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**APRP – Water Policy Activity
Contract PCE-I-00-96-00002-00
Task Order 807**

**QUARTERLY REPORT
(JULY-SEPTEMBER 2001)**

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**QUARTERLY REPORT
(APRIL-JUNE 2001)**

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I. SUMMARY

The EPIQ Water Policy Reform Program (Contract PCE-I-00-96-00002-00, Task Order 807) is responsible for advising and providing technical assistance to the Ministry of Water Resources and Irrigation (MWRI) of the Government of Egypt (GOE) with respect to improved policy assessment and planning, improved irrigation system management, and improved private sector participation. EPIQ is a component of the USAID Agricultural Policy Reform Program (APRP). EPIQ team members successfully completed Phase I of the Tranche IV Benchmarks in 2000 and are currently implementing activities related to the Tranche IV Phase II and Tranche V Benchmarks.

The Memorandum of Understanding (MOU) for Tranche IV was signed on 20 September 1999 and included four, two-year water policy benchmarks. These are:

- C.1. Reducing Mismatch of Irrigation Deliveries (since renamed Matching Irrigation Supplies with Demand)
- C.2. Urban Wastewater and Drainage Reuse.
- C.4. Irrigation Management Transfer.
- C.5. Revision of Law 12/1984 on Irrigation and Drainage.

Not listed above is Benchmark C.3, which was included in Tranche IV as a one-year benchmark and it was successfully completed in December 2000. The MWRI has sole responsibility for three of these benchmarks (C.2, C.4, C.5). The remaining benchmark (C.1) is a joint benchmark with the MALR. The benchmarks are multi-year benchmarks, which means they required partial completion in Phase 1 (December 2000) and final completion in Phase II (December 2001). One of the benchmarks is being coordinated by WPAU (C.5), two of the benchmarks are being coordinated by EPIQ (C.2, C.4); and EPIQ/RDI/PMU are jointly coordinating one benchmark (C.1).

The Tranche V MOU was approved and signed on 15 July 2001. The Tranche V MOU contains three water policy benchmarks as follows:

- C.1 Integrated Water Management District
- C.2 Public Participation in Decision Making
- C.3 Environmental Management at MWRI

The Tranche V work plan was prepared and presented to the Steering Committee at a workshop held on 23-24 February. Since the MOU was not finalized at the time, the Committee approved the work plan contingent on the final wording of the approved MOU. Final approval of the work plan took place on 15 July, concurrent with signing of the MOU.

Specific accomplishments- Tranche IV, Phase II Benchmarks:

C.1. Matching Irrigation Supplies with Demands:

Detailed analysis was completed of data from the water monitoring programs that were conducted in the five pilot districts March 1, 2000 through September 30, 2001. Training was provided for all 31 district engineers in the use of planimeters to determine command areas. The EPIQ Computer Training Specialist (local STTA) conducted an assessment of computer capabilities of staff of the irrigation districts. He then designed and conducted the following courses: Skills for MISD, MISD-Specific Applications, and Follow-up Training. The EPIQ Irrigation Scheduling, specialist (expatriate STTA) developed the simple tool (Microsoft Excel spreadsheet) for use by the district engineers to calculate crop water needs from the cropping pattern information provided twice each month by MALR. This tool and a spreadsheet developed for analyzing and displaying results were placed in the five pilot districts and four directorates.

C.2. Urban Wastewater and Drainage Reuse

The benchmark Working Group met regularly and all five pilot programs were actively pursued during the reporting period. In addition to the WG meetings, key WG members held numerous coordination meetings with individual pilot implementation teams and conducted a number of field trips. Pilot No. 3, Utilization of Treated Wastewater to Irrigate Ornamental Trees in Urban Areas was completed during the period and a dedication ceremony was held in August. The second of two public awareness workshop related to Pilot No. 4, Health Concerns Related to Irrigation with Treated Wastewater was successfully conducted during the reporting period. The stakeholder workshop for Pilot No. 5, Management of Industrial Wastes in Drains was successfully completed during the reporting period. The field work, analysis and public participation activities related to these three pilots were completed during the quarter and the remaining task of documentation was underway. Field and office activities related to Pilot No. 1, Classification of Drains and Pilot No. 2, Prioritization of Wastewater Treatment Plant construction continued throughout the period.

C.4. Irrigation Management Transfer:

The Irrigation Management Transfer Program of the EPIQ Water Policy project was actively engaged in a number of major activities leading toward completion of the benchmark. The benchmark Working Group met regularly and a number of field trips were undertaken. The MWRI IMT Benchmark Working Group, and the IMT Steering Committee (chaired by Eng. Gamil Mahmoud), both established specifically for this benchmark program, continued to play major roles in all activities and decisions. Major benchmark activities initiated during the previous quarter were continued in accordance with the established official work plan. The third phase of the IMT Physical Rehabilitation exercise was started during this period, and was completed, with submission of final designs and tender documents. The IMT socio-economic baseline survey was edited and will be disseminated as an annex to the final benchmark report. As part of the IMT planning process, multiple stakeholder focus group meetings were held in the selected pilot program areas. The plan for a study tour to Turkey

was finalized and the dates set for Oct. 28-Nov. 8, as the second part of the IMT international experience. Nomination of participants were approved by MWRI and USAID. A major Public Awareness Campaign for the IMT benchmark, which had started during the previous reporting quarter, was successfully completed, and included a comprehensive set of major prototype materials for wide-ranging public awareness campaign package to be launched in the four pilot IMT areas. The material was prepared with the complete involvement of the IMT Working Group, other key ministry staff involved in the IMT program and members of the BCWUAs. A proposal was drafted to design a MWRI monitoring and evaluation (M&E) system for the IMT program, which will be carried at a future time.

