I.D. or the GOE. As a result, the cities had postponed procurement of additional spare parts pending finalization of the O&M program, and only minimal maintenance for the equipment and system improvements had been funded under the project.

Activities under the main design-build contract to furnish initial operational assistance, on-the-job training, testing of the water distribution system under design pressures and associated repairs are currently scheduled after the current PACD.

Several important training activities have been completed by the PCD project. According to project documentation, twenty-six training courses were conducted in which 537 city employees participated. A comprehensive training needs assessment was developed, which identified a need for training in management principles, cost accounting, and O&M. The training program that was implemented, however, was described by city staffs as reactive, sometimes academic, and unrelated to current administrative and O&M procedures.

### **The PCD Cities' Operations and Maintenance Capabilities for Water and Wastewater Facilities Need Strengthening**

The PCD cities had not fully implemented the steps to improve water and wastewater services as recommended by the 1984 memorandum of understanding (MOU) between USAID/Egypt and the GOE. The PCD project had also not adequately defined the Mission's program to improve the cities' O&M capabilities. Specific measures to establish a local autonomous O&M organization with the authority to retain revenue for operating and maintaining city water and wastewater services were still being studied. None of the cities was using collected revenues to defray O&M expenses. The cities also did not yet have adequate cost accounting systems and could therefore not ensure that the revenues collected would be sufficient to cover O&M costs. The Mission had not

detected the significant implementation delays in the GOE's efforts to strengthen the PCD cities' operations and maintenance capabilities.

Consequently, the PCD cities' O&M capabilities are still fully dependent on the GOE central government's ability to satisfy city budget requests. According to city officials this source of funding has not been sufficient to finance O&M costs. The PCD project's O&M budget has varied from \$10.6 to \$2.4 million and still lacks a clear definition as to how these funds are to be used, although such plans are currently being drafted. Leak repair work on the cities' water distribution systems had not been defined and could require more funds than are currently available. A.I.D. had not limited its exposure to risks resulting from the unfinished repairs.

Section 611(e) of the 1961 FAA, as amended, requires the Mission Director to certify that Egypt has the financial and human resources to effectively maintain and use the project. In spite of two Mission Director certifications pursuant to Section 611(e), there is still no assurance that the A.I.D.-financed capital investments of more than \$83 million for the water and wastewater systems will be adequately sustained after the PACD.

**Recommendation No. 2:** We recommend that USAID/Egypt obtain adequate evidence from each of the participating PCD governorates that the necessary steps have been taken to ensure the sustainability of A.I.D.-financed water and wastewater capital improvements by the affected local authorities with their own revenues.

**Recommendation No. 3:** We recommend that USAID/Egypt specifically identify what O&M assistance will be provided by the project.

**Recommendation No. 4:** We recommend that USAID/Egypt include in the next amendment to the PCD Project Agreement a provision which strictly limits A.I.D.'s participation in leak repair work and its exposure to the risk leaks pose to the water distribution systems of the PCD cities after project completion.

In a April 1984 MOU, USAID/Egypt and GOE representatives agreed that, on or before July 1, 1989, Egyptian water and wastewater institutions needed to be strengthened by:

- Tariff increases adequate to cover the cost of water and wastewater operations, maintenance, debt service, and routine improvements, as well as appropriate increases by

the GOE in the size of the operations, maintenance, and investment budgets provided to fund the sector.

- The establishment of autonomous local water and wastewater organizations, with the authority to retain system revenues for their own operating needs.

In October 1984 the GOE's Ministry of Housing and Utilities recommended that Governorates raise tariffs gradually so that the revenues would cover 100% of O&M costs by 1991. In the years when costs exceed revenues, the Ministry of Finance was to make up any difference.

In 1985 the GOE's Supreme Committee for Policies and Economic Affairs, headed by the prime minister, authorized the collection of a surcharge of 10 percent on existing water tariffs to defray the cost of operating and maintaining wastewater facilities. The Supreme Committee also issued guidance authorizing Egypt's governorates to adjust the surcharge "gradually to reach 100% of O&M charges at an appropriate time" and recommended that the governorates "open special accounts" to collect and retain service charges.

The PCD project's original (September, 1981) grant agreement and subsequent activity protocol (implementing documents) under the grant agreement<sup>1</sup> of August 1982 for decentralization sector support contained the following requirements:

The grantee (GOE) shall plan, institute and maintain a plan for a staged program or programs of adequate local revenue generation, that will cause or sustain the financial viability of the sewer and water sub-activities supported under this Grant (or Protocol).

The grantee agrees to exercise its best efforts to develop a system of revenue retention for potable water for each governorate in the Activity.

Our audit showed that the MOU, grant and protocol requirements have yet to be adequately implemented.

Autonomous O&M Organization Although the 1984 MOU recommended that autonomous local water and wastewater organizations be established with the authority

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<sup>1</sup> Five USAID/Egypt projects (including the PCD project) were merged under a sector program for decentralization support.

to collect revenues sufficient for their operations, little progress had been made. NOPWASD officials stated that city employees were not sufficiently qualified to independently manage water and wastewater O&M activities locally. However, the concept of an autonomous water and wastewater organization for the three PCD cities was still being studied.

Revenue generation The cities have improved their capabilities to collect revenues. According to city officials, meters that record water usage had been installed for almost all water consumers in the three PCD cities. The tariff rates subsidize households and governmental offices while tourism, recreational facilities, investment and other private ventures are charged proportionally more. Consumers are billed monthly and revenue collection is reasonably effective.

However, tariffs have not been raised as needed to cover O&M costs. The cities submit O&M budgets through the governorates to the central government. City officials stated that their budget requirements were usually only partially funded and not sufficient to cover water and wastewater O&M requirements. However, an October 1990 Ministerial Decree indicated agreement with the need to raise the wastewater rates from the current 10 percent of water tariffs to 50 percent by March 31, 1990.

Cost accounting The cities lack the capability to determine O&M costs for the water and wastewater services provided. The cities do not use an adequate cost accounting system to measure costs. As long as the cities are dependent on the current centralized system for obtaining financial support for O&M and as long as there is no direct relationship between what is annually requested and obtained, there is little incentive to accurately determine O&M costs.

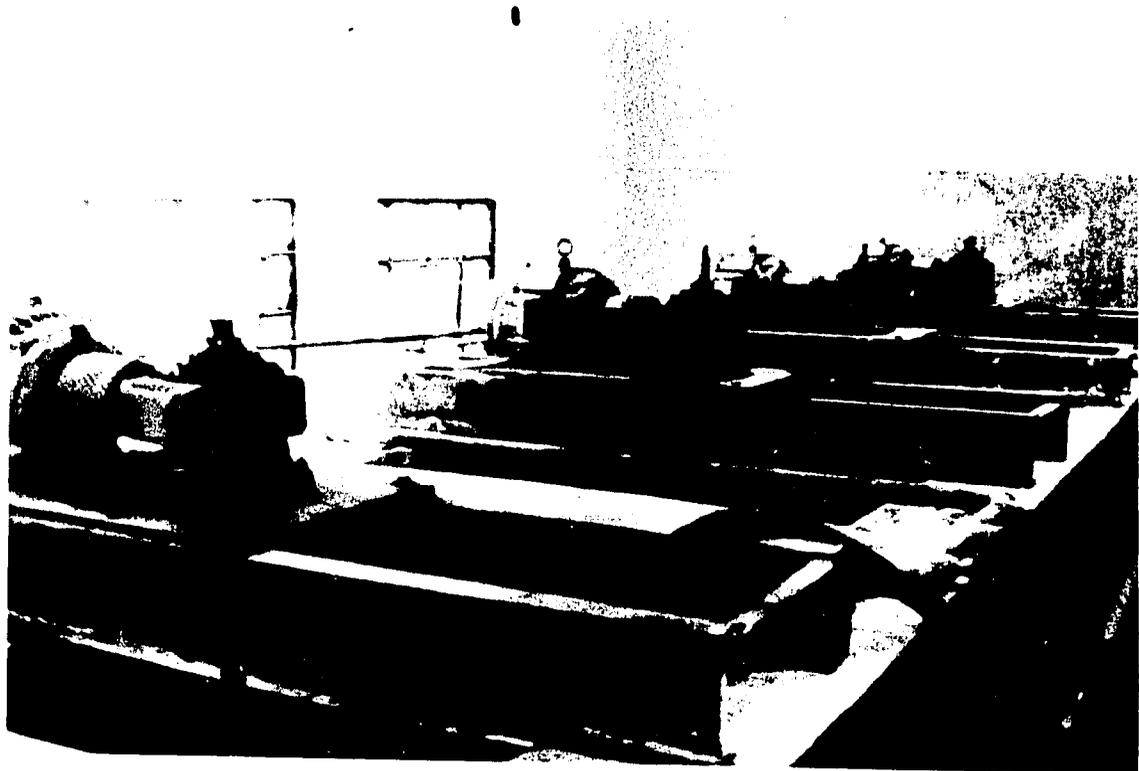
Therefore, because O&M costs are not accurately known, there is also no relation between what it actually costs to deliver water and wastewater services and the revenue currently being generated.

