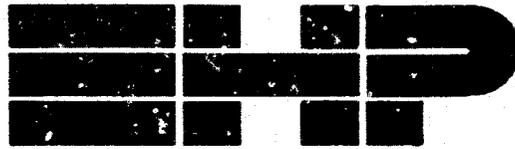


ISBN 97298



ENVIRONMENTAL HEALTH PROJECT

ACTIVITY REPORT

No. 11

**ACTION PLAN
Institutional Development for Water and
Wastewater Utilities in the Governorates
of Fayoum, Beni Suef, and Menya**

Provincial Cities Development Project, Egypt

September 1995

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**Prepared for the USAID Mission to Egypt
under EHP Activity No. 173-RC**

**Environmental Health Project
Contract No. HRN-5994-Q-00-3037-00, Project No. 936-5994
is sponsored by the Bureau for Global Programs, Field Support and Research
Office of Health and Nutrition
U.S. Agency for International Development
Washington, DC 20523**

CONTENTS

ACKNOWLEDGMENTS	iii
EXECUTIVE SUMMARY	v
1 INTRODUCTION	1
1.1 Background	1
1.2 Purpose for Transforming Utilities	1
1.3 Action Plan Goals	2
1.4 Activity Areas for Transformation	3
2 ACTIONS REQUIRED THROUGHOUT THE TRANSFORMATION PROGRAM	5
2.1 Transformation Design	5
2.2 Restructuring for Organizational Autonomy	5
2.3 Corporate Planning	6
2.4 Administrative and Personnel Systems	8
2.5 Financial Systems	8
2.6 Commercial and Consumer Systems	9
2.7 Operations and Maintenance	11
2.8 Staff Development and Training	11
3 IMMEDIATE ACTIONS TO PROVIDE A BRIDGE TO THE TRANSFORMATION PROGRAM	13
3.1 The Bridging Time Period: Preparing for the Transition	13
3.2 Objectives and Actions for the Bridging Period	13
3.2.1 Restructuring for Organizational Autonomy	13
3.2.2 Corporate Planning	14
3.2.3 Administrative and Personnel Systems	15
3.2.4 Financial Systems	15
3.2.5 Commercial and Consumer Systems	16
3.2.6 Operations and Maintenance	18
3.2.7 Staff Development and Training	18
3.3 Action Plan Review Comments, Commitments, and Requests for Technical Assistance by the Three Governorates	19
3.3.1 Fayoum	19
3.3.2 Beni Suef	20
3.3.3 Menya	21

3.4	Priority Actions	22
3.5	Conclusions	23

ACKNOWLEDGMENTS

The EHP team appreciates the helpful assistance of Adel Halim, Mostafa Dahi, and Thomas Marr of the USAID staff. Without their persistent efforts to contact government officials, attend all workshop and review meetings, and provide continual feedback and advice, the job would have been less successful, and considerably more difficult.

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EXECUTIVE SUMMARY

USAID/Cairo requested the Environmental Health Project to assess the current institutional arrangements for water and wastewater utilities in the governorates of Fayoum, Beni Suef, and Menya and to recommend the most appropriate institutional options. EHP carried out this activity from April to September 1995. The assessment and analysis of potential options is found in a companion report (*Findings and Institutional Options for Future Management of Water Supply and Wastewater in the Governorates of Fayoum, Beni Suef, and Menya*, EHP Activity Report No. 10). This "options report" describes the actions needed to implement the recommended options. The third report (*Summary Report: Institutional Development for Water and Wastewater Utilities in the Governorates of Fayoum, Beni Suef, and Menya*, EHP Activity Report No. 12) summarizes the activity and highlights key issues.

This action plan provides a road map for both the long- and the short-term transformation of the current water and wastewater services in each of the three provincial cities into unified, modern water and wastewater utilities. These actions were reviewed with the governorates of Fayoum, Beni Suef, and Menya with a particular focus on the short-term bridging time period. The review process was well received, positive, and forward-looking. These efforts contribute to the final stages of the Provincial Cities Development (PCD) Project and are designed to indicate future actions to operate and maintain infrastructure and sustain efforts begun under that project.

A presidential decree for the formation of economic authorities for water and wastewater to serve the full governorates of Fayoum, Beni Suef, Menya, Aswan, Dakahlia, Gharbia, and Sharkia was signed and issued on September 4, 1995. When this development was announced to the team by the governor of Beni Suef, the governorate staff observed that USAID deserved a great deal of credit because the assessment for institutional options created high-level interest and stimulated a desire to prepare the governorates for the future.

Purpose and Goals

The activities described in this action plan aim to create fully functional water and wastewater utilities in the selected governorates to meet the health needs of the Egyptian people for safe, affordable drinking water and proper sanitary waste disposal. An important outcome for both Egypt and USAID is to protect the considerable investment in physical works incurred in the PCD Project over the past thirteen years.

Specific targets and objectives, outlined in the action plan, are designed to achieve the following outcomes:

- Sustainability
- Financial and commercial viability
- Managerial delegation
- Operational autonomy
- Modern utility structure and organization
- Corporate planning
- Consumer relations and public information

Activity Areas for Transformation

While recognizing that any transformation strategy requires the simultaneous engagement of all parts of the organizational system, targets and activities can be identified in specific organizational subsystems. The work plan specifies actions in the areas listed below.