C.5 Revision of Law 12/1984 on Irrigation and Drainage

The benchmark working group met regularly during the reporting period. Meetings were held with key personnel from MWRI to clarify questions regarding the draft law and to solicit feedback regarding the draft. A detailed final review of the proposed draft law and its executive regulations was conducted to ensure there were no conflicts, duplication or unclear statements. Preparation for the stakeholders workshop scheduled for October were carried out.

Specific Accomplishments-Tranche V Benchmarks

C.1. Integrated Water Management District

A workshop was held July 18-20 in Port-Saied to discuss IWMD concepts, issues, concerns, and constraints with primary focus on recommendations for the best organizational structure for IWM districts. The EPIQ computer Training Specialist (local STTA) conducted training sessions on Computer Skills for IWMD, Advanced PC Skills for IWMD, and IWMD-specific Applications in the two pilot districts. The Irrigation District Management Specialist (expatriated STTA) assessed conditions and practices in each pilot district and recommended an IWMD organizational structure with personnel numbers and budget. The EPIQ water Monitoring Specialist (expatriate STTA) reviewed existing monitoring practices in the two pilot districts and proposed a water monitoring program for IWMDs with recommendations for its implementation. The IWMD working group continued regular meetings and conducted

visits to the pilot districts for discussions concerning all aspects of establishment of a functioning IWMD.

C.2. Public Participation in Decision-Making (PP)

The benchmark working group continued to hold regular meetings. The main focus of the groups efforts during the reporting period was on completion of the Pilot Demonstration Study that was initiated in the previous quarter. Stakeholder focus group meetings related to the pilot activity continued. Alternative solutions were designed and evaluated to determine the recommended solution. A final stakeholder workshop was conducted to inform them of the selected solution along with the justification for the selection. A slight modification to the selected alternative was made as a result of the stakeholders comments during the workshop. Successful completion of the workshop marked completion of the pilot demonstration. The working Group then concentrated on drafting the policy statement and completing the benchmark report.

C.3 Environmental Management at MWRI

The benchmark working group met regularly during the reporting period. The working group produced a second Interim Progress Report. This report identified and explained the steps and issues related to conducting an EIA process. It also characterized MWRI activities and explored potential organizational options for institutionalizing EIA within MWRI. Work was begun on an EIA Source Book that is intended to be a reference guide for MWRI staff involved with EIA studies in future. A stakeholder awareness workshop for middle management was conducted during the period. A group of MWRI staff participated in an observational study tour to the USA.

Studies and Benchmark Related Activities

Negotiations between USAID and the EPIQ TA contractor for exercising the first six month contract option period covering 1 October 2001 through 29 March 2001 continued. Final

resolution was not reached as of the end of the reporting period and a 60-day contract extension with no increase in budget was granted in order to provide for continuity until the contract modification could be put in place.

A contract for implementation of the KAP Survey was competed and awarded during the period. The contract was awarded to El Zanaty & associates on 5 September and work commenced immediately there after.

The MBI Study commenced during the reporting period. A literature search and definition of the problem was initiated. The Supervisory Resource Economist (STTA), Dr. David McCauly, made his first visit to Cairo to review the workplan with local staff and to provide general guidance for the conduct of the study. He also made a presentation to USAID while in Cairo.

II. ACCOMPLISHMENTS DURING THE REPORT PERIOD

During the 3rd quarter, July to September 2001, the EPIQ TA team worked with USAID, Ministry for Water Resources and Irrigation (MWRI), Egyptian Environmental Affairs Agency (EEAA), Ministry of Agriculture and Land Reclamation (MALR), Water Policy Advisory Unit (WPAU) and the other Agriculture Policy Reform Program (APRP) TA units on the implementation of the Tranche IV Phase II and Tranche V water policy benchmark activities. The other TA units include the Program Management Unit (PMU), Monitoring, Verification and Evaluation Unit (MVE), and the Reform Design and Implementation Unit (RDI).

Benchmark Support-Tranche IV, Phase II

C.1. Matching Irrigation Supply and Demand (MWRI/MALR)

Dr. Larry King, EPIQ Senior Irrigation Engineer, and Eng. Sarwat Fahmy, WPAU, have primary responsibility for this activity as co-task managers for the EPIQ/WPAU/WPRP team with support from EPIQ team members Dr. Ragab Abdel Azim, Irrigation Engineer, and Dr. El-Sayed Mahdy, Water Resource Economist, and part-time TA support from Eng. Hussein Elwan, Head of Central Directorate for Water Distribution, MWRI, and Eng. Sanaa Abdel Rashid (CDWD/MWRI). Eng. Mohamed Hamed and Eng. Mohamed El Margoshi of WPAU provided further technical assistance on a part-time basis. While the formal title of this benchmark is “Reducing Mismatch of Irrigation Deliveries”, the working group has adopted the title “Matching Irrigation Supply and Demand” (MISD) to emphasize the positive aspects of this activity. The core MISD Working Group of this joint MWRI/MALR benchmark is composed of Dr. Larry King, Dr. Jane Gleason (RDI), Dr. Ragab Abdel Azim, Eng. Hussein Elwan, and Eng. Mohamed El Shahed (Head, Economic Affairs Sector, MALR). The expanded joint group is the core group plus representatives from MWRI, MALR, EPIQ, RDI and PMU, WPAU, as well as the Undersecretaries, General Directors, Inspectors, District Engineers, and Agricultural Extensionists for the four selected directorates containing 31 irrigation districts within the four governorates: Sharkiya, Beheira, Beni Suef and Qena/Luxor.