Revenue retention Only Fayoum City retains its collected revenues. Beni Suef and Minia have been directed by the Ministry of Finance to deposit their revenues in the cities' account with the Central Bank. None of the cities, however, was authorized to use the accumulated revenues for any purpose, such as for water and wastewater expenditures.

We have consequently concluded that the cities currently lack the capability to ensure that future O&M operations associated with the A.I.D.-financed water and wastewater facilities will be adequately provided for.

PCD O&M Assistance The PCD project had allocated amounts varying between \$10.6 and \$2.4 million for O&M assistance. Thus far (nine years after the start of the project) there has not been a clear definition as to how these funds are to be used. A comprehensive plan and an associated budget for O&M had not yet been developed. However, these are currently under development. There were, therefore, no implementation milestones and none of the funds allocated were expended for this budget category. In June 1990 USAID/Egypt provided each city with recommended staffing and annual funding requirements associated with the operations and maintenance of the newly constructed facilities. USAID/Egypt stated that with this information the contractor will be able to develop O&M manuals, cost estimates, and a training program for each city.

O&M program guidance In April 1984, the Mission issued specific guidelines to the cities for establishing and using PCD-financed O&M accounts to support interim maintenance requirements for PCD supplied equipment as well as existing water and wastewater facilities. However, because these O&M accounts were not established as suggested, no supplementary funds were provided by the PCD project for interim maintenance requirements. In June 1986, a PCD-financed technical assistance contractor, Wilbur Smith, found that the three cities were not conducting timely preventive and corrective maintenance for the existing (Czechoslovakian-built) water and wastewater treatment plants as shown below.



**Poorly Maintained Beni Suef Water Treatment Facility (June 1990)**

Wilbur Smith therefore recommended that a viable maintenance program be established to include provisions for routine training, acquisition of tools and equipment, and establishing realistic budgets to prevent funds from being reallocated for other purposes.

Not until 1989, however, does there appear to have been any momentum to implement the guidelines for establishing a viable O&M program. In July 1989 the PCD project officer specifically requested that the project steering committee<sup>2</sup> implement the issued guidelines and cautioned that the USAID contribution (reduced to about \$5 million) would need to be obligated prior to the PACD. Subsequently the construction manager and the cities have prepared various draft specifications for the city O&M programs. Comprehensive plans are currently under development.

Preventive maintenance Our audit showed that preventive maintenance for A.I.D.-financed equipment was inadequate. Equipment was not repaired because of a lack of spare parts. We were told that the city budgets were not adequately funded by the GOE to procure spare parts because there was no clear understanding about whether USAID or the GOE was responsible for O&M. City requests for A.I.D. financing to procure spare parts had also been delayed by the Mission pending development of a comprehensive O&M program.

O&M Tasks under Design-build Contract The design-build contract requires that the construction contractor deliver two years of continuing O&M assistance for the newly constructed water and wastewater facilities after provisional acceptance. When the contract was awarded in May 1988, it was recognized then that 18 out of the 24 months required for O&M assistance would fall after the current PACD. However, now that additional delays of 9 to 12 months are being experienced in completing the design-build work, the planned O&M tasks will likely begin no earlier than December 1991, 4 months after the current PACD.

Leak repairs An important requirement under the design-build contract is to identify leaks in the water distribution systems. Although it is known that there are many leaks in the systems, the extent of the repairs required cannot be fully anticipated until the leak detection tasks have been completed.

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<sup>2</sup> The PCD project steering committee was established by the Grant Agreement and includes the Governors of Fayoum, Beni Suef, and Minia, the GOE's Deputy Minister of Regional Planning and the Senior Undersecretary of State for Economic Cooperation with the U.S.A.

**A.I.D. Financed Sewer Vacuum Equipment - Minia (June 1990)**



**Note: The city could not maintain this equipment because of limited maintenance capabilities and insufficient spare parts.**

Leak detection work under the design-build contract was delayed because not enough pressure could be sustained in the existing water distribution systems. The construction manager's chief engineer expressed a concern to us that the water distribution systems may not be operated at the intended design pressures for three or more years after provisional acceptance of the newly constructed facilities because it will not be until then that all of the system leaks will have been repaired.

It had not been decided whether USAID/Egypt or the cities would assume responsibility for the leak repairs. There was about \$1.3 million available for leak repairs in the PCD budget under the design-construction contract. However, according to the chief engineer, even this amount may not be sufficient. The construction manager envisioned a 5 to 10 year program to upgrade the existing water network. The cost of these repairs cannot be known until they are actually underway. A repair plan and related budget is currently needed to efficiently address the leak detection and follow-on repair work.

Section 611(e) certification Section 611(e) of the Foreign Assistance Act of 1961, as amended, requires that no assistance be furnished with respect to any capital assistance project estimated to cost in excess of \$1,000,000 until the Mission Director has certified to the capability of the country (both financial and human resources) to effectively maintain and use the project.

This certification was made by USAID/Egypt Mission Directors on July 1981 and again on July 17, 1985. The latest certification was also based on the assumption that the construction contractor for the three water treatment plants would provide two years of O&M assistance and on-the-job training in plant operations.

The section 611(e) certifications notwithstanding, we have concluded that unless MOU measures are fully implemented, O&M plans finalized, and the PACD extended to provide for adequate O&M assistance, there is currently no assurance that A.I.D.-financed capital investments exceeding \$83 million will be appropriately operated and maintained.

### Management Comments and Our Evaluation

USAID/Egypt stated that it agrees fully with the sustainability objective of Recommendation No. 2, but that the assurances are not attainable at this time. The Mission intends to make recommendations to the municipalities within the framework of the Government decrees and remind the Grantee of its responsibilities vis-a-vis the project covenants and the Memorandum of Understanding (MOU) to develop a revenue generation and retention system. We believe that this recommendation can be closed when the Mission provides us with a copy of the document that transmits the Mission

recommendations to the municipalities and evidence that additional reminders have been transmitted to the Grantee about its obligations under the project covenants and the MOU.

In response to Recommendation No. 3, USAID/Egypt stated that the consultant will recommend appropriate changes to the existing O&M plans and budgets for the three localities. The O&M plans are expected to be in place before the new treatment plants are turned over to municipal authorities for operation. We believe that this recommendation can be closed when the Mission provides us with the revised O&M plans and budget for the PCD project.

USAID/Egypt believes that there is no risk or exposure in this project for the repair of leaks as was suggested by Recommendation No. 4. However, the Mission has taken additional action to mitigate the potential impact of leaks in the system on the water distribution system. The actions contemplated involve the installation of pressure-reducing/pressure-sustaining valves in the water distribution system. We will be able to close this recommendation when the Mission has provided us with a contractual statement of work for the installation of these pressure reducing/sustaining valves in the water distribution systems of the three cities.

## **REPORT ON INTERNAL CONTROLS**

We have audited USAID/Egypt's Provincial Cities Development Project for the period July 17, 1985 through September 30, 1990 and have issued our report thereon.

We conducted our audit in accordance with generally accepted government auditing standards, which require that we plan and perform the audit to fairly, objectively, and reliably answer the objectives of the audit. Those standards also require that we:

- assess the applicable internal controls when necessary to satisfy the audit objectives; and
- report on the controls assessed, the scope of our work, and any significant weaknesses found during the audit.