- **Restructuring for organizational autonomy.** This includes all activities leading up to the formation of a new water and wastewater utility. Once the utility has an initial organizational charter and legal status, restructuring activities may include creating an organizational structure, preparing job descriptions, and setting up a personnel system.
- **Corporate planning.** This activity area is designed to establish an ongoing capacity for short- and long-range strategic planning and to set up a spearhead unit working for the executive director and the board of directors to accomplish organizational change.
- **Administrative and personnel systems.** Modern utility management uses performance measures to organize staff responsibilities. Performance management means that all major work activities will need to be studied and performance indicators designed. All job positions will require classification, and a manpower study and plan will need to be developed. Personnel policies and procedures will need to be established to provide the incentives and the personnel management structure for flexible and responsive management.
- **Financial systems.** For each water and wastewater utility to develop the capacity to operate as a business rather than a social service will require a transition to modern accounting and financial management. Primary goals for systems development include automated billings, easily maintained files and records, and access to the financial data needed to assist management with decision making.
- **Commercial and consumer systems.** New commercial systems will need to be set up so that customers receive bills and make payments on a timely basis, for cash flow purposes. Because the new utilities will be operating as commercial enterprises, cost-effectiveness measures will need to be designed into their systems. The utilities will need to develop new ways of interacting with and educating consumers, based on a customer service approach.
- **Operations and maintenance.** The activities in this category will result in a long-term program to ensure that all equipment is operating efficiently, with preventive maintenance systems in place. Objectives include efficient operations for production and treatment plants (process control) and maintenance of quality standards. O&M activities also include attention to the distribution network and the development of leak detection and water loss prevention programs.
- **Staff development and training.** This activity area is designed to ensure that workers have the necessary skills. It includes developing a training capacity (and the ability to access training resources). Initially, a core group of committed senior managers with solid managerial experience and the understanding and skills for modern utility management will need to be

created and supported. A senior management development program is anticipated for the first several years of the transformation process.

Specific objectives and suggested actions in each of the above areas are detailed in Chapters 2 and 3.

Priority Actions

The team believes that all of the actions identified and reviewed by the governorate staff are essential to achieving progress for the water and wastewater sectors. It is especially important that completed water treatment plants operate with local staff resources and that the gains that have been made are sustained. During the next year, it is recommended that priority be given to two areas, as explained below.

The first area is the demonstration of a positive commitment by the newly emerging organizations to **cost savings and financial management**. Action items include:

- Decreasing the amount of unaccounted-for water
- Increasing collections
- Setting up a financial management system

The second major area is the preparation of staff to work as managers in a commercial organization rather than a social services organization. The recommended action is to provide a **beginning management development program** so staff understand the essentials of commercial utility management and begin to develop a vision of, and some essential skills to manage, a commercial water and wastewater enterprise.

Conclusions

Reviews by each governorate of the recommended short-term actions to create a unified local water and wastewater utility were positive and forward-looking. This was particularly true of the working-level staff in each governorate. Bridging action priorities have been defined, and, it is hoped, will be supported within the context of the last year of the Provincial Cities Development Project. The fact that the Government of Egypt issued a presidential decree forming the structure for new general economic authorities in the provincial cities is a very important and hopeful sign.

The third report in this series describes proposed monitoring activities and indicators over the life of the institutional strengthening process, as well as important follow-up for the next year.

1 INTRODUCTION

1.1 Background

The USAID Cairo Mission requested the Environmental Health Project (EHP) to conduct an assessment and recommend actions to assist the three governorates of Fayyum, Beni Suef, and Menya in their efforts to transform their potable water and wastewater organizations into financially viable, autonomous, self-sustaining entities. These efforts are part of the final stages of the Provincial Cities Development (PCD) Project and are intended to indicate future actions to operate and maintain infrastructure and sustain efforts begun under that project. EHP conducted this activity from April to September 1995.

A companion "options report" (*Findings and Institutional Options for Future Management of Water Supply and Wastewater in the Governorates of Fayoum, Beni Suef, and Menya*, EHP Activity Report No. 10) provides an assessment of the systems existing in the three governorates and discusses potential institutional options for their future management, operations, and maintenance.

While the options report provides detailed discussion on the issues, constraints, and recommendations for each governorate, this report describes the specific actions required in the immediate (one-year) and intermediate (five- to seven-year) time frames to achieve the transformation required for viable future

utility management. The institutional option recommended, and for which these activities are designed, is the general economic authority. A detailed description of the organizational form of the economic authority is provided in the options report cited above.

1.2 Purpose for Transforming Utilities

The people of Egypt need access to safe, affordable water and sanitation. Current systems to manage the provision of these services are very deficient. The activities described in this action plan are designed to create functioning, unified water and wastewater utilities in the selected governorates. It is important for both Egypt and USAID to protect the considerable investment already made in physical works in the PCD Project and build upon the success of the past thirteen years.

USAID has set the following as minimum requirements for the future utilities, after improvement efforts are implemented over several years:

- The capacity to make investment and borrowing decisions and to retain revenues collected.

- The capacity to select, remunerate, develop, and promote staff, without the burden of existing civil service regulations.
- The authority to charge agreed-upon tariffs for water and wastewater services and to recover at least the operations and maintenance costs.

1.3 Action Plan Goals

The action plans that follow are designed to serve several purposes. First, goals and major actions are presented for the complete transformation of the current water and wastewater services to single utilities over a five- to seven-year period. Second, a short-term (one-year) set of bridging activities are presented that are designed to prepare the way for the longer-term program and for possible project activities. Each program is presented generically and is tailored for each governorate. Individual variations and comments on short-term actions are presented below in section 3.3. Any detailed design for project activities for each governorate will require follow-up study by USAID.

The action plan outlines specific targets and objectives to achieve the goals that have been determined. Overall, the action plan targets and objectives are designed to achieve the following outcomes:

- **Sustainability.** Utilities should be economically self-sufficient and institutionally and financially autonomous, with the capacity to operate, maintain, and manage water and wastewater utilities and to plan and adapt to changing market and population conditions.

- **Financial and commercial viability.** Utilities should be fully funded from retained revenues, with fees and tariffs established to meet cost-effective operations and maintenance needs. Tariffs should be structured within a program to offset system depreciations and provide financial renewal and replacement, consistent with national policies for gradual subsidy reduction.