Activities carried out by the EPIQ team during the reporting period were:

- ◆ Work on implementation of MISD plan was continued within the five pilot districts on their delivery of water based on cropping pattern data collected by the extension agents for each branch canal of the irrigation district. Contact was maintained by email between the EPIQ team and the pilot district engineers. The water monitoring programs in these pilot districts established during 2000 were continued including the regular electronic data transfer to Cairo offices.
- ◆ Analysis was started of the water monitoring data collected in the five pilot districts for the period March 1, 2000 through June 30, 2001.
- ◆ MWRI purchased 30 planimeters and EPIQ purchased one to provide one unit to each of the 31 districts in the four irrigation engineers in the EPIQ office. After all units were delivered, the vendor conducted training in the EPIQ office for District Engineers. Additional training was given by EPIQ in districts/directorates.
- ◆ The computer Training Specialist (local STTA) began work last quarter and continued through the present. His work included detailed assessment of computer training needs and designing and conducting computer training courses: Advanced computer skills for MISD, MISD-specific applications, and follow up training. This training complemented computer training given for the district engineers by MWRI at the 6th October City training center.
- ◆ The Irrigation Scheduling Specialist (expatriate STTA) began work in Cairo last quarter and continued this quarter to finish a spreadsheet (Microsoft Excel) for calculating crop water needs from the cropping pattern information provided twice each month by MALR. He recommended that EPIQ develop a Microsoft Access version of this calculation program. Development of this version was begun during the reporting period.
- ◆ The spreadsheet version of the calculation program was placed in each of the five pilot districts and with the Head of Water Section in the four directorates. Also, a spreadsheet was developed for analyzing results of water needs calculations and

the water monitoring program including a suite of graphs to display results. This latter tool was also placed in the five pilot districts and four directorates.

- ◆ WCU (MWRI) developed leaflets and posters to be used in the MISD awareness campaign.
- ◆ A draft was started of the MISD benchmark final report.

C.2. Urban Wastewater and Drainage Reuse

The MWRI/APRP wastewater task group leads the implementation of this benchmark. Dr. Zhongping Zhu, EPIQ co-task manager, and Eng. Nasser Ezzat, WPAU co-task manager, share responsibility for managing implementation activities. In year 2001, the task group includes: Eng. Hussein El Atfy and Dr. Hesham Kandil of MWRI Minister's Office, Eng. Mohamed Fathy, Eng. Hamza, Eng. Mohamed El Khazragy of MWRI EPADP, Dr. Ibrahim Ellassiouty and Dr. Ahmed Fakhry Khattab of EPIQ; Eng. Mohamed Hamed of WPAU; Dr. Seham Hendy of MOHP; Dr. Mamdouh Riad of MALR; Dr. Samia Galal of MEA, and Eng. Magda Gaballa and Eng. Mohsen Mamdouh of NOPWASD. The team was supplemented with the addition of Mr. J. Hendrichs, STTA Environmental Engineer in mid-August.

Activities carried out by the EPIQ Team during the reporting period consisted of pilot program implementation and coordination as follows:

- ◆ Pilot No. 1, Classification of Drains was completed during the period. A flow-based methodology for classification was developed and accepted by EPADP. The method was applied to the pilot area and all drains within the area were classified. The methodology was demonstrated to have application as an analytical tool, a management tool and a planning tool.
- ◆ Pilot No. 2, Wastewater Treatment Plant Construction Priorities was essentially completed during the period. Seven treatment plants in the pilot area were identified as having priority based on the total contribution to drain water quality improvement. This list was presented at a joint meeting of MWRI and NOPWASD officials and it was accepted for submission to the joint Committee.

- ◆ Pilot No. 3, Wastewater Irrigation of Urban Green Areas was completed during the reporting period. The pilot area outside of Gamassa was planted with 500 ornamental trees along the International Highway. The Irrigation system consisting of pump station, main supply pipeline and irrigation delivery system was installed and operational. A dedication ceremony was conducted to mark the successful completion of this pilot.
- ◆ Pilot Project No. 4, Health Awareness and Water Quality Monitoring was completed during the reporting period. Two awareness workshops to present concerns to the public of utilizing treated wastewater and to discuss safety precautions when using treated wastewater were conducted. In addition, water quality sampling and testing was carried out during the period.
- ◆ Pilot Program No. 5, Management of Industrial Wastes in drains was completed. The field survey to identify industrial waste discharges in the pilot area was completed and a proposed industrial Waste Management Plan was prepared. The management plan was presented to local government officials, industry representatives and other stakeholders at a workshop. The government officials and industry representatives agreed to take steps to finalize and implement the plan.

C.4. Irrigation Management Transfer

Dr. Robert Cardinalli (task Manager) with support from the Co-Task Manager of the MWRI Water Policy Advisory Unit, Eng. Mohamed Nasser Ezzat, is responsible for this activity.

The major accomplishments during the reporting period included:

- ◆ The benchmark-Working Group continued its formal meeting schedule and is comprised of the EPIQ Senior Sociologist (task manager), and representation from the WPAU (Eng. Nasser Ezzat, Eng. Amira Abdel Hady, Eng. Moamen El Sharkawy), MED (Eng. Ali Khalil, Eng. Mohamed), IAS (Eng. Essam Barakat), EPADP (Dr. Mahmoud Moustafa), and Horizontal Expansion sector (Eng. Rashad Ahmed).

- ◆ Multiple stakeholder focus group workshops were held involving farmers and ministry officials from the four pilot areas, at El Nazl (Dakahleya), El Shebab (Sharkaiya), South Tahrir (Beheira), and Beni Abed (El Minya). The purpose of the meetings was to continue discussions with stakeholders in formalizing the BCWUA transfer, and developing dialogue on cost-sharing for O&M.
- ◆ The second and third phase of the IMT Physical Rehabilitation exercise were completed during this period, and the final reports were submitted by the sub-contractor.
- ◆ Final editing was completed on the IMT socio-economic baseline survey, and will be included as part of the final benchmark report.
- ◆ The study tour to Turkey as the second part of the IMT international experience was approved by USAID and MWRI, along with nomination of participants. The study tour is scheduled for Oct. 28-Nov. 8.
- ◆ The second phase of a major Public Awareness Campaign for the IMT benchmark was completed during this period including a detailed set of prototype materials for all stakeholders for use in a comprehensive public awareness campaign. Included in the package is a video script designed for future application.
- ◆ A proposal for design of an IMT monitoring and evaluation system was deferred to 2002 per MWRI request.