In planning and performing our audit, we considered A.I.D.'s internal control structure to determine our auditing procedures in order to answer each of the three audit objectives and not to provide assurance on the internal control structure.

The management of A.I.D., including USAID/Egypt, is responsible for establishing and maintaining adequate internal controls. Recognizing the need to re-emphasize the importance of internal controls in the Federal Government, Congress enacted the Federal Manager's Financial Integrity Act (the Integrity Act) in September 1982. This Act, which amends the Accounting and Auditing Act of 1950, makes the heads of executive agencies and other managers as delegated legally responsible for establishing and maintaining adequate internal controls. Also, the General Accounting Office (GAO) has issued "Standards for Internal Controls in the Federal Government" to be used by agencies in establishing and maintaining such controls.

In response to the Integrity Act, the Office of Management and Budget (OMB) has issued guidelines for the "Evaluation and Improvement of Reporting on Internal Control Systems in the Federal Government." According to these guidelines, management is required to

assess the expected benefits versus related costs of internal control policies and procedures. The objectives of internal control policies and procedures for federal foreign assistance programs are to provide management with reasonable--but not absolute--assurance that resource use is consistent with laws, regulations, and policies; resources are safeguarded against waste, loss, and misuse; and reliable data is obtained, maintained, and fairly disclosed in reports. Because of inherent limitations in any internal control structure, errors or irregularities may occur and not be detected. Moreover, predicting whether a system will work in the future is risky because (1) changes in conditions may require additional procedures or (2) the effectiveness of the design and operation of policies and procedures may deteriorate.

For the purposes of this report, we have classified significant internal controls policies and procedures applicable to each of the audit objectives by categories. For each category, we obtained an understanding of the design of relevant policies and procedures and determined whether they have been placed in operation--and we assessed control risk. In doing this work, we found certain problems that we consider reportable under standards established by the Comptroller General of the United States. The Mission did not report most of these problems in the annual internal control assessments, required by the Integrity Act. Reportable conditions are those relating to significant deficiencies in the design or operation of the internal control structure which we become aware of and which, in our judgement, could adversely affect USAID/Egypt's ability to assure that resource use is consistent with laws, regulations, and policies; resources are safeguarded against waste, loss, and misuse; and reliable data is obtained, maintained, and fairly disclosed in reports.

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### **Audit Objective One**

The first objective was to gather and verify information on the progress of the project, the sources of which included progress reports by the construction manager, USAID/Egypt financial reports and interviews. For this objective, the categories of internal controls are covered under objective two, but reportable problems we noted are discussed as follows:

- The Mission had not adequately assessed the GOE's contracting capabilities before award of the host-country design-build contract even though the PCD Project Paper indicated this contracting mode would be used. This indicates a weakness in the Mission's internal control system for ensuring that basic A.I.D. requirements are complied with.

- The Mission's internal control environment consists primarily of management's philosophy, operating style, and USAID/Egypt's organizational structure. Mission management did not report information in the Mission's quarterly implementation status report sent to AID/W that accurately reflected the project's progress in terms of the project paper's implementation schedule and potential PACD impact. We believe that the Mission should not forward inaccurate data to AID/Washington.
- Project management had not ensured that city subproject implementation schedules were practical or that subproject completion dates were scheduled well in advance of the project's PACD. The Mission lacked an internal control procedure that ensured that changes in implementation were reflected, as needed, in appropriate schedules.

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## **Audit Objective Two**

Objective two concerns project monitoring. In planning and performing our audit of management oversight, we considered the relevant internal control policies and procedures cited in A.I.D. Handbook 3. For purposes of this report, we have classified the relevant policies and procedures into the following categories: 1) project inputs, outputs and whether project objectives are being accomplished; 2) monitoring of the construction manager who was responsible for monitoring the design-build contractor; and 3) monitoring of small-scale water and wastewater sub-projects.

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## **Audit Objective Three**

Objective three relates to project sustainability after A.I.D. funding for the project ends. In planning and performing our audit we considered the relevant internal control policies and procedures cited in A.I.D. Handbooks. Under the Memorandum of Understanding of 1984, USAID/Egypt and the GOE agreed to strengthen water and wastewater services by increasing tariffs to cover 100% of O&M costs by year 1992. The water tariffs have been raised but the wastewater surcharge of 10% on water bills has remained unchanged since its establishment in 1985. Although the MOU is a statement of USAID/E policy on the need to increase tariffs, it does not constitute an agency internal control procedure.

- The Mission's internal control systems had not detected significant implementation delays in GOE activities for strengthening PCD cities' operation and maintenance capabilities for water and wastewater facilities.

A material weakness is a reportable condition in which the design or operation of the specified internal control element does not reduce to a relatively low level the risk that errors or irregularities in amounts that would be material in relation to the financial report on project funds being audited may occur and not be detected within a timely period by employees in the normal course of performing their assigned functions.

Our consideration of internal controls would not necessarily disclose all matters that might be reportable conditions and, accordingly, would not necessarily disclose all reportable conditions that are also considered to be material weaknesses as defined above. However, we believe the reportable conditions described under audit objective one and three are material weaknesses.

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## **REPORT ON COMPLIANCE**

We have audited USAID/Egypt's Provincial Cities Development project for the period July 17, 1985 through September 30, 1990 and have issued our report thereon.

We conducted our audit in accordance with generally accepted government auditing standards, which require that we plan and perform the audit to fairly, objectively, and reliably answer the audit objectives. Those standards also require that we:

- assess compliance with applicable requirements of laws and regulations when necessary to satisfy the audit objectives (which includes designing the audit to provide reasonable assurance of detecting abuse or illegal acts that could significantly affect the audit objectives) and
- report all significant instances of noncompliance and abuse and all indications or instances of illegal acts that could result in criminal prosecution that were found during or in connection with the audit.

Noncompliance is a failure to follow requirements, or a violation of prohibitions, contained in statutes, regulations, contracts, grant and binding policies and procedures governing entity conducts. Noncompliance constitutes an illegal act when the source of the requirement not followed or prohibition violated is a statute or implementing regulation. Abuse is furnishing excessive services to beneficiaries or performing what may be considered improper practices, which do not involve compliance with laws and regulations.

Compliance with laws, regulations, contracts, and grants applicable to the Project is the overall responsibility of USAID/Egypt's management. As part of fairly, objectively, and reliably answering the audit objectives, we performed tests of USAID/Egypt, contractor, and host-government compliance with certain provisions of Federal laws and regulations, contracts and grants. However, our objective was not to provide an opinion on overall compliance with such provisions.

The results of our tests of compliance disclosed the following instances of noncompliance:

- USAID/Egypt did not comply with A.I.D.'s Payment Verification Policy of 1983 when it selected the host country contracting mode for the PCD project's main design-build contract without first assessing the contracting capability of the GOE implementing agency (NOPWASD).
  - The grantee did not exercise his best efforts to develop a system of revenue retention for potable water for each governorate as agreed to in a special covenant to the grant agreement.
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## SCOPE AND METHODOLOGY

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### Scope

We audited USAID/Egypt's Provincial Cities Development project in accordance with generally accepted government auditing standards. We conducted the audit from May 1990 until October 1990 and covered the systems and procedures relating to project inputs financed by A.I.D. from July 1985 (project amended) through September 1990. As noted below, we conducted our field work in the offices of USAID/Egypt, at the National Organization for Potable Water and Sanitary Drainage (NOPWASD), and in the offices of PCD contractors, as well as at various construction sites in the cities of Beni Suef, Fayoum and Minia.

The audit objectives did not cover project activities conducted before July 1985. Because we lack the necessary technical expertise, we did not evaluate physical adequacy or quality of facilities constructed.

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### Methodology

To assist us in our review of internal controls, we requested that project management provide us with a statement. We subsequently reviewed management's statement of internal controls (see Appendix IV).