The utilities should also be capable of establishing enforceable regulations that allow them to refuse service for nonpayment.

- **Managerial delegation.** Utilities should fully own and control the facilities. They should control the O & M budget, assets, and debts, and should be able to provide administrative services and support.
- **Operational autonomy.** The utilities should have authority to establish bylaws and regulations, particularly regarding the following:
 1. Wages, salaries, and incentives, to attract and retain qualified, experienced, and skilled workers.
 2. Establishment of a high-level management group with an understanding of and commitment to modern commercial management.
 3. Procurement, contracting, and commercial activities to meet the utility's efficiency and financial needs.
- **Modern utility structure and organization.** The utilities should be able to establish an efficient organizational

structure, with jobs and promotions based on performance standards. Utilities must be capable of altering organizational structures to meet changing service needs without delay or interference from higher government officials unfamiliar with commercial utility management.

- **Corporate planning.** Utilities need the capacity to conduct and/or manage short- and long-range plans to anticipate future demands for service and technical planning and studies. The corporate planning function should assist top management in developing and maintaining key management information and special improvement programs.
- **Consumer relations and public information.** The utilities must be able to interact positively with the local community. This includes interaction with political and other groups and building an efficient system for consumer relations. The utilities must provide appropriate consumer education and information regarding the use and conservation of water resources and the contamination of water sources.

1.4 Activity Areas for Transformation

While recognizing that any transformation strategy requires the simultaneous engagement of all parts of the organizational system, targets and activities can be identified in specific organizational subsystems, such as financial, operations and maintenance, and so forth. The team has divided the work plans into activity areas. All activities require the following inputs:

- Technical assistance (advice, skill transfer, expert activities to install new systems)
- Interventions by current utility managers to improve performance (executive decision making, team management, and performance management policies)
- Commodities (equipment such as computers and rehabilitation inputs)
- Systems development (policies and procedures, standards, work routines)
- Management and organizational restructuring activities (structural changes, decentralization)
- Training (team development and institutional strengthening, skill development, attitudinal change and conceptual formation)

The following activity areas are addressed in the action plans:

- **Restructuring for organizational autonomy.** This includes all activities leading to the formation of a new water and wastewater utility. Once the utility has an initial organizational charter and legal status, structuring activities may include a strategy for continued development, addition of reorganized *markez*¹ units, and

¹A *markez* is a political jurisdiction that exists as a subdivision of a governorate. A city, such as Beni Suef or Fayoum, is both a *markez* and a city. Each *markez* has an appointed chief and administrative staff. City mayors are appointed by the Prime Minister and are also chiefs of the *marakez*. (Note: the plural form of *markez* is *marakez*.)

continued organizational improvement. During the transition phase, activities are designed to define positions, create an organizational structure, and delineate the roles and responsibilities of all actors, including the board of directors.

- **Corporate planning.** This activity area is designed to establish an ongoing capacity for short- and long-range strategic planning and to set up a spearhead unit working for the executive director and the board of directors to accomplish organizational change.
- **Administrative and personnel systems.** Modern utility management uses performance measures to organize staff responsibilities. Performance management means that all major work activities will need to be studied and performance indicators designed. All job positions will require classification, and a manpower study and plan will need to be developed. Personnel policies and procedures will need to be established to provide the incentives and the personnel management structure for flexible and responsive management.
- **Financial systems.** For each water and wastewater utility to develop the capacity to operate as a business rather than a social service will require a transition to modern accounting and financial management. Primary goals for systems development include automated billings, easily maintained files and records, and access to the financial data needed to assist management with decision making.

- **Commercial and consumer systems.** New commercial systems will need to be set up so that customers receive bills and make payments on a timely basis, for cash flow purposes. Because the new utilities will be operating as commercial enterprises, cost-effectiveness measures will need to be designed into their systems. The utilities will need to develop new ways of interacting with and educating consumers, based on a customer service approach.
- **Operations and maintenance.** The activities in this category will result in a long-term program to ensure that all equipment is operating efficiently, with preventive maintenance systems in place. Objectives include efficient operations for production and treatment plants (process control) and maintenance of quality standards. O&M activities also include attention to the distribution network and the development of leak detection and water loss prevention programs.
- **Staff development and training.** This activity area is designed to ensure that workers have the necessary skills. It includes developing a training capacity (and the ability to access training resources). Initially, a core group of committed senior managers with solid managerial experience and the understanding and skills for modern utility management will need to be created and supported. A senior management development program is anticipated for the first several years of the transformation process.

2

ACTIONS REQUIRED THROUGHOUT THE TRANSFORMATION PROGRAM

2.1 Transformation Design

The desired result of transformation activities is to establish high performance water and wastewater services in the target cities. In addition to the efforts of staff within each local organization, changes will be required at the overall policy level of the sector. The leadership of the governorates, working with USAID staff, can help to bring about these changes at the national level. The actions recommended, described in the companion "options paper," include tariff and subsidy reform, a shift from central to local control, and policy reform for subsidies. These changes will support local initiative and responsibility.

The transformation of the utilities into fully operational modern utilities will require several years. Systems development and organizational change require concomitant changes in human and organizational behavior. New incentive and reward systems need to be developed that are not limited to remuneration, but also include job satisfaction, which can be created by establishing managerial and employee behavior standards that receive recognition and attention (both corrective and reinforcing) within the work culture. Many of these activities will require attitudinal and behavioral change. A new generation of management needs to be developed.

The objectives and actions provided below are the framework for overall, long-term transformation.