C.5. Revision of Law 12/1984 on Irrigation and Drainage

This activity is being led by WPAU (Eng. Sarwat Fahmy and Eng. Nasser Ezzat). Dr. Ibrahim Ellassiouty (EPIQ Coordinator) is assisting. EPIQ has provided short-term TA for this activity through the EPIQ task order (Eng. Ahmed Maher, Local Irrigation Engineer and Dr. Mohamed Badran, Local Legal Advisor). Two WPAU engineers are supporting the law 12 group (Eng. Amira El Diasty and Eng. Moemen EL Sharkawy).

Activities carried out by the WPAU/EPIQ team during the reporting period area were as follows:

- ◆ The Working Group met every Monday in the 9th floor project conference room in order to review the previous weeks results and the plan for the coming week.
- ◆ Continued meetings with MWRI officials working group to complete reviewing the proposed regulation and to identify other initiatives, which might contribute to the regulation.
- ◆ Reviewed all parts of the law along with the corresponding executive regulation to ensure there were no conflicts or repetition.
- ◆ Made preparations for holding a stakeholders' workshop on October 4-6, 2001 in Alexandria.

Benchmark Support-Tranche V

C.1 Integrated Water Management District

Dr. Larry King, EPIQ Senior Irrigation Engineer, and Eng. Sarwat Fahmy, WPAU, have primary responsibility for this activity as co-task managers for the EPIQ/WPAU/WPRP team with support from EPIQ team members Dr. Ragab Abdel Azim, Irrigation Engineer, Dr. Ibrahim Ellassiouty, Water Resource Management Specialist, Dr. Robert Cardinalli, Senior Sociologist, and Dr. Elsayed Mahdy, Water Resource Economist, and support from WPAU team members Eng. Mohamed Hamed, Eng. Amira El Diasty, and Eng. Moemen El Sharkawy. The IWMD Working Group is composed of the above-named individuals plus two MWRI representatives Eng. Ali Morsi, Head of Irrigation Department, and Eng. Mohamed Fathy, Head of Egyptian Public Authority for Drainage. EPIQ team members, Dr. Robert Cardinalli, Senior Sociologist, and Dr. El-Sayed Mahdy, Water Resource Economist provide support as needed periodically.

Activities carried out by the EPIQ/WPAU team during the reporting period were:

- ◆ The EPIQ Computer training Specialist (local STTA) began work last quarter with an assessment of each pilot district staff's computer capabilities and computer training needs and plans for conducting the necessary training program. During this quarter, he conducted training sessions on Computer Skills for IWMD, Advanced PC Skills for IWMD, and IWMD-specific Applications in the two pilot districts with most of the effort directed to the South Zifta district since the Ibrahimeya district was receiving training through the MISD benchmark.
- ◆ An IWMD benchmark workshop was held July 18-20 in Port Saied to discuss IWMD concepts, issues, concerns, and constraints with primary focus on recommendations for the best organizational structure for IWM Districts. Both expatriate STTAs were in attendance.
- ◆ The Irrigation District Management Specialist (expatriate STTA) began work last quarter. During this quarter, he completed his work including assessment of conditions and practices in each pilot district, recommendations for IWMD organizational structure, personnel numbers, and budget. His report to be included as an appendix in the IWMD benchmark final report (No. 49), gives recommendations in areas of water distribution, water measurement, water monitoring, conjunctive use, and canal, drain, and equipment maintenance.
- ◆ The IWMD working group continued visits to the pilot districts and discussions concerning all aspects of establishment of functioning IWMD.

C.2. Public Participation in Decision-Making

Adrian Hutchens, EPIQ co-task manager, and Eng. Sarwat Fahmy, WPAU co-task manager, share responsibility for managing this benchmark. They are supported by the remainder of the Public Participation Work Group (PPWG) who are: Dr. Elsayed Mahdy, EPIQ Water Resource Economist; Eng. Hussein El Atfy, Undersecretary of Minister's Office; Eng. Salah El Shazly, Undersecretary of Central Administration for Complaints; Dr. Hesham Kandil, Director for Technology and Information; Dr. Hesham Moustafa, Head Water Communication Unit; Eng. Essam Barakat, Undersecretary of Irrigation Advisory Service;

Eng. Amira El Diasty, WPAU Technical Staff; and Eng. Moemen EL Sharkawy, WPAU Technical Staff.

The major accomplishments during the quarter included:

- ◆ Meetings of the working group continued on a regular basis throughout the reporting period.
- ◆ Stakeholders focus group meetings were conducted to solicit feedback regarding preliminary results of the study of alternative solutions to the pilot demonstration.
- ◆ Two field trips were made to verify alternative solutions to the pilot demonstrations and to obtain additional site information.
- ◆ A stakeholders informative seminar was held to present the pilot demonstration outcome. The solution proposed at the seminar was refined as a result of the feedback obtained during the seminar.
- ◆ Work progressed on the draft Final Benchmark Report.
- ◆ The draft policy statement was prepared and discussed at several working group meetings with revisions made after each meeting.

C.3. Environmental Management in MWRI

The MWRI/APRP environmental task group leads the implementation of this benchmark. Eng. Nasser Ezzat, WPAU co-task manager, and Dr. Zhongping Zhu, EPIQ co-task manager, share responsibility for managing implementation activities. The task group members are: Eng. Moemen El Sharkawy and Eng. Mohamed Hamed of WPAU; Dr. Ibrahim Ellassiouty of EPIQ; Dr. Daaa El Qousy, Dr. Hesham Kandil, and Eng. Hussein EL Atfy of MWRI; Dr. Ali Nasser, consultant; and Dr. Ahmed Abul Azm of EEAA.