The methodology of each audit objective follows:

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**Audit Objective One**

The first audit objective consisted of gathering and verifying information to determine the status of the project. We relied primarily on USAID/Egypt subproject monitoring and site visit reports and verified these by observations during our field trips, Montgomery/Harza and city consultant progress reports, and USAID/Egypt financial reports. We also interviewed both USAID/Egypt and Montgomery/Harza staff about the status of project outputs. We verified selected information and found that Montgomery/Harza progress reports, as well as USAID/Egypt financial reports, were generally complete. We also relied on subproject files to show project completion.

**Audit Objective Two**

To accomplish the second objective, we determined whether the project officer adequately monitored: 1) project activities, and 2) the design-build contractor's activities. We determined whether: 1) the design-build contractor had developed a work plan to implement the statement of work, 2) the project officer prepared site visit reports, 3) the project officer received copies of all contractor progress reports, 4) the contractor reported on progress made on each task of the work plan, 5) the project officer followed up with contractors on deficiencies noted in contractors' reports to ensure that corrective actions had been taken, 6) A.I.D. personnel visited the contractors' work sites, 7) site visit reports served as effective monitoring and reporting tools, 8) the project officer had kept host country personnel informed about progress and any problems, 9) the project officer has submitted periodic reports to Mission management detailing project status, 10) the project officer had established and maintained a system for monitoring projects inputs, and 11) the project officer had ensured that the project could be adequately evaluated. To make these determinations we considered project monitoring criteria identified in A.I.D. Handbook 3, Supplement B, Chapter VII.

To accomplish the above, we examined the project paper implementation plan, contractor work plans, financial reports, city master plans, project paper progress indicators, contract files, contractor progress reports, site visit reports, quarterly management reports, and reports sent to Mission management. We also held discussions with project engineers, contractors, and city officials. Finally, we visited the water and wastewater treatment plant sites.

**Audit Objective Three**

The third audit objective relates to project sustainability after A.I.D. support ends. In order to achieve our objective we determined whether USAID/Egypt and the cities followed appropriate procedures in: (a) setting and adjusting water and wastewater tariffs to sustain operating and maintenance operations, (b) establishing water and wastewater fee collection systems, (c) retaining and using water and wastewater fees, (d) establishing an adequate accounting system to assist in adjusting tariffs, (e) defining a coordinated operation and maintenance program, and (f) testing water and wastewater systems. We did not test any other procedures.

To verify the implementation of the above procedures we interviewed several USAID personnel and provincial cities' officials. We also reviewed grant agreements, project papers and relevant amendments. We obtained and reviewed several GOE, PCD cities and USAID reports and agreements as well as the 1985 Memorandum of Understanding between the GOE and A.I.D.

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## UNITED STATES AGENCY for INTERNATIONAL DEVELOPMENT

CAIRO, EGYPT

RECEIVED

FEB 19 1991

MEMORANDUM

TO: Frederick A. Kalhammer, RIG/A/C

FROM: Marshall D. Brown, DIR/USAID/E *Ma D B*

SUBJECT: Response to Draft Report on the Audit of  
USAID/Egypt's Provincial Cities Development  
Project No. 263-0161.03

Attached is subject audit response.

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## Mission Overview Statement

The purpose of the Provincial Cities Development (PCD) project is to improve the quality of life by improving and expanding the water and wastewater systems in the three provincial cities of Fayoum, Beni Suef and Minya. Pumping stations and wastewater treatment facilities have been rehabilitated; water and wastewater lines have been rehabilitated and installed. Three water treatment plants are more than 60% complete and work is progressing. United States construction and quality control techniques have been used to assure quality products. To assist the cities to maintain the expanded and improved systems, USAID is and will be providing extensive operation and maintenance (O & M) guidelines and training.

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**Recommendation No. 1:**

We recommend that USAID/Egypt amend the quarterly implementation status report for this project in order to accurately reflect actual work progress against the implementation plan.

**Mission Response:**

The quarterly implementation report for the Provincial Cities Development project has been amended to include a statement describing actual work progress as recommended. The Mission requests closure of this recommendation.

**Recommendation No. 2:**

We recommend USAID/Egypt obtain adequate evidence from each of the participating Provincial Cities Development project governorates that the necessary steps have been taken to ensure the sustainability of AID-financed water and wastewater capital improvement by the affected local authorities with their own revenues.

**Mission Response:**

The Mission concurs fully with the sustainability objective of this recommendation, but the assurances you want for the future are not attainable at this time.

We are pleased with progress to date to sustain the O & M costs of the project. The GOE has already taken a number of important and politically difficult but "necessary" steps toward local autonomy in the area of operations and maintenance for water and wastewater facilities. To begin with, the central Government issued a decree allowing governorates to increase water tariff to cover 100% of O & M costs by the end of 1991. Another recent decree allows wastewater tariffs to be raised from 10% to 50% of water rates to meet the costs of O & M for wastewater facilities. These are steps the GOE has already taken. However the central Government has yet to give the municipalities the authority to retain the water and wastewater revenues and to expend those funds for the operation and maintenance of their facilities. This is an important step towards local autonomy but a difficult step, as it mandates a substantial change in GOE budget administration.

For our part, the Mission has a contract with a local consultant who is studying the adequacy of current O & M budgets and plans of the three cities. Upon completion of this work, the consultant will recommend changes to the O & M budgets to cover the O & M costs. The municipalities will then be able to

determine what rates they will have to charge for water and wastewater to have revenues cover costs. We will make recommendations concerning appropriate rate hikes and explain options available to the municipalities within the framework of the existing central Government decrees. The Mission will also remind the Grantee of its responsibilities vis-a-vis the project covenants and the Memorandum of Understanding to develop a revenue generation and retention system.

Realistically, however, these steps cannot be completed for at least a year. Moreover, given that the ultimate success of these steps rests on the willingness of the GOE authorities to raise tariffs to adequate levels, we will continue to make our views and recommendations known and remind the GOE of its commitments.

In view of the foregoing, the Mission requests that you close the recommendation.

**Recommendation No. 3:**

We recommend that USAID/Egypt specifically identify what O & M assistance will be provided by the project.

**Mission Response:**

There is a considerable amount of O & M assistance that has been provided under this project. For example, before this audit commenced, the Mission realized that this area was less than adequately addressed in the Project Paper and took appropriate steps to address the O & M area. The prime contract with L\*A Water Treatment Company was amended to include the drafting of O & M manuals and procedures, in Arabic, for all the subproject elements being executed by the cities, in addition to the O & M manuals and procedures for the new water treatment plants. USAID/Egypt, through its prime contractor, will also provide a stock of spare parts to meet the initial O & M needs. At the time the audit was conducted, the Mission was in the process of contracting with a local consultant to evaluate O & M needs for the three provincial cities. Subsequent to that evaluation, the consultant will recommend appropriate changes to the existing O & M plans and budgets for the three localities.

This is in addition to the project having already provided the cities with job descriptions, training courses and maintenance estimates. The municipalities, through the Provincial Cities Development project, will have appropriate O & M plans in place, in the three localities, before the new water treatment plants are turned over to municipal authorities for operation. Based on this information, the Mission requests closure of this recommendation.

**Recommendation No. 4:**

We recommend that USAID/Egypt include in the next amendment to the Provincial Cities Development Project Agreement a provision which strictly limits AID's participation in leak repair work and its exposure to the risk leaks pose to the water distribution systems of the Provincial Cities Development project cities after project completion.

**Mission Response:**

This recommendation was not raised before or during the audit exit briefing.

There is no risk or exposure in this project for the repair of leaks. The Project Paper is quite specific in its discussions concerning the leak repair work. It states in the Needs and Proposed Actions sections for each of the three cities the following:

"A leak detection survey is also needed for the water distribution system. Major leaks should be repaired as discovered. It is suspected that due to the nature of construction of the water lines that there are numerous small leaks rather than a few large leaks. It is therefore questionable whether or not it will be practical to correct more than a handful of such leaks. Therefore, only limited success is projected for this program."

As can be seen, it was not then nor is it now the intention of the Provincial Cities Development project to repair all leaks in all three systems. The Mission has no implied liability, obligation or responsibility to fund the repair of more leaks. In fact, the leak study found that the suspicions stated in the Project Paper were justified; the three systems are plagued with numerous small leaks rather than a few large leaks.

