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US Agency for International Development
Agricultural Policy Reform Program
Environmental Policy and Institutional Strengthening Indefinite Quantity Contract**

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

**QUARTERLY REPORT
(JANUARY – MARCH 1998)**

Report No. 5

April 1998

Water Policy Reform Program

International Resources Group

Nile Consultants

Winrock International

QUARTERLY REPORT
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I. SUMMARY

1. Dr. J. Fredericks (COP), Dr. J. Keith (Senior Economist) and Dr. R. Cardinalli (Senior Sociologist) arrived in Egypt to begin their assignments as resident members of the EPIQ team. Two new long term Egyptian consultants were also added to the team, Eng. Ragab Azim (drainage engineer) and Dr. El-Sayed Mahdy (economist).
2. A Policy Advisory Group (PAG) was mobilized in February to support the EPIQ WRRP resident team. Members of the PAG group include Dr. M. Rock (technical co-ordinator /senior economist), Dr. R. Young (senior water resource economist), Dr. J. Keller (senior irrigation engineer) and Dr. M. Allam (senior water resources planner).
3. Short term TA was provided by Dr. M. Lowdermilk and Eng. Essam Barakat to study the feasibility of introducing WUAs in non-Irrigation Improvement Program areas.
4. An APRP Workshop was held on 24-25 February at Luxor to discuss ways to improve co-ordination between the various APRP teams and layout a schedule for preparing Tranche III benchmarks.
5. Separate task forces on the Tranche II benchmarks on optimal use of water for sugar cane and rice were organised with representatives from MPWWR and MALR. Dr. J. Keith, EPIQ economist, was appointed as the APRP co-ordinator.
6. Work continued on the activity to support the Tranche II drainage reuse benchmark. The drainage reuse team has prepared an internal drainage paper identifying the major issues and analysis carried out to support possible policy reform.
7. The work on the review and policy recommendations on the Irrigation Improvement Project (IIP) program is progressing according to schedule. This activity, being carried out to support a Tranche II benchmark, will produce a document that reviews and recommends modifications in the objectives of the IIP strategy, the support background information used in the review and a statement of proposed new policies.
8. The study on policy alternatives for the deep groundwater aquifers in Sinai and the Western Desert continued.

II. ACCOMPLISHMENTS DURING THE REPORT PERIOD

Staffing

Dr. Jeffrey W. Fredericks arrived on 25 January to take up the long term position of Chief of Party. The original COP left the project in August 1997. During the interim period the COP position was held by Dr. M. Allam (Aug-Dec 1997) and Dr. Tom Ley (Dec 1997- Jan 1998). Dr. John Keith arrived on 1 February 1998 to replace Dr. D. Wilchens as senior economist. Dr. Robert Cardinalli arrived on 20 March 1998 to begin his assignment as long term expatriate sociologist. Eng. Ragab Azim started work as long term National drainage engineer on 1 February 1998. He will be supporting the drainage reuse team. Dr. El-Sayed Mahdy joined the EPIQ team as the long term National economist on 1 March.

A Policy Advisory Group (PAG) was mobilized in February to support the EPIQ WRRP resident team. The PAG consists of a small team of senior level, short term TA advisors. Initial members include: Dr. M. Rock (technical co-ordinator /senior economist), Dr. B. Young (senior water resource economist), Dr. J. Keller (senior irrigation engineer) and Dr. M. Allam (senior water resources planner). R. Misheloff, IRG/EPIQ Policy Advisor, also participated in the first PAG activity held in Cairo during the period 1-5 February. The primary objective of the PAG is to provide high level analytical support in:

- Development of an overall conceptual framework and analytical agenda based on the WRRP SOW.
- Clarification and development of TOR for analytical studies to support the current water policy benchmarks.
- Development, within the context of the WRRP TOR, of future benchmarks.