The major accomplishments during the reporting period included:

- ◆ Meetings of the Benchmark Working Group were held on a regular basis to coordinate the work.
- ◆ An observational study tour to the USA was conducted in July. The participants spent the first week in Washington, D.C meeting with U.S. Government Agencies and the World Bank to learn about the environmental requirements and procedures of those agencies. The second week of the tour was conducted in California in meetings with State and Federal agencies.
- ◆ The consultant to the Working Group prepared a second interim report of their activities. The report presented a comprehensive discussion of the EIA process, characterized MWRI activities in accordance with the process and presented organizational alternatives for institutionalizing EIA within MWRI.
- ◆ A stakeholders awareness workshop was conducted for middle management of MWRI.
- ◆ Preparation of a reference guide (MWRI Source Book) for conducting EIA within MWRI was initiated during the reporting period.

Studies & Benchmark Related Activities

The terms of reference for the EPIQ task order is structured around a results package, jointly designed by USAID and MWRI, consisting of integrated water policy and institutional reforms. To support this results package, the EPIQ team is able to carry out studies that support policy reform or have the potential of leading to future policy benchmarks. The EPIQ team is also involved in supporting select activities that relate directly to implementation of previous water policy benchmarks. Non-benchmark activities that fall into this category are discussed below.

Impact Assessment

Adrian Hutchens (EPIQ economist) is coordinating this activity with support from Dr. Elsayed Mahdy (EPIQ economist). No work was programmed for this activity during the quarter.

Knowledge, Attitudes and Practices Survey (KAP)

Dr. Robert Cardinali (EPIQ Sociologist) is coordinating this study in cooperation with WPAU and the Ministry's Water Communication Study. This survey is intended to be a follow-on to the previous KAP survey conducted by Greencom in 1998. It is intended to provide information regarding the effectiveness of the policy reforms implemented under APRP and also provide input to the Impact Analysis. This effort was started in August, with issuance of an RFP, followed by selection of a local firm to execute the field survey. The present study will generally replicate the questionnaire and sample population of the first study, with addition of a sampling of reclamation areas "new lands", as well as a qualitative community case study component using Participatory Rural Appraisal (PRA) methods to supplement and verify veracity of quantitative results. The subcontractor awarded the field survey commenced work in early September and is scheduled to complete their draft final report in early March 2002.

Market-Based Instruments (MBI) Study

During the process of negotiating the contract extension period, it was jointly decided by MWRI, USAID and the EPIQ contractor that a new study related to Market-Based Instruments (MBIs) be undertaken. The objective is to study issues related to the use of MBIs and identify MBIs that have the potential to achieve additional improvements in irrigation efficiency and water quality. The intent is to define policy adjustments that will facilitate the use of MBIs by MWRI.

The study was initiated in mid-August. A literature search and problem definition exercise was initiated. Dr. David McCauley, Supervisory Resource Economist is responsible to

design, oversee and coordinate this study through a Short Term Technical Assistance arrangement. His first trip to Cairo took place in September.

MWRI Future Vision

The EPIQ Team provided advice and assistance to WPAU and MWRI in support of the Ministry's future vision exercise. Dr. Russell Mischeloff was mobilized to assist the team and provide guidance regarding this effort.

Workshops

A number of benchmark implementation seminars and benchmark-specific workshops were held during the reporting period. These are summarized as follows:

Public Participation Information Workshop

EPIQ organized and hosted a one-day seminar to present the final outcome of the pilot demonstration to local stakeholders and MWRI officials.

Environmental Management

An awareness workshop was conducted for middle management staff of MWRI.

Integrated Water Management District

A stakeholder workshop for MWRI staff was held to present preliminary planning results and to solicit feedback.

Urban Wastewater & Drainage Reuse

- ◆ EPIQ, jointly with MOHP organized and hosted a one-day seminar for wastewater treatment plant personnel and farmers on the topic of Health Issues Related to Wastewater Reuse.
- ◆ EPIQ, jointly with EEAA organized and hosted a one-day seminar to present a draft Industrial Waste Management Plan to stakeholders within the pilot area.

- ◆ EPIQ, jointly with MALR organized and hosted a one-day dedication ceremony for the Urban Green Areas pilot program.

Irrigation Management Transfer

EPIQ organized and hosted a one-day workshop for the stakeholders to present the Public Awareness Program and System Rehabilitation design for feedback.

APRP/EPIQ Coordination

Close coordination between the EPIQ team and other units of APRP, USAID and MWRI continued.

Members of the EPIQ WPRP team participated in the bi-weekly APRP coordination meetings and the PPC meetings.

Regular water group coordination meetings were held at MWRI. USAID Ag policy water staff, WPAU, and EPIQ WPRP participated.

Regular meetings of all benchmark-working groups were held throughout the quarter. There were also numerous field trips and meetings with governorate and district level personnel.