Although the Mission has no obligation to repair leaks, we have taken additional action to mitigate this situation. Pressure-reducing/pressure-sustaining valves will be installed to isolate those parts of the three systems that may not be able to hold the new (increased) system design pressure, and are in such condition that the only feasible repair would be to remove and replace large quantities of water lines. The cities will be able to replace the leaking lines at their own pace and simply remove the pressure-reducing/pressure-sustaining valves to bring loops up to the system design pressure. This method of addressing the situation will keep leaks at an acceptable level, while still allowing the new water treatment facilities to operate at their designed capacities and allow the good city lines to carry the increased system design pressure.

This strategy was developed by the construction manager after performing a network hydraulic analysis requested by the Mission in January, 1990. Based on the foregoing, the Mission requests that this recommendation be closed.

General Comments:

Pg 20: The reference to Handbook 11, Chapter 3 should be changed to Chapter 2.

Pg 20: The sentence "NOPWASD awarded the design-build contract to the bidder rated lowest on the basis of technical factors" is misleading and requires clarification. NOPWASD followed all the requirements of Handbook 11 for this procurement. Once firms are prequalified and subsequently issued an IFB, the firms' relative standing for prequalification purposes is no longer relevant. This sentence would be more accurate and reflect the events as they actually occurred if it stated "In accordance with Handbook 11, Chapter 2, NOPWASD award the contract to the prequalified bidder that submitted the lowest responsive and responsible bid." The Mission requests that this sentence be substituted for the sentence in the draft report. 1/\*

Comment and corresponding sentence in draft report have both been deleted, at the Mission's request.

Pg 23: The second paragraph states that no formal request for a PACD extension had been implemented. In fact the Mission began drafting a PACD extension request in early November 1990, cleared it through the appropriate Mission Offices, and transmitted the extension request cable to AID/W on 16 December 1990. It is now in the clearance process before being sent to the Administrator. The Mission requests that the RIG/A include this in the report for clarification.

Pg 23: The Mission requests that the last sentence on this page, beginning "A Mission official, in order..." be clarified. This is apparently the same misunderstanding as the second item referred to on page 20, above.

Pg 39: The Mission requests that the picture captioned "poorly maintained Beni Suef Water Treatment Facility" be removed from the audit report. This existing plant at Beni Suef is not a part of the Provincial Cities Development project and was not constructed with AID financing. If the picture remains in the report, the Mission requests that the caption be changed to point out that this plant was not constructed as part of the Provincial Cities Development project; that it was constructed by the Czechoslovakian Government.

### INTERNAL CONTROL

The audit report defines a material weakness as "a reportable condition in which the design or operation of the specified internal control element does not reduce to a relatively low level the risk that errors or irregularities in amounts that would be material in relation to the financial period by employees in the normal course of performing their assigned functions." Though the meaning of this statement is not clear, USAID/Egypt believes it understands the intent. As discussed below, the conditions were known and were addressed by the Mission. We believe that this fact indicates that the Mission internal controls function as intended. We object that the draft audit report describes conditions without identifying the internal control function/system that is not working. Management internal controls must be viewed as a whole, not as separate parts. We view internal controls as a complete system. As such, the control systems we implement may have primary, secondary or even tertiary controls. In short, we attempt to ensure that if one part or function fails, another part will identify to management the potential problem. We believe that USAID/Egypt's 2/ internal control system works.

Condition 1: The Mission had not assessed the GOE's contracting capabilities before award of the host-country design-build contract even though 3/ the PCD Project Paper indicated this contracting mode would be used.

### Mission Response:

The Payment Verification Policy was not issued in draft until 1983, with subsequent guidance provided in 1985 and 1987. The Mission has been actively improving the quality of its

assessments over the past several years. The quality and supporting documentation of assessments performed today far exceed the quality and documentation of assessments performed shortly after the Payment Verification Policy was issued. An assessment, albeit much more informal than required under today's standards, was performed. The Mission believes that to apply today's standards to assessments performed in 1981 and 1985 is unreasonable.

Condition 2: Project management did not provide information for the Mission's quarterly implementation status report that reflected the project's progress in terms of the project paper's implementation and potential PACD impact. 4/

Mission Response:

While the condition reported may be technically correct, project management had in fact made Mission management aware of the PACD impact of implementation progress through several other management tools. These include: (a) the semi-annual portfolio review; (b) the alert list meeting where projects with problems are scrutinized by top Mission management; and (c) minutes of project committee meetings. Management tools highlighted the implementation problems and the potential PACD impact. The decision was made early on to extend the PACD and was highlighted to Mission management. The decision was also made to delay the PACD extension request as long as management deemed prudent not only to more accurately assess the impact of the implementation delays but also to leverage the pace of implementation.

Condition 3: Project management had not ensured that city subproject implementation schedules were practical or that subproject completion dates were scheduled well in advance of the project's PACD. 5/

Mission Response:

The three cities involved, like cities worldwide, are continually trying to improve services by repairing old water and wastewater systems as well as construction of new systems. To limit the timeframe of system improvements to only the project PACD does not appear to be reasonable. USAID/Egypt is financing the Master Plan improvements which could be completed prior to the PACD. These subprojects will be, for the most part, completed by the time the water treatment plants are in operation. In reviewing the cities' implementation schedules, USAID/Egypt knew that it was going to request a PACD extension. However, USAID/Egypt clearly states in subproject financing arrangements that USAID would only finance what was completed by the project PACD. No agreements were executed with completion dates beyond the PACD.

Condition 4: The PCD cities' operation and maintenance capabilities for water and wastewater facilities needed strengthening. 6/

Mission Response:

A major element of the project is to improve the PCD cities' operation and maintenance capabilities. The strengthening of the O & M capacity is an end of project status. The Mission is surprised that the above statement is listed as an internal control condition. The problem has been recognized and is being addressed by the Mission.

Condition 5: The Section 611(e) of the 1961 Foreign Assistance Act Certification was made without sufficient assurance that the GOE would take appropriate steps for ensuring that the AID-financed facilities would be adequately operated and maintained after acceptance. 7/

Mission Response:

Project Agreement section 5.8 (covenant section) states:

Operations and Maintenance. The Grantee shall, through NOPWASD and the cities of Fayoum, Beni Suef and Minia operate, maintain and repair the systems constructed under this Project in conformity with sound engineering, financial and administrative practices and in such a manner as to ensure the continuing and successful achievement of the purpose of the Project. [underline added]

The Mission believes the covenant constitutes acceptable assurance for section 611(e) purposes.

Condition 6: The effects of pre-existing leaks on the operation of AID-financed water distribution systems has not been adequately addressed and A.I.D.'s exposure resulting from such latent defects is unknown. 8/

Mission Response:

Please see the Mission discussion under Recommendation 4 in the Mission response to the audit.

General Comments:

page 47: The Mission objects to the sentence: "The Mission did not report most of these problems in the annual internal control assessments, required by the Integrity Act." USAID/Egypt reported condition 1 (host country assessments) as a material 9/

weakness in its last assessment. Other than condition 1 above, Mission management does not believe the other conditions are material weaknesses in its internal control system. The conditions identified are project implementation issues which are identified by the Mission internal control system and handled accordingly. Consequently, the Mission requests that this statement be withdrawn from the report.

**IG Response to Management's Comments**

- 1/ The statement has been amended, however, our principal point was that by following the Handbook guidance for pure construction services, the contracting agency awarded a contract which included significant design work on the basis of price alone (after eight prospective contractors had been prequalified). We recognize that the Handbook does not provide specific guidance on contracting for design-build contracts. The Mission's new February, 1991 policy (Mission Order No. 5-4) should provide for increased consultations with the Mission's Contracts Office, which in turn should help in the future selections of appropriate contract award procedures and contract types.
- 2/ The report shows that we identified those internal controls which are either not present or not working as intended.
- 3/ The internal control weakness involved was the USAID/Egypt system for ensuring that basic A.I.D. requirements are complied with. We consider the absence of a documented and thorough assessment of an implementing agency's capability to (a) advertise, award and negotiate contracts, (b) monitor contract implementation, (c) administer contracts, (d) perform voucher examination functions, and (e) provide adequate audit coverage, evidence that a weakness exists. Furthermore, the Mission did report the lack of host country assessments as a material weakness in the last Mission OMB Circular A-123 assessment.