Dr. Jack Keller completed a two week assignment from 2 to 14 March to review and assist the EPIQ team in preparation of the outlines for the IIP and drainage reuse reports. He also prepared a draft TOR for TA to support the groundwater study.

Water Management Alternatives for Rice and Sugar Cane

Joint working groups with representatives from MPWWR, MALR, EPIQ, RDI and PMU were formed to study strategies on water management alternatives for rice and sugar cane. Meetings were held to present relevant studies and information to TA. Both ministries appointed representatives to each working group. Policy test areas were identified and implementation began for water use studies by short season rice varieties. Dr. John Keith and Dr. El-Sayed Mahdy participated in these activities.

National Strategy for Irrigation Improvement Projects

The activity on preparation of a national strategy for irrigation improvement projects was led by Dr. T. Ley. During this quarter the following activities were carried out:

- Completed draft outline and table of contents for report entitled: “Assessment of Egypt’s Irrigation Improvement Program” with input from PAG.
- Completed draft outline and table of contents for report entitled: “A National Strategy for Irrigation Improvement in Egypt” with input from the PAG.
- Completed a draft of Work Plan Activity 1.2 Water Conservation and Management Alternatives, A2: Water Allocation under Scenarios of Reduced Water Supply. The initial framing of a APRP Tranche III benchmark under this activity was also completed.
- Conceptual approach was developed and data review began on IIP economic analyses.

Numerous meetings and field trips were made to IIP project areas.

Water Supply Augmentation using Deep Groundwater

The policy study on water supply augmentation using deep groundwater continued under the direction of Eng Saleh Nour. This included:

- Review of previous hydrogeologic investigations of deep groundwater aquifers in Sinai and the Western Desert.
- Assisting in the design of a plan for developing better information describing hydrogeologic characteristics of deep aquifers, to support economic analysis of groundwater policy alternatives.
- Assisting in analyzing existing hydrogeologic data to estimate regional hydrogeologic characteristics and evaluate potential use of deep groundwater.
- Summarizing the current state of knowledge regarding deep groundwater aquifers in Sinai and the Western Desert.

Agricultural Drainage Water Reuse

The activity on drainage reuse in support of the Tranche II benchmark is being carried out by an EPIQ Team work group that includes Dr. Zhongping Zhu, Dr. Ibrahim Elassiouti, Dr. Fakhry Khattab, and Eng. Ragab Azim. The work group with assistance from the PAG completed most of the policy analysis on:

- The maximum salt-removal-driven drainage reuse potential and the minimum fish-production-driven outflow requirements.
- The current and future M&I wastewater volumes and pollution loads in the Delta region, and the possible reduction options.
- A general evaluation of the Delta’s drain water quality and the applicable remedy measures in drain water quality control.

- The potential impact of extended irrigation improvement projects (IIP), application of new irrigation methods, reduction of rice areas, and Toshka project development on drainage patterns in the Delta.
- Three reuse levels, main mixing stations, intermediate reuse, and unofficial reuse, and their complementary roles in total drainage reuse.
- Promising economical and institutional instruments and incentives in drain water management.

To support the drainage reuse work field visits were made to:

- West Delta to meet with local drainage managers and engineers on the drainage generation, reuse patterns, and technical and policy issues in the Delta.
- Environmental Ministry on M&I wastewater discharge and pollution control.
- National Organization for Potable Water and Sanitary Drainage on wastewater treatment plant development and pollution control.
- Egyptian Authority for Drainage Projects, Drainage Research Institutes, Nile Channel Maintenance Department, Horizontal Expansion Sector, Irrigation Sector, and other sectors / departments of the Ministry of Public Works and Water Resources.
- Canadian and Netherlands drainage projects for information exchange and policy discussion.
- Contacts with the Pacer Consultants and several other local consultant companies for their views on the drainage reuse.
- International Wastewater Treatment Technology Conference held in Alexandria in March 1998.

A draft drainage reuse technical report was circulated within the EPIQ team during the 1st Qtr.