Reports

One report was issued during the reporting period as follows:

No. 40 Quarterly Report (January-March 2001)

No. 41 Quarterly Report (April-June 2001)

III. ACTIVITIES PLANNED FOR NEXT QUARTER

Benchmark Support-Tranche IV, Phase II

C.1: Reducing Mismatch of Irrigation Deliveries

The following activities are planned for the next quarter:

- ◆ Continue technical assistance to the MWRI and MALR for expansion of MISD activities to cover all irrigation districts in each of the four pilot directorates (Beheira, Beni Suef, Qena, and West Sharkaiya) primarily through evaluation of the MISD information transfer process.
- ◆ Continue assistance to MALR through RDI to ensure the MISD data gathering and information transfer process is sustainable, effective, and efficient and that the information on cropping patterns and calendars is accurate, timely, and adequate for matching irrigation deliveries to water demands.
- ◆ Plan and conduct joint MALR/MWRI/MISD awareness meetings for district/directorate level personnel. Use the developed video and other awareness materials in these meetings with the agricultural extension hood workers as the primary recipients this training.
- ◆ Complete the development of the district engineer's simple tool (Microsoft Access version) for calculating crop water needs using the semimonthly MALR cropping pattern information and deliver it to the five pilot districts and four directorates.
- ◆ Draft the national policy and obtain signatures of Ministers of both MWRI and MALR.
- ◆ Write final draft of the MISD final report and present it at the APRP Water Policy Program Tranche IV Benchmark Final Workshop.
- ◆ Following the workshop, prepare and print the MISD benchmark final report.

C.2. Urban Wastewater Discharge and Reuse

The following activities are planned for the next quarter:

- ◆ Finalize all pilot program reports.
- ◆ Finalize final draft benchmark report.

C.4 Irrigation Management Transfer

The following activities are planned for the next quarter:

- ◆ The IMT benchmark working group will continue to meet regularly and report to the IMT Steering Committee on tasks associated with development of the IMT policy and its phased plan for implementation.
- ◆ IMT Socio-Economic baseline survey final report to be presented to the IMT Steering Committee.
- ◆ The designs and tender documents for the physical rehabilitation work of the four IMT pilot branch canals will be completed and officially processed by the IMT Steering Committee and later the concerned MWRI department for contracting.
- ◆ Memoranda of Understanding (MOU) to be formalized between the BCWUA of El Minya governorate and MWRI in signing ceremony.
- ◆ IMT study tour to Turkey to be implemented October 28-November 8, 2001.
- ◆ IMT Public Awareness Campaign (PAC) prototypes will be presented to the IMT Steering Committee for approval. The MWRI Water Communications Unit will commence the publication of the materials and dissemination to target audiences as per the PAC program, following approval and allocation of funding by the IMT steering Committee under the chairmanship of Eng. Gamil Mahmoud.
- ◆ MWRI Steering Committee to identify and determine permanent institutional placement of IMT program for pilot phase as well as expansion and replication phases.
- ◆ A final benchmark report will be completed in draft form by early November for Steering Committee consideration. A final report will be completed in December for formal submission by MWRI to USAID.

C.5 Revision of Law 12

The following activities are planned for the next quarter:

- ◆ A stakeholders' workshop will be conducted to solicit stakeholders' feedback on the proposed executive regulation.
- ◆ Prepare the final draft of the executive regulation both in Arabic and in English to be delivered to MWRI for approval.
- ◆ Complete the final report in order to be presented in Tranche IV Benchmark Phase II final workshop that will be held in Ain El Sokhna, Friday-Saturday 9-10 November 2001.

Benchmark Support-Tranche V

C.1 Integrated Water Management District

The following activities are planned for next quarter:

- ◆ Draft decree(s) for the Minister's approval and issuance concerning the boundary adjustments of existing districts to formally establish the two pilot IWM districts: South Zifta and Ibrahimeya.
- ◆ Draft a decree for the Minister's approval and issuance concerning the national policy for IWM districts including name of district, organizational chart, and staffing with roles and responsibilities of district personnel.
- ◆ Develop a clear statement of definition as to exactly what constitutes an Integrated Water Management District and include it in the benchmark final report.
- ◆ Write the IWMD benchmark draft final report for the APRP Water Policy Program Tranche V Benchmark Final Workshop.

C.2 Public Participation in Decision Making

The following activities are planned for the next quarter:

- ◆ Prepare final draft policy statement and obtain approval by MWRI.
- ◆ Prepare Final Draft Benchmark Report.

C.3 Environmental Management at MWRI

The following activities are planned for the next period:

- ◆ Conduct stakeholders workshop.
- ◆ Prepare draft policy statement for submission to H.E. Minister Abu-Zeid
- ◆ Prepare Final Draft Benchmark Report.

Studies and Benchmark Related Activities

<u>Impact Analysis:</u>	Detailed Planning for this activity will commence.
<u>KAP Survey:</u>	Complete field data collection and analysis.
<u>Market-Based Instruments Study:</u>	Continue with all tasks of this activity.

IV. PROBLEMS AND ISSUES

No serious problems have arisen nor are any anticipated.

V. IMPORTANT TRIPS, VISITS AND MEETINGS

DATE	LOCATION	PURPOSE
July 2	North Sinai	ENVM field trip to Qantara
July 3	Salaam Canal	UWDR water quality monitoring field trip to Salaam Canal
July 5	MWRI 9 th floor conference room	Law 12 work group meeting
July 9-11	South Zifta District	MISD computer training field trip to South Zifta
July 10	MWRI 9 TH floor conference room	WPRP steering committee meeting
July 10-12	Tanta	IWMD field trip to south zifta
July 11	MWRI 9 th floor conference room	PPDM work group meeting
July 14-15	Gharbiya	Ragabiya and Ganabiya canal stakeholders meeting
July 15	USA	US Water Resources Environment Impact Assessment Study Tour
July 16	MWRI 9 th floor conference room	Law 12 work group meeting
July 16-17	Sharkeya directorate	IWMD field trip to sharkia
July 16-19	Beni Suef	MISD computer training course
July 17	<ul style="list-style-type: none"> ◆ MALR ◆ MWRI con.room 	<ul style="list-style-type: none"> ◆ MISD working group meeting ◆ ENVM meeting
July 18-20	Port Saied	IWMD workshop