2.2 Restructuring for Organizational Autonomy

Objective: Completed objectives and activities in this area will result in the development of position descriptions that enable the restructuring of the current water and wastewater organizations into single core organizations. This will occur initially in the cities with new water treatment plants and will eventually include incorporation of all districts within the governorate to form the utility. The organizational foundation will be laid during the utility's first year of existence (the "bridging" year). These activities are described in Chapter 3 below. However, a considerable number of activities to expand and adjust functions will take place after the foundation year. Currently, there are no corporate planning, commercial, or training functions, nor is there a senior management team. To create departments not currently in existence will take time. Activities relating to role clarification and job design will continue throughout the life of the transformation. A recommended strategy is to begin the organizational improvements in the cities with new water treatment plants, capitalizing on the momentum created by the work of the PCD, and thereafter to extend the organizational improvements and structures to each markez within the governorate.

Actions:

1. Consolidate the required utility activities into an integrated structure, with clear job descriptions and roles and responsibilities. Design a management structure that allows open and rapid communication so that the new utility can perform as a commercial operation.
 - Conduct a study to establish the organizational structure so that commercial and operational functions are given prominence and reward within the system.
 - Design the required structural relationships and a plan to incorporate new branches and offices within the utility.
 - Submit the revised organizational structure from the board of directors to the Central Authority for Organization and Administration (CAOA) for review and approval.
 - Issue the approved organizational structure plan as a formal directive from the chairman of the board.
2. Prepare written, initial job descriptions and responsibilities for all senior positions.
 - Conduct the necessary job audits and manpower studies.
 - Develop job descriptions.
 - Submit job descriptions to the board for approval.
3. Obtain concurrence by the president of the CAO and receive official approval (unless it is within the scope of the new authority to be able to set structural and position descriptions without higher approval).
4. Obtain approval of the Ministry of Finance for job funding (unless delegated to the new authority).
3. Prepare personnel files and set up a personnel system for new staff.
 - Collect data on existing staff at facilities and in sections of the municipalities, marakez, and governorates. Inventory occupational grades, ages, qualifications, salaries, and education.
 - Design and adopt a plan for the official transfer of staff to the new authority.

2.3 Corporate Planning

Objective: The corporate planning department (or division) will need to be established under the executive director. This department will be responsible for developing annual operational plans and long-range strategic plans and for managing special programs, such as the management information system and selected problem-solving initiatives for troublesome performance areas. The objective is to set up this department and have it fully operational as soon as possible. This unit will serve as the primary counterpart to the technical assistance team. As technical assistance is phased out, the staff of this department will continue to manage ongoing institutional change within each organization.

Actions:

1. Form a corporate planning department. Include financial, technical, social-consumer, administrative, and information expertise. The board should nominate specific individuals who will form the nucleus of the corporate planning department (refer to chapter 3 for activities to establish this department). The department will be responsible for management information, budget development, annual operational planning, and strategic planning.
2. Design special programs for top management in the following areas:
 - Five-year financial plan.
 - A plan for the transfer of staff from existing departments to the new utility (see below).
 - A plan for the evaluation and transfer of assets and liabilities.
 - A phased plan for rate increases.
 - A plan for unaccounted-for water (see below).
3. Conduct regular planning exercises in the following:
 - Annual operational plans linked to a budget process.
 - Annual budget submitted to the Ministry of Finance.
 - A long-range strategic plan with regular updates every one or two years.
4. Design a management information system
 - Establish a management information system (MIS) responsible for regular monitoring and performance evaluation, based on a system of performance indicators for all major recurring activities (water quality, billing and collection, consumer complaints, cost-effectiveness in energy [electric bills], etc.).
 - Set up a performance indicator system with management by deciding what information should be regularly monitored, and for what purpose. Collect and analyze the performance data required and set up recording mechanisms.
 - Train senior and supervisory staff in how to review, understand, and make choices on the basis of the performance data. One primary indicator of task accomplishment in this area will be the capacity of staff to analyze accurate monthly reports.
5. Diagnose specific performance problems under the guidance of management and conduct strategic programs to correct deficiencies.
 - Conduct annual and ongoing problem diagnosis activities.
 - Provide senior managers with ongoing information and training opportunities in utility management.

2.4 Administrative and Personnel Systems

Objective: Set up computerized record-keeping, stores and supplies, and acquisitions and procurement. Plan and develop new regulations and procedures for board approval. Establish bylaws for internal regulations for personnel, procurement and selling, contracting, stores, and record-keeping and filing. Establish other regulations as needed. Develop an institutional library.

Actions:

1. Study existing administrative systems (listed above as *record-keeping, stores and supplies, and acquisitions and procurement*), collect data on regulations implemented in similar organizations, and carry out an administrative systems development program.
 - Prepare a draft of proposed regulations for board review and adoption.
 - Issue the new regulations.
 - Train staff and begin implementation of the new regulations.

Objective: Set up a personnel management and record-keeping system.

Actions:

1. Develop performance indicators for all staff. Develop a performance review program and train supervisory staff in procedures for annual performance evaluation based on indicators. Use the process to determine promotion, exceptional salary increases, bonuses,

incentives, etc. These actions should be documented in the form of a personnel management information system and should be included in a personnel policies manual.

2. Develop a personnel policies manual that is accessible and understandable to all managers.
3. Develop a manpower plan to establish positions required and to predict manpower needs over time.
 - Conduct work measurement analysis of the authority's activities within the organizational structure.
 - Write any new position job descriptions and required performance standards. Include analysis of performance standards, work load, and job specifications.

2.5 Financial Systems

Objective: Provide the utility organization with the capacity to understand its current financial status. Establish the capacity to produce monthly, quarterly, and annual financial status reports. Design and install an upgraded accounting system to manage a commercially operated utility and determine the unit cost. Financially control the facilities, O&M budget, assets, and debts with a computerized accounting system. Provide the systems and capacity required for cost-center management for selected functions and geographically based service installations.