The fact that A.I.D. Headquarters had not provided specific guidance about how to do an assessment may be considered another weakness in A.I.D. internal controls, especially if there are Missions which have not done thorough assessments. RIG/A/Cairo Audit Report No. 6-263-87-10 (March 12, 1987) stated that the Mission had only partially assessed a few of the 45 host country contracting agencies in accordance with the requirements of the payment verification policies. However, the current requirement (Mission Order No. 5-4) for increased involvement by the Contracts Office in Host Country contracting, should help to provide sound assessments.

- 4/ We agree that Mission management was aware of the need for a PACD extension. However the omission of reporting this condition in the quarterly implementation

report affected the report's usefulness as a tool for keeping A.I.D./Washington informed about the status of this project. For this reason it would be beneficial for the Mission to establish an internal control procedure to ensure the accuracy of these status reports.

- 5/ For this condition we believe that the Mission should have a system in place that ensures that changes in implementation are reflected, as needed, in appropriate schedules.
- 6/ The fact that this had not been accomplished after several years of project implementation reflects a weakness in the Mission's internal control system for detecting significant implementation delays.
- 7/ Agreed.
- 8/ Agreed.
- 9/ The Mission reported only one out of the four internal control weaknesses identified in this report. The clarifications added to the text of this report explain why these are material instances of weakness in internal controls.



## UNITED STATES AGENCY for INTERNATIONAL DEVELOPMENT

CAIRO, EGYPT

MEMORANDUM

August 23, 1990

To: Leo Deege, RIG Audit Manager

From: John B. Saccheri, DR/UAD

Subject: Provincial Cities Development (PCD) Project;  
Project No. 263-0161.3;  
Audit Objectives

This is in response to your memorandum dated 7/17/90 which informs DR/UAD of the objectives identified by RIG for subject audit. Your memo also requests that we provide a description of the internal controls applicable to the audit objectives. As requested, described below are the internal controls established by DR/UAD for the project which are designed to help us gauge progress toward achievement of project goals and objectives. Please note that only project specific controls are described below. Because they are common to all projects, several generic type USAID internal controls such as Mission portfolio reviews, Project Committee meetings, controller reviews and others were excluded from this report.

Also, please find attached the organizational structure of the PCD project, the project internal organization in UAD and the functional project organization as well.

1. Project Goal & Objectives:

The project goal is to assist the GOE to provide for basic human needs, primarily water and wastewater services, in their secondary cities. In addition, by the use of the Governorates and Cities as implementing agencies, it is anticipated that this project will assist the GOE achieve its objectives in financial and administrative decentralization.

2. Project Purpose:

The primary purpose of the PCD project is to improve and expand the water and wastewater systems of the cities of Fayoum, Beni-Suef and Minia. The secondary purpose of the project is to improve the capacity of these three cities in order to plan, implement and maintain urban infrastructure systems. In order to fulfill these purposes, Basic Service Needs (BSN) Plans were developed for the three project cities. The BSN Plans include a major project activity and a

subproject activity. The major project activity includes the design and construction of three Water Treatment Plants, nine elevated tanks and related components. GOE's Implementing Agency, the National Organization for Potable Water and Sanitary Drainage (NOPWASD), has engaged the U.S. firm, L\*A Water Treatment Corporation (L\*A WTC) for the design and construction of major activity elements through competitive bid procedures. The subproject activities include upgrading, rehabilitation and expansion of water and wastewater systems in the three cities. The construction activities of this subproject activity are being implemented by the cities under the Fixed Amount Reimbursement (FAR) System. To implement these subproject activities, the Provincial Cities are engaging local design and construction firms.

3. **Implementation Entities:**

There are four implementing entities responsible for project activities. These entities are the three project cities and NOPWASD. The three cities are responsible for the implementation of the FAR-financed subprojects. The cities have authorized NOPWASD to function as their GOE contracting agency for the implementation of the Design/Build Contract.

4. **Internal Control:**

The general internal control objectives of the Provincial Cities Development (PCD) project are:

1. Achieve the stated project goal and purpose as stated in the project paper and project agreement, both as amended; and.
2. Implement the project within applicable USG and GOE laws and regulations;
3. Work toward achieving the Provincial Cities' master plan and Basic Service Needs (BSN) plans.

Contractor Arrangement:

A U.S. Consulting firm, the Joint Venture of James Montgomery and Harza Engineering Company, was engaged under a USAID Direct Contract to function as the Construction Manager and is the agent of NOPWASD on the implementation of the Design/Build (D/B) Contract with L\*A WTC. Three AID FSN Engineers provide technical assistance to the three project cities in the planning, design, and management of the FAR-financed subprojects activities. The designs of these subprojects are prepared by local engineering firms hired by the cities. USAID FSN Engineers review the adequacy of these designs to ensure (1) that they are consistent with the guidelines

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stated in the cities water and wastewater master plans that were prepared for the project, and (2) that they are in accordance with the requirements of the BSN Plans.

USAID FSN Engineers provide technical support to the cities to implement the FAR-financed subprojects. Through these TA efforts, they monitor the implementation and progress at the cities level. They also provide guidance to the cities and inform USAID of problems and issues regarding subprojects implementation progress.

Management Information:

Following is a summary of information sources and monitoring activities that provide internal control to the PCD project:

a. Reporting Requirements:

1. Monthly Progress Reports issued by the CM to cover the activities of the Design/Build contract describing the construction progress and related D/B contract support functions.
2. Semi Annual Progress Reports issued by the CM, covering the D/B contract. The report summarizes the activities which have occurred over the previous six month period.
3. Monthly progress photographs - these are issued each month by L\*A WTC in a board form, covering the three main sites in the three cities, including a plan of each site, noting where the photographs were taken.
4. Monthly progress reports issued by the local engineering firms, employed in each of the three cities to supervise the work on the subprojects.

b. Minutes of Special Meetings:

1. Project Steering Committee (PSC) holds meetings every three to six months to discuss the progress in the construction program. This committee consists of the three governors, the senior of which serves as chairman, the three mayors, and representatives from the Ministry of Finance, Ministry of Planning, Ministry of Local Government and Ministry of International Cooperation. The minutes of these meetings are formally recorded and distributed to all participants.
2. Bi-weekly Project Review Meetings are held on a rotational basis between the three sites. They are hosted by the CM and attended by L\*A WTC, NOPWASD and USAID. Formal minutes are prepared and signed by the participants for the record. Participants of these meetings review project progress, both past and present review forward D/B contractor planning and resolve outstanding contract problems.

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3. Weekly meetings normally held on Sundays between NOPWASD, CM and USAID to discuss Change Orders and Progress Invoices. Their status is reviewed and action taken as required. Minutes of these meetings are recorded by the CM and follow-up work is carried out by the respective parties.
4. Weekly meetings, normally held on Saturday in Fayoum, between the CM and L\*A WTC to discuss change orders development and status. Summaries are issued by both L\*A WTC and the CM. These meetings are monitored by USAID, the CM and L\*A WTC to ensure appropriate change order follow-up.

c. USAID Monitoring:

1. Weekly field trips are made by USAID engineers to the sites of the Main Projects and the Subprojects in the three cities. During their respective visits, they contact the CM, local consultants, contractors, city government personnel to maintain a constant surveillance over PCD work activities, ensure that progress is being made and that construction is performed in accordance with design specifications. Verbal and/or written reports are provided as necessary to USAID office staff upon completion of each trip.
  2. The CM issues Design Implementation Summaries for the D/B Contract to NOPWASD and USAID on a regular basis. These summaries not only provide a current status regarding design, but also indicate problem areas which may hinder progress. They are used to expedite the consistent flow of design drawings to the three project sites.
  3. The CM holds weekly briefings with USAID, usually on Sundays. Design and construction progress is discussed as well as special D/B contract issues and problems. Actions are planned so as to maintain an efficient flow of the overall D/B Construction program. An important objective of these briefings is to make an effort to resolve issues before they become problems.
  4. AID continually monitors the progress of the USD and LE monthly progress invoices issued by L\*A WTC. This monitoring activity not only is to insure prompt payment of the invoices, but to compare invoices against projected cash flows as progress indications for the project. They relate to both construction progress and procurement of materials and equipment.
  5. L\*A WTC issues updated construction schedules on a monthly basis. These form a valuable tool to monitor progress and maintain an overall picture of current and projected project status.
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6. Frequent coordination meetings are held by USAID with GOE implementing agencies, contractors and engineers in the three cities to coordinate the activities of the Main Project with those Subprojects in each city, and to maintain an efficient system by removing constraints as to occur.
7. AID Project Engineers assigned to the Subprojects continually review designs, estimates, reports, bid documents, and contracts to provide concurrence with AID regulations and to insure that proper and current progress is maintained on the various subprojects in the three cities.
8. AID Project Engineers also monitor procurement activities in each of the three cities with respect to the subprojects as an indicator of progress and also to insure that proper and efficient procedures are implemented so as not to delay progress.
9. General monitoring of City Water and Wastewater Dept. activities is also carried out on a continuous basis by AID engineers assigned to the subprojects to insure conformance by the cities with the FAR Agreements with respect to time, cost and adherence to specifications.