DATE	LOCATION	PURPOSE
July 22	MWRI 9 th floor conference room	Public participation meeting
July 24	MWRI 9 th floor conference room	IMT working group meeting
July 25	MALR	MISD working group meeting
July 26	Qanater	ENVM health concerns in Irrigation Drainage Reuse workshop
July 28	Gharbiya Directorate	PPDM documentation fieldtrip El Santa District
July 29	MWRI 9 th floor conference room	Law 12 working group meeting
July 30	MWRI 9 th floor MWRI 18 TH floor MWRI 18 th floor	<ul style="list-style-type: none"> ◆ IMT working group meeting ◆ MISD Working group meeting ◆ IWMD working group meeting
August 1	MWRI 9 th floor conference room	MISD planimeter training for Sharqiya and Bahariya
August 2	MWRI 9 th floor conference room	MISD planimeter training for Qena
August 5	MWRI 9 th floor conference room	MISD planimeter training for Beni Suef
August 6-9	MWRI 9 th floor conference room	IWMD computer training South Zifta, Menufiya Directorate
August 9	MWRI 9 th floor conference room	<ul style="list-style-type: none"> ◆ PPDM working group meeting ◆ ENVM working group meeting
August 10	Damanhour	IMT Field trip to El Azeema Branch Canal, Damanhour
August 10-13	West Sharkia	MISD computer training Zagazig
August 12	APRP	APRP coordination meeting
August 13	MEA	Meeting with MEA representatives regarding reports
August 14-17	Damanhour	MISD computer training

DATE	LOCATION	PURPOSE
August 15	MWRI 9 th floor conference room	PPDM working group meeting
August 15-17	Ismaielia	ENVM environmental management workshop
August 19	MWRI 9 th floor conference room	UWDR meeting with EPADP representative
August 19-22	Beni Suef	MISD computer training
August 20	MWRI 9 th floor conference room	IMT public awareness meeting
August 21	MWRI 9 th floor Gamasa Damanhour	Law 12 work group meeting IWDR field trip to Gamasa for UWDR pilot no. IMT field trip to El Azeema branch canal
August 23	MWRI 9 th floor conference room	PPDM work group meeting
August 26	MWRI 9 th floor conference room	◆ IMT working group meeting ◆ PPDM planning meeting
August 27	Pyramisa hotel MWRI 9 th floor MWRI 9 th floor MWRI 1 st floor	IMT stakeholder workshop UWDR task group meeting Law 12 work group meeting MISD meeting (awareness)
August 28	MWRI 9 th floor MALR	PPWG work group meeting MISD meeting
August 29	Sharkia MWRI 9 th floor	MISD field trip to Abou Kebir UWDR meeting with EPADP representative
September 1-2	Tanta	PPDM field visit to Tanta
September 3	MWRI 9 th floor	Law 12 working group meeting
September 4	MWRI 9 th floor	IMT working group meeting
September 5	Beheira	MISD field visit to Abu Hommus
September 5-6	Tanta	PPDM informative seminar
September 6	Beni Suef	MISD field visit to Beba
September 10	Sharkia	MISD field visit to Abou Kebir

DATE	LOCATION	PURPOSE
September 11	USAID	Economic instruments seminar, David McCauley
September 12	NOPWASD	UWDR treatment priority meeting
September 13	MWRI 9 th floor	PPWG meeting
September 17	MWRI 9 th floor	ENVM task group meeting Law 12 working group meeting
September 18	MWRI 9 th floor	UWDR meeting with MEA representative
Sep. 18-20	Qena	MISD field trip to Qena
Sept. 19	MWRI 9 th floor	Benchmark status update meeting
Sep. 20-21	Daqahlia directorate	UWDR field trip to Daqahlia
Sept. 22-27	South Zifta District	IWMD computer training
September 23	Mansoura	UWDR industrial Wastewater workshop
September 24	MWRI 9 th floor	Law 12 working group meeting
September 25	MWRI 9 th floor MWRI 18 th floor	IMT working group meeting IWMD working group meeting
September 30	APRP conference room	APRP coordination meeting
Sep. 30-Oct. 4	West Sharkia Directorate	MISD computer training

VI. STAFF LEVEL OF EFFORT

The EPIQ resident team had a technical consulting staff of ten people (6 expatriate and 4 local professionals) and an administrative support staff of ten people throughout the reporting period.

The LTTA and STTA staffing list for the quarter is shown below:

RESIDENT STAFF

EXPATRIATE

NAME	POSITION
Mr. Andrew Tczap	Chief of Party
Greg Olson	Administrative Officer
Dr. Zhonping Zhu	Senior Water Resources Engineer
Dr. Larry King	Senior Irrigation Engineer
Adrian Hutchens	Senior Water Economist
Dr. Robert Cardinalli	Senior Sociologist

LOCAL EGYPTIAN

NAME	POSITION
Dr. Ahmed F. Khattab	Co-Team Leader
Dr. Ibrahim Elassiouty	Senior Water Resources Management Specialist
Dr. Elsayed Mahdy	Economist
Eng. Ragab Abdel Azim	Drainage Engineer

SHORT TERM STAFF DURING THE REPORT PERIOD

EXPATRIATE

NAME	POSITION
Dr. Ramchand Oad	Water Measurement Specialist
Mr. Jeffrey Hendrichs	Environmental Engineer
Dr. Russel Mischeloff	Advisor to MWRI/WPAU
Dr. David McCauley	Supervisory Resource Economist
Mr. Patrick Papania	Communications Specialist
Dr. Ken Mitchel	Irrigation District Specialist
Dr. Marshal English	Irrigation Scheduling Specialist