Actions:

1. Establish a system for cost accounting, starting with the USAID-funded water treatment plants as examples for implementing cost accounting in the plants, and provide information for this purpose. Evaluate the experience and generalize the system to all other facilities. The following activities are required:
 - Nominate an accountant assigned to keep the books and project O&M expenses and compare them with water production costs.
 - Collect information, in cooperation with the accounting department, on the amount of all O&M expenses in all facilities (material, spare parts, fuel, power, wages, allowances, etc.).
 - Analyze expenses for different facilities and services.
 - Add other indirect expenses.
 - Determine the cost per unit for each service (actual).
 - Determine planned improved cost per unit for each service (standard).
 - Present periodic financial reports on O&M expenses and water production.
2. Organize the finance and accounting department.
 - Set up a computerized system.
 - Develop a filing system.
3. Establish a five-year phased plan for tariff restructuring, in cooperation with the corporate planning department.
4. Prepare a plan for transfer of assets and liabilities, as follows:
 - For each city and village, prepare information on the assets and liabilities belonging to water and wastewater utilities in agreement with the chief of the local unit (treatment plants, network, vehicles, buildings, stores, furniture, etc.).
 - The governor issues a resolution that estimates the value of the transferred assets and liabilities and defines the authority's share capital until revaluation procedures, authorized by Minister of Finance resolutions, are undertaken.
 - The chairman of the board requests the Minister of Finance to form committees to evaluate the assets and liabilities to be transferred to the organization.

2.6 Commercial and Consumer Systems

Objective: The task of this activity is to reorganize and develop the water revenue department (e.g., staffing procedures, computerization). The most important outcome is the establishment of a commercial system that efficiently manages billing and collection and service installation and cutoff. The objective is to produce equitable, responsive, and reliable customer service. Commercial activities should allow the

accounting of water consumption and should enable communication with consumers.

Actions:

1. Organize and set up the commercial functions.
 - Form a task force to implement a program for collection of arrears.
 - Set up a meter rectification and repair program (in conjunction with the operations and maintenance department).
 - Develop meter reading procedures.
 - Develop a computerized billing system.
 - Identify the top consumers and the most important accounts in arrears; collect arrears aggressively.
 - Establish indicators to measure improvements and decide on incentives for achievements.
 - Establish enforceable regulations that will authorize the utility to refuse service for nonpayment.
 - Monitor performance indicators weekly and monthly.
2. Establish a consumer relations function; organize the consumer service department.
 - Examine current complaints and develop procedures to respond to consumer requests within a minimum time period.

- Set up a system for monitoring consumer requests and complaints.
 - Provide appropriately skilled, service-oriented staff.
3. Review consumer complaints, inquiries, and questions. Identify responses and set targets for performance. Begin with those items that are easily identifiable.
 - Facilitate consumer contacts by identifying easily accessible locations throughout the utility service area.
 - Assist in solving consumer problems with the utility.
 - Periodically assess consumer reactions and level of satisfaction with their interactions with the utility.
 - Produce and provide information manuals to consumers on the various elements of water and wastewater service that affect them.
 - Participate in studies for planning work space and layout of consumer relations offices.
 4. Set up a consumer education program.
 - Develop essential messages that should be communicated to consumers about the water and wastewater organization. Set up and conduct information and education programs for targeted populations (school children, mothers, and industrial customers and other large users).

2.7 Operations and Maintenance

Objective: Develop reliable preventive maintenance, process control systems, and procedures for maintaining distribution and collection networks. Ensure that all process control, equipment, and distribution network facilities are operating within the standards set for efficient operations.

Actions:

1. Train staff in the O&M of all systems where performance problems are related to knowledge and skills.
2. Set up a standard operating procedures (SOP) program and maintenance routines for all equipment, tools, rolling stock, laboratories, and grounds and work areas.
3. Set up a preventive maintenance program.
4. Train senior O&M managers to prepare budgets and forecast needs.
5. Establish a work order program for all technical tasks.
6. Automate all of the O&M systems (preventive, SOP, and work order).
7. Design and conduct continuous water loss and network surveillance and correction, and assist the commercial department in development and conduct of the unaccounted-for water program (leak detection and network and meter rectification program).
8. Set up and automate a mapping program for all pipe grids and related connections within the network.

2.8 Staff Development and Training

Objective: Develop the capacity within the organization to maintain staff performance standards and ensure a motivated and skilled workforce. Ensure that leadership and staff are stimulated to learn new ideas and have the opportunity for continued improvement. Set up the training function for these purposes and provide staff with a program for skills development appropriate to performance standards in all job categories. Provide training to assist management in meeting its goals for cost-effective operations.

Actions:

1. **Department formation:** Identify and nominate personnel to work as training officers. Preferably, the training department will work under the direction of the corporate planning department during the initial years to stress the importance of staff development.
2. **Training needs assessment:** Undertake annual surveys by the training officers, with the advice of a consultant training advisor, to assess the authority's training needs. This survey should address the areas of greatest need for utility performance. It should help with the design of future training activities.
3. **Training plans:** Establish a short-term immediate training plan focused on the change of the water and wastewater services from activities operated by a local government entity to economic and commercially oriented utilities operated by an autonomous body. Preliminary needs identification includes the following:

- Training of managers in improved managerial skills.
 - Team work and communication skills for team members.
 - Technical and hands-on training in operations, maintenance, and process control.
 - Network maintenance, fittings, and meter installation and repair.
 - Motor and pump equipment maintenance and repair.
 - Record-keeping.
 - Computer-use.
 - Consumer relations.
 - Accounting, bookkeeping, and commercial systems.
 - Personnel management.
 - Training of trainers.
 - Training for personnel whose jobs will change.
4. **Training programs:** Publish and provide an annual calendar of training events and arrange training for all personnel, giving priority to the areas of critical need. Training should include on-the-job approaches (such as internships) and attendance at existing training programs in other institutions, as well as specific programs designed to improve utility performance.
 5. Establish a management improvement program.
 - Design and develop a program that will provide ongoing training to senior staff in modern management techniques.
 - Conduct at least two training events for senior staff each year for five years.