d. NOPWASD Monitoring:

1. NOPWASD has assigned a resident engineer at each site to work with M-H on daily basis. They are involved in quality assurance and progress payments verification.
2. M-H reports, presentations and progress reports.
3. NOPWASD staff reviews of the project progress and monitoring information with the CM.
4. USAID and NOPWASD formulation of joint-action to resolve problems to maintain the orderly progress of the D/B Contract.
5. LE Pound invoices certified by M-H for L\*A WTC Contract. These invoices along with US Dollar invoices display as-built status of D/B contract work by L\*A WTC. CM certifies these LE Pound invoices and NOPWASD reviews and approves these for payment.

e. Cities Monitoring:

1. Through their local engineering firms, the Provincial Cities manage the construction work of the subprojects by local contractors hired through competitive bidding by the respective cities.

2. The cities provide the Egyptian Pound Funding Contributions to NOPWASD for the payment of L\*A WTC LE Pound portion of the D/B Contract.
3. The cities coordinate through NOPWASD the progress of the D/B contract. The cities have assigned city engineers at each of the project sites to assist NOPWASD in monitoring D/B contractor activities.

f. Construction Management Controls:

1. Provide construction management (CM) services for the D/B contract in accordance with the scope of work detailed in their Contract with USAID. This scope of work reflects the CM needs and other requirements set forth in the IFB for the Host Country Design/Build Contract between NOPWASD and L\*A WTC.
2. The CM maintains a permanent staff consisting of a Resident Engineer and a Deputy Resident Engineer at each of the three sites to implement the necessary controls as set forth in their contract with USAID.
3. The CM maintains a system of daily reports and logs at each site to reflect work accomplished, as well as all materials and equipment needed for the job.

g. Documentation:

Following is a summary of the documents, in addition to the applicable USG laws and regulations and USAID handbooks, that assist USAID, GOE and the contractors in project implementation. Before IFBs, contracts and FAR agreements are issued/signed, they are reviewed by USAID, and modified as required, to ensure that they meet the general internal control objectives of the PCD project.

- a. The PCD water and wastewater master plans for each city. These master plans were developed in 1986. They include the population projections of the three cities up to year 2020 and the water and wastewater (W&WW) services to be constructed to meet their requirements up to the year 2020.
- b. The cities BSN plans. These high priority plans were developed from the Cities W&WW master plans. These plans identify the activities that are financed by the PCD Project funds.
- c. L\*A WTC Contract with NOPWASD. This contract includes the IFB as amended, L\*A WTC technical and financial proposals, the letters of clarifications, and other contract elements.

- d. D/B Contract implementation schedule. The original schedule is included in L\*A WTC's contract. This schedule is updated by the contractor as needed, and reviewed and approved by the CM, Montgomery-Harza.
- e. L\*A WTC cash flow. The contractor's originally submitted cashflow is being updated as required, reviewed and approved by the CM in accordance with the implementation schedule, as updated.
- f. FAR Agreements with the cities on FAR-financed subprojects. These documents are agreements signed between USAID and the project cities. They include provisions for the control and the implementation of design and construction of subprojects, their financial requirements and the dates for the reimbursements of USAID funding contributions to the cities.
- g. AID-Direct Contract with Montgomery-Harza. This contract, as amended, includes the scope of work of the CM, names of the key personnel and the monthly billing rates of M-H staff involved in the implementation of the D/B contract.
- h. Project Paper and Project Agreement as amended and agreed upon conditions, covenants and other requirements.
- i. US Dollar Invoices certified by Montgomery-Harza for L\*A WTC Contract. These progress invoices reflect the as-built status at the work sites of L\*A WTC. The CM certifies these invoices, NOPWASD approves them, and forward them for USAID review, approval and payment.
- j. US Dollar invoice of CM contractor. These progress invoices of M-H indicate the CM's level of effort to implement the scope of work and all conditions of his contract, as amended.

Clrs:

DR/UAD:MWissa(draft)

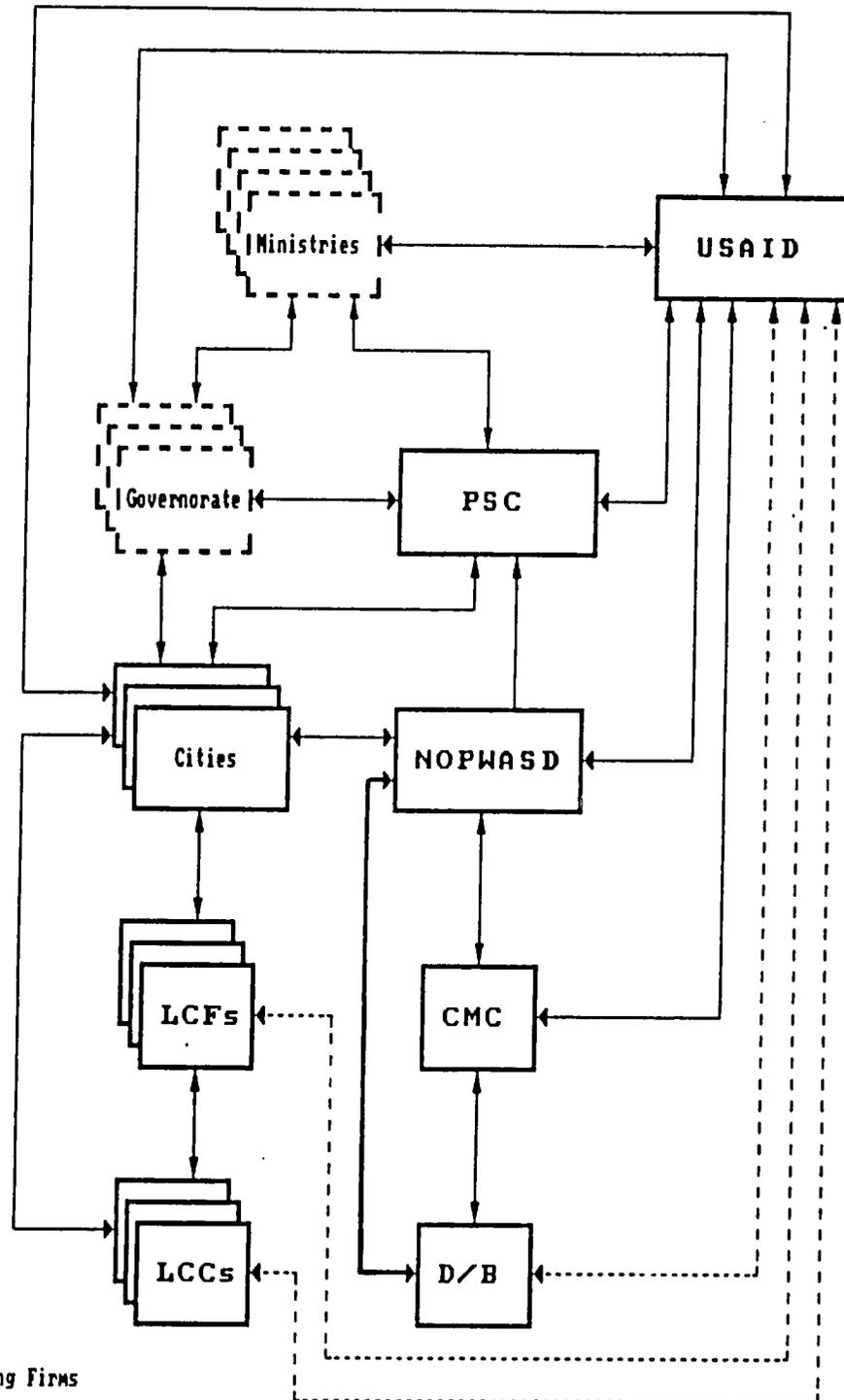
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# PROVINCIAL CITIES DEVELOPMENT PROJECT