LOCAL EGYPTIAN

NAME	POSITION
Hussein Elwan	Irrigation Management Specialist
Sanaa Abdel Rashid	Water Data Analysis Specialist
Hussein El Atfy	Senior Water Policy Specialist
Hesham Kandil	Senior Water Quality Specialist
Siham Hendy	Senior Public Health Specialist
Mamdouh Riad	Senior Forestry Specialist
Magda Gaballa	Senior Wastewater Treatment Specialist
Mohsen Mamdouh	Senior Wastewater Treatment Specialist
Abdel Rahman Shalaby	Senior Institutional Policy Specialist
Ahmed Maher Ghydan	Senior Irrigation Specialist
Mohamed Badran	Legal Specialist
Hesham Moustafa	Communications Specialist
Mohamed Fathy	Senior Drainage Specialist
Abdel Moniem Hamza	Drainage Engineer
Mahamed El Khazragy	Drainage Engineer
Essam Barakat	Senior IAS Specialist
Ali Morsi	Senior Irrigation Specialist
Salah El Shazly	Senior Institutional Specialist
Diaa El Qousy	Senior Water Resources Specialist
Ahmed Gaber	Environmental Consultant
Ali Hassan	Environmental Consultant
Amgad El Ansary	Environmental Consultant
Ashraf Ghanem	Environmental Consultant
Ahmed Abul Azm	Environmental Consultant

VII. STATUS OF FINANCES AND EXPENDITURES

EPIQ WPRP Financial summary for 3rd Quarter 2001 (July-September 2001)

	Itemized Budget	Prior Claimed	Current Claim	Claims to Date	Remaining Balance	Budget Claimed
Direct Labor	\$6,795,261	\$5,622,428	\$692,352	\$6,314,780	\$480,481	93%
Travel and Transportation	\$385,000	\$261,181	\$17,344	\$278,525	\$106,475	72%
Per Diem	\$235,281	\$236,811	\$38,340	\$275,150	(\$39,869)	117%
Allowances	\$1,233,887	\$1,077,378	\$69,763	\$1,147,142	\$86,745	93%
Other Direct Costs	\$1,668,793	\$1,333,485	\$115,707	\$1,449,192	\$219,601	87%
Total	\$10,318,222	\$8,531,284	\$933,506	\$9,464,789	\$853,433	92%

Source: IRG Invoice #47, #48, and #49

VIII. LIST OF REPORTS

No.	NAME	DATE
1	APRP Tranche II Policy Benchmark Background Documentation	August 1997
2	Project Implementation Plan	October 1997
3	Annual Technical Progress Report (7 May-31 Dec 1997)	January 1998
4	Annual Work Plan (Jan.-Dec 1998)	April 1998
5	Quarterly Report (Jan.-March 1998)	April 1998
6	Assessment of Egypt's Rice Policy and Strategy for Water Manag.	June 1998
7	Egypt's Irrigation Improvement Program I. Performance Assessment II. Proposed National Strategy	June 1998
8	National Policy for Drainage Water Reuse	June 1998
9	Water User Association Formation Outside the Irrigation Improvement Program Area	June 1998
10	Hydrogeology of Deep Aquifers in the Western Desert and Sinai	August 1998
11	Quarterly Report (April-June 1998)	August 1998
12	WRRP Tranche III Benchmark Work Plan	November 1998
13	Quarterly Report (July-September 1998)	December 1998
14	Quarterly Report (October-December 1998)	January 1999
15	Quarterly Report (January-March 1999)	May 1999
16	Policies and Procedures for Free-Flowing Groundwater Management in Egypt's Western Desert	June 1999
17	Establishment of Branch Canal Water User Associations in the Egyptian Irrigation System	June 1999
18	Institutionalization of the Irrigation Advisory Service in the Ministry of Public Works and Water Resources	June 1999
19	Water Saving Through Utilization of Short Duration Rice Varieties: National Policy Package, 1999-2000	June 1999

No.	NAME	DATE
20	Intermediate Drainage Reuse in Bahr Bagar Drain Basin	June 1999
21	Revision of Law 48 of 1982 for the Protection of the Nile River and its Waterways from Pollution	June 1999
22	Short Duration Rice Variety Pilot Program Results	July 1999
23	Quarterly Report (April– June 1999)	August 1999
24	Tranche IV Water Policy Benchmark Implementation Plan (FY 99/00)	November 1999
25	Quarterly Report (July - September 1999)	November 1999
26	Rice Water Use Policy Phase1: Water Monitoring and Evaluation Program with Appendices	December 1999
27	Review of the Agricultural Sector Model of Egypt (ASME97): 1999 Version	December 1999
28	Quarterly Report (October-December 1999)	January 2000
29	Annual Report (January – December 1999)	February 2000
30	Quarterly Report (January- March 2000)	May 2000
31	Quarterly Report (April- June 2000)	August 2000
32	Quarterly Report (June-September 2001)	
33	Reducing Mismatch of Irrigation Deliveries, Phase I: Pilot Program	November 2000
34	Policies and Procedures for Improved Urban Wastewater Discharge and Reuse	November 2000
35	Water Management at the Directorate Level	November 2000
36	MWRI Policy on Irrigation Management Transfer (Phase I)	December 2000
37	Analysis and Review of Modifications in Law 12 of 1984 on Irrigation and Drainage	December 2000
38	Quarterly Report (October-December 2000)	May 2001
39	Irrigation Management Transfer Public Awareness Campaign Phase 1: Strategy	June 2001
40	Quarterly Report (January-March 2001)	July 2001

No.	NAME	DATE
41	Quarterly Report (April-June 2001)	August 2001
42	IMT Public Awareness Campaign: Phase II	To be submitted
43	PPDM User's Manual	October 2001
44	Quarterly Report (July – Sept 2001)	Nov. 2001
45	Matching Irrigation Supplies and Demands	Nov. 2001
46	Application of Policies and Procedures for Improved Urban Wastewater Discharge and Reuse with Appendices	Nov. 2001
47	MWRI Policy on Irrigation Management Transfer with Appendices	Dec. 2001
48	Revised Law 12 of 1984 on Water Resources and its Executive Regulation with Appendices	Nov. 2001