3

IMMEDIATE ACTIONS TO PROVIDE A BRIDGE TO THE TRANSFORMATION PROGRAM

3.1 The Bridging Time Period: Preparing for the Transition

The overall objective of the bridging time period (approximately one year) is to *facilitate the changes required to transform water and wastewater service organizations from their current form to new, single utilities.*

A general description of the major objectives, actions, and activities required to prepare for a transition to new utilities is provided below for all three governorates. Where there are specific differences for individual governorates, note is made in 3.3, "Action Plan Review Comments, Commitments, and Requests for Technical Assistance by the Three Governorates."

Major priority actions in the bridging period are to:

- Define the legal structure and set up an official organization.
- Set up planning processes for the future (corporate planning).
- Begin cost saving and income enhancement efforts in operations, billings, and collections.
- Prepare and develop a core group of management leaders who will manage the

new organization and oversee developmental activities.

- Provide a basis for the future financial system.
- Operate and maintain all facilities to the highest efficiencies obtainable under existing constraints.

3.2 Objectives and Actions for the Bridging Period

3.2.1 Restructuring for Organizational Autonomy

Objective 1: Establish the legal structure for an economically independent, institutionally and financially autonomous organization.

Actions:

1. Form a transition planning committee to design and manage the transition year activities.
 - **Function:** This transition committee will form the nucleus of the future corporate planning function (a department of the new authority). During the transition period, the committee will plan the organizational transformation process and will

monitor its progress (see Corporate Planning, below).

- Committee members: The committee should consist of financial, administrative, and legal experts who work with counterparts from the governorate and municipal staff.

2. Prepare a draft presidential decree to establish an economic general organization within the Law no. 61/1963.

- Issuance of the presidential decree.

Note: A presidential decree for the formation of economic authorities for water and wastewater to serve the full governorates of Fayoum, Beni Suef, Menya, Aswan, Dakahlia, Gharbia, and Sharkia was signed and issued on September 4, 1995. As of this writing, the only remaining legality is to publish the decree in the official gazette. The governorate staff in Beni Suef observed that the activities by USAID to move ahead with the current assessment for institutional options created interest and stimulated actions to prepare the governorates for the future. The decree specifies the official positions that must be represented on each board of directors.

3. Form a board of directors

- The governor designates the chairman and key personnel of the authority named within the presidential decree and presents his nominations to the concerned authorities (Ministry of Local Authority and the prime minister)

- The decree to appoint the chairman and key personnel is issued by the governor.
- The chairman of the board requests the governor to nominate other external board members from the represented organizations.
- The organizations specified in the decree provide the authority with the names of their representatives on the board.
- A decree for the formation of the board is issued by the governor.

4. Determine a temporary location for the new authority.

- Determine space needs and a suitable temporary location.
- Obtain the necessary funding.
- Set up temporary offices.

Key Indicators of Success

- Transition/planning committee formed within one month.
- Board of directors formed within seven months.
- Temporary offices set up and in use within six months.

3.2.2 Corporate Planning

Objective: To create an overall plan to transform the authority into an independent autonomous

utility; establish the corporate planning function. Ensure that the organizational transformation process is planned and monitored.

Actions:

1. Develop a phased plan for the transfer of staff to the new authority. Identify which staff members need to be transferred.
2. Develop a phased plan for the transfer of physical assets to the new authority. Conduct an inventory of assets.
3. Oversee the financial systems development process. Develop and conduct a monitoring program.
4. Oversee the unaccounted-for water program activities conducted by the O&M section. Develop and conduct a monitoring program.

Key Indicators of Success

- Staff for the new organization identified and a plan in place for their transfer within one year.
- Plan for transfer of physical assets developed within six months.
- Meetings conducted by the steering committee to oversee transition activities at least once a month.

3.2.3 Administrative and Personnel Systems

Objective 2: Design an outline of the structure of the new authority. Develop a draft staffing and manpower plan for the start-up period. Enlist the

support of staff who will be transferred into the new authority and enlist the support of the affected organizations.

Actions:

1. Design the organizational structure.
2. Prepare position descriptions for all major officers (the six or seven top positions).
3. Design and conduct workshops to communicate with staff about new roles and responsibilities and to enlist their support in making the transition.

Key Indicators of Success

- Tentative list of staff to work in the central office of the new authority identified within six months.
- Preliminary organizational structure designed within six months.
- Position descriptions for key staff and board written within eight months.
- Workshops to communicate with concerned staff and organizations held within six months.

3.2.4 Financial Systems

Objective: To develop a detailed picture of the current financial status of water and wastewater services and develop a framework for a future system of budgeting and revenue forecasting.

Actions:

1. Estimate the costs required to operate and maintain the systems the authority will be required to manage.
 - Hire an accounting firm to work with the transition committee.
 - Develop a preliminary audit of the costs incurred during the past fiscal year of record for the Bab I and Bab II accounts for city and marakez water supply and wastewater systems. Array costs for water and wastewater separately.
2. Develop a preliminary chart of accounts.
3. Develop a budget for the next fiscal year.
 - The accounting firm hired in Action 1 above will prepare Bab I and Bab II budgets for city facilities for the next two fiscal years. To accomplish this task, the firm will use the preliminary chart of accounts and will incorporate information and data from physical audits (see section 3.2.6) and from the budgeting work already completed in the three cities by USAID's PCD consultants.
 - Summarize the budgeting methodology, including a description of how the preliminary chart of accounts was used, in a brief report. The report should be suitable for use as an instructional manual.
4. Open a special bank account for deposit of authority revenue and other income. During the transition year, establish a

special bank account within the Ministry of Finance to separate income accounts for the water authority.