## Organizational Structure



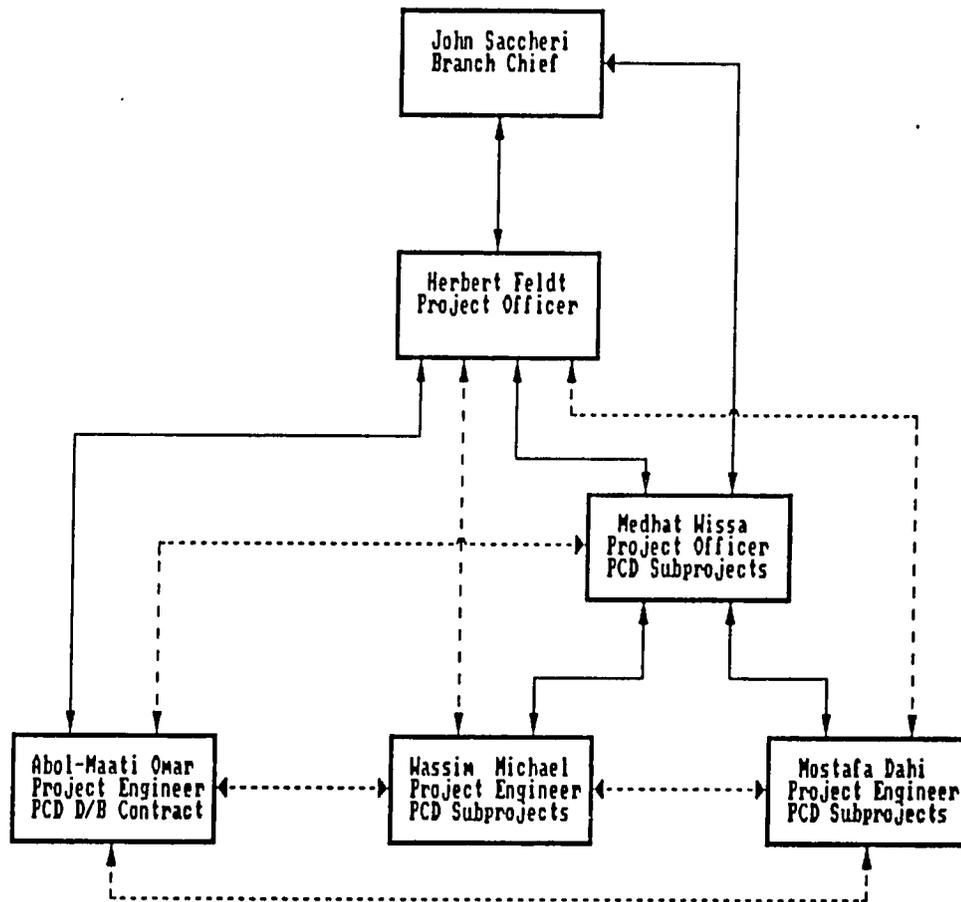
- LCFs Local Consulting Firms
- LCCs Local Construction Contractors
- PSC Project Steering Committee
- CMC Construction Management Contractor
- D/B Design / Build Contractor
- Direct Relationship
- Indirect Relationship

51'

United States Agency for International Development  
Development Resources  
Urban Administration & Development

# PROVINCIAL CITIES DEVELOPMENT PROJECT

## Project Internal Organization

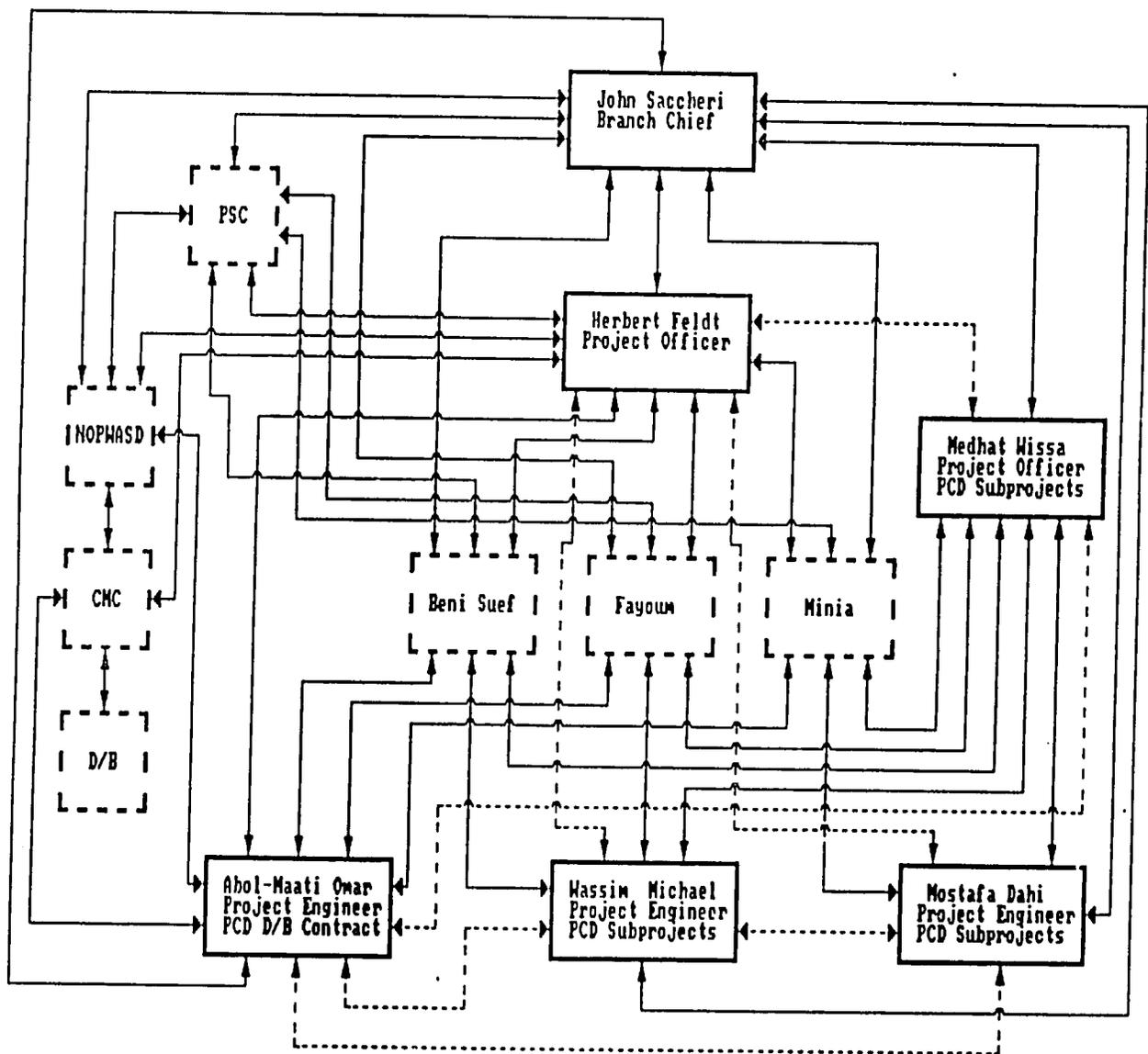


- Direct Relationship
- Indirect Relationship

United States Agency for International Development  
 Development Resources  
 Urban Administration & Development

PROVINCIAL CITIES DEVELOPMENT PROJECT

Functional Project Organization



- Direct Relationship
- Indirect Relationship

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