5. Prepare a plan for the transfer of O&M funds (in cooperation with the corporate planning department) from the existing facilities in cities and villages to the new utility. (O&M funds include Bab I and II accounts.)
 - Prepare information on the funds allocated to the marakez facilities (separated from the funds for local units), including the amount spent and the remaining funds.
 - Prepare a budget for the remaining period of the fiscal year.

Key Indicators of Success

- Accounting firm hired.
- Preliminary chart of accounts completed.
- Auditing work completed.
- Budget estimates completed.
- Bank accounts opened.

3.2.5 Commercial and Consumer Systems

Objective 1: Determine what is needed to establish a modern, reliable billing and collection system that includes meter reading and commercial record-keeping. Begin commercial activities aimed at realizing increased income.

Actions:

1. Develop options for increasing collections and establishing the billing system.
 - Identify the largest 200 to 300 users billed from meter readings and check the status of their arrears payments. Repeat the examination for an equal number of the largest users billed from estimates. The billed amounts should be examined and customers contacted for collections and, if necessary, adjustments made to billed use levels.
 - Identify 100 large nondomestic users billed from estimates, and determine the feasibility of installing new or repaired meters for these users. Examine the feasibility of initiating a meter calibration program for 200 to 300 of the largest nondomestic users billed from meter readings. Initiate pilot programs for meter calibration.
 - Develop additional options for an aggressive collections system. These options should include:
 - a. Examining the feasibility of consumers paying bills at places other than governorate offices (i.e., to collectors, or at banks, post offices, electric company offices). Initiate a pilot program.
 - b. Examining the feasibility of turning over collections for all large users to a private firm or the electric utility.
 - c. Developing incentives for users who make prompt payments and

for collectors who accept payments at local stations or at consumers' doors.

2. Develop a general strategy for commercializing the water and wastewater utility. The strategy should include options for streamlining meter reading, billing and collection, computerization, and the use of outside organizations (public or private) for some or all functions.

Objective 2: Begin to develop a program for consumer relations and consumer education.

Actions:

1. Plan and design a public awareness campaign.
2. Begin to educate the public about the establishment of a new water and wastewater utility and what the consequences for consumers will be.

Key Indicators of Success

- Begin work on a program to immediately decrease accounts receivable.
- Increase the percentage of collections compared to billed revenues by at least 10% over a six-month period.
- List options for a future aggressive collections program.
- List strategies for a modern utility billing and collection system.
- Evidence of action completed to inform public.

3.2.6 Operations and Maintenance

Objective: Develop a framework for efficiency improvement in operations and maintenance. Maintain the level of operational efficiency and training provided by the PCD/USAID consultants. Operate the USAID-constructed facilities with a minimum of breakdowns and within water service standards during the transition period.

Actions:

1. Conduct a physical audit of the water and wastewater facilities to determine the general condition, status, and quality of O&M programs and the expenditures needed for effective system performance for all facilities within the city (excluding marakez systems).
 - Hire an engineering firm to conduct the audit and prepare a detailed report for all facilities, indicating immediate needs regarding spare parts, rehabilitation, and short-term training.
 - Conduct workshops to monitor progress and consider findings to date.
 - Provide selected short-term training interventions and a budget for spare parts, following the audit's findings.
 - Prepare a formal review of the audit report, indicating how the recommendations will be implemented.
2. Decrease the amount of unaccounted-for water by 5 to 10% through a water loss program that includes leak detection and meter rectification and repair.

- Design the water loss program and decide on a strategy for meter rectification and/or replacement. Estimate program costs.
- Train selected staff in leak detection.
- Begin a leak detection program.

Key Indicators of Success

- Firm hired to implement the audit.
- Workshops conducted to identify actions required by the audit team.
- Plan developed to implement the audit team's recommendations.
- Water loss reduction program implemented.

3.2.7 Staff Development and Training

Objective: Develop a core group of committed staff who will become the new managers of the authority. Help this group become aware of the essentials of utility management and the corresponding concepts. Develop a vision for the future and establish a basis for the long-term management development of staff.

Actions:

1. Assess skill levels. Conduct a training needs assessment.
2. Provide plant managers and key O&M staff with a short training program in the basics of utility management.

3. Provide senior leadership with a vision of future possibilities by conducting an introduction to utility management that includes on-site visits to existing water and wastewater utilities within Egypt and in other countries.

Key Indicators of Success

- Needs assessment completed and a list of priority training needs available to form the core design for making funding and design decisions about future training by the end of eight months.
- After implementation of the initial management program, key managers are able to articulate a vision for the future water authority and have formed a core group with ideas and plans for future utility management.

3.3 Action Plan Review Comments, Commitments, and Requests for Technical Assistance by the Three Governorates

The bridging actions described above were reviewed in full-day meetings with the leadership and staff of each governorate. The action plans were essentially accepted as reasonable and needed. During the review process, however, comments and commitments were made, as were requests for assistance in carrying out the actions. These are summarized below.

3.3.1 Fayoum

Restructuring for Organizational Autonomy

Transition committee: A proposed committee is under consideration.

Corporate Planning

Plan for asset transfer: Some technical and financial assistance is required to implement this plan effectively.

Plan for financial systems: Evaluate the Senorres Markez billing and collection experiment before expanding it to the other marakez. A pilot effort to computerize bills has been made in two very small villages.

Plan for staff transfer: The staff believe that an inventory of staff is not enough, that the plan should include standards to enable the transition committee to evaluate staff performance in selecting people.

Administrative and Personnel Systems

The framework for an appropriate organizational structure for the water authority has been prepared and discussed within the governorate, including the function of the various departments.

For wastewater, the structure for the Fayoum City department already exists. The Dutch consultants have been focusing on manpower development and performance improvement. The Dutch intend to begin work on a long-term strategy for the organizational structure to provide wastewater services.

Financial Systems

Developing a cost accounting system: Technical and financial assistance will enable the system to be completed before October 1996.

Developing a complete chart of accounts will require technical and financial assistance.

The final step in the transition action plan should be to prepare the following year's budget (after all other data is available).

Commercial and Consumer Systems

Collection of arrears: Consumers should be classified by arrears (age of account) as well as by amount of consumption. Governorate participants said that they can start implementing such a program immediately, at least in the city. Senorres Markez (mentioned above as a computerized billing experiment) is very relevant and should be used as a guide. That experiment should also serve as input to develop the components of the future billing and collection strategy.

Consumer awareness strategy: This program should initially concentrate on promoting an image of improved service under the new organization that will counter the popularly held belief that a new organization will only result in higher tariffs.

Operations and Maintenance

Evaluation: The ability to conduct a thorough evaluation of existing facilities is limited. To cover more than just the city or even to complete both water and wastewater facilities

will depend on the number of teams that can be dedicated to the task, which in turn will depend on available technical and financial assistance.

Unaccounted-for water in the system will have to be studied in more detail before a specific target for reducing the current level can either be set or agreed to.

Reducing network losses and unaccounted-for water will require technical and financial assistance.

Data on the rehabilitation needs for all facilities exist at the governorate planning department, but need to be located and updated.

Staff Development and Training

Manager training: The most critical need is training of future managers in the principles of commercial operation of a utility, a concept that is new to all involved in the governorate. There is a desire to learn from similar experiences, either in Egypt, such as in Alexandria or Damietta, or abroad.

3.3.2 Beni Suef

Restructuring for Organizational Autonomy

Governorate participants said it will be important for a transition committee to oversee activities until the new authority is operative, especially finding a temporary location for the authority. They want to determine a good candidate for chairman of the committee.

Corporate Planning

Technical and financial assistance will be needed with the proposed survey of assets and with setting up financial systems.

Administrative and Personnel Systems

It is important that the committee in Beni Suef be able to learn about other experiences in Egypt. This effort will require technical and financial assistance.

Financial Systems

Technical assistance will definitely be needed in setting up the chart of accounts and cost accounting systems.

Commercial and Consumer Systems

Although actions to increase collections and reduce arrears and unaccounted-for water are critical and should be monitored carefully, the focus of the transition committee should be on setting up a strategy for the commercial operation of the new authority.

Operations and Maintenance

Technical assistance will be critical to this as well as to other actions in the transition period. The three governorates should determine common needs and discuss them with USAID.

Staff Development and Training

Assistance will be needed in learning about experiences in other authorities in and outside of Egypt.

3.3.3 Me:iya

Restructuring for Organizational Autonomy

Governorate participants agreed that a transition committee is desirable to oversee activities until a new organization is operating. They said they thought that locating a temporary headquarters for the new organization can be done very quickly.

Corporate Planning

Participants said that planing for asset transfer and labor was definitely possible during the remaining period in the PCD Project.

Administrative and Personnel Systems

Participants said that some technical and financial assistance will be required, especially in helping them learn about the experiences of other agencies, such as those in Alexandria, Cairo, and especially Fayoum.

They also said that meetings with the Ministry of Housing, the National Organization for Potable Water and Sanitary Drainage, and the Ministry of Local Administration would be important in developing structures and defining roles for the various departments of the new organization.

Financial Systems

It will be important to foster a shared approach between the technical staff and financial staff who will be responsible for defining the budgetary needs for O&M. The EHP team believes that some team building would be helpful because the two sections have not worked together in the past and have not belonged to the same organization. Both groups need to understand that they will be working for the same organization and that it is to their advantage to develop a budget together.

Separating water and wastewater expenditures in city budgets for the other marakez is possible within the transition period. Technical and financial assistance will be required to prepare charts of accounts and cost accounting systems for the new utility.

Commercial and Consumer Systems

Compiling arrears in the city is a first priority for local staff, to be followed shortly thereafter by implementation of a program for collection, especially from large accounts. The governor insisted that a special committee be set up for arrears and unaccounted-for water.

Public awareness and publicity was not seen by officials as a top priority at the time of the review meeting. The governor thought that he should be the person to announce the formation and purpose of the new authority. However, the EHP team believes that members of the public need to be made aware of the importance of paying their bills.

Operations and Maintenance

To survey the facilities and determine the cost of proper O&M will require supplementary assistance.

More importantly, technical and financial assistance will be needed to develop and implement an unaccounted-for water program immediately.

Staff Development and Training

Actions need to be taken to determine the individuals who will form the core management group of the new organization so that they can receive participant training activities, both in Egypt and in other countries.

3.4 Priority Actions

The team believes that all the actions identified and reviewed by the governorate staff are essential to moving forward. It is especially important that completed water treatment plants operate with local staff resources and that the gains that have been made are sustained. All of the objectives are valid and need to be met. If choices need to be made among them to provide short-term resources, recommended priorities should be given to two areas, as discussed below.

The first area demonstrates a positive commitment by the newly emerging organizations to **cost savings and financial management**. Action items in this area include:

- Decreasing the amount of unaccounted-for water

- Increasing collections
- Setting up a financial system

The second major area is to prepare the staff to work as managers in a commercial organization rather than a social services organization. The action to be taken:

- Provide a **beginning management development program** so staff understand the essentials of commercial utility management and begin to develop a vision of, and some essential skills to manage, a commercial water and wastewater enterprise.

3.5 Conclusions

This action plan provides a road map for both long- and short-term transformation from the

current water and wastewater services to fully operational, modern water and wastewater utilities. The review of short-term actions by each of the governorates was positive and forward-looking. This was especially true of the working-level staff at each governorate. Bridging action priorities have been defined, and, it is hoped, will be supported within the context of the last year of the Provincial Cities Development Project. The fact that the Government of Egypt issued a presidential decree forming the structure for new general economic authorities in the provincial cities is a very important and hopeful sign.

The third report in this series describes proposed monitoring activities and indicators over the life of the institutional strengthening process.