Water Users Associations in non-IIP Areas

Major accomplishments during the reporting period include:

- Work plan for three month TDY assignment prepared by Dr. Max Lowdermilk. TOR for two Egyptian local consultants prepared, Eng. Essam Barakat (senior irrigation participation specialist) and Eng Hassan Shouman (senior irrigation institutional and legal specialist).
- Completed five one-day focus group workshops with stakeholders on water user associations and federations on IIP and non-IIP areas. A total of 126 participants attended. Separate workshops were held for the participants from the regions of Tanta, Damanhur, Zagazig, Minya and Monsouria.
- Interviews were conducted with key officials of MPWWR, World Bank, USAID, National Water Research Center, other donor sponsored projects involving farmer participation and farmers.

- Visited the traditional water user association in Fayoum to obtain information on the MPWWR-Dutch Project on water boards.

Other Activities

The Cost Sharing Implementation Plan developed by the MPWWR in support an APRP Tranche I benchmark activity was reviewed and revised by the EPIQ study team.

Dr. J. Keith began a review of the Agriculture Sector Model in support of the EPIQ agricultural water demand activity.

APRP Co-ordination

Dr. Tom Ley, acting COP, along with Dr. C. Anderson (USAID COTR) and Eng Gamil Mahmoud (WPAU) met with H.E. Minister Mahmoud Abu Zeid to discuss the concept and purpose of the PAG and other issues related to the WRRP.

Dr. J. Keller, PAG member, along with Dr. T. Olsen (USAID APRP director) and Dr. C. Anderson (USAID COTR) met with J. Wesley, USAID Mission director, to discuss Toshka and other activities relating to the water sector.

EPIQ team members participated in the APRP Workshop held on 24-25 February at Luxor. The purpose of the meeting was to discuss ways to improve co-ordination between the various APRP teams and layout a schedule for preparing Tranche III benchmarks. Representatives from USAID, MPWWR, the EPIQ WRRP team as well as other consultant and support groups working under the APRP umbrella attended the workshop.

Close co-ordination between the EPIQ team and other units of APRP, USAID and MPWWR continued. Members of the EPIQ team attended the weekly APRP co-ordination meeting.

Administration

Two Jeep Cherokees and a Ford Taurus station wagon were insured, licensed and put on the road. Taurus Station wagon was transferred to WPAU.

Reports

The EPIQ WRRP annual progress report for 1997 was issued.

III. ACTIVITIES PLANNED FOR NEXT QUARTER

Staffing

PAG (Dr. M. Rock, Dr. J. Keller, Dr. R. Young, Dr. M. Allam) is expected to provide TA support during the early part of May and attend the EPIQ Tranche II workshop planned for June.

Dr. Max Lowdermilk and Eng. Essam Barakat with assistance from Dr. R. Cardialli, will complete their work on WUAs in non-IIP areas.

Water Management Alternatives for Rice and Sugar Cane

- Complete reports on policy strategy by rice and sugar cane working groups.
- Develop economic data collection surveys and implementation procedures for rice policy testing areas.
- Present results of studies to Steering Committee

National Strategy for Irrigation Improvement Projects

- Complete draft report entitled: "Assessment of Egypt's Irrigation Improvement Program" by 30 April 1998. Submit to the PAG, USAID and the Ministry for review and comment.
- Complete draft report entitled: "A National Strategy for Irrigation Improvement in Egypt" by 10 May 1998. Submit to the PAG, USAID and the Ministry for review and comment.
- Help the Ministry organize and conduct a round table meeting to present and discuss the national strategy for irrigation improvements in early June 1998.
- Revise the above two reports based on comment and feedback received. Submit the National Strategy for Irrigation Improvement to fulfill the APRP Tranche II benchmark by 30 June 1998.

Water Supply Augmentation using Deep Groundwater

- Finalize work on the review of previous hydrogeologic investigations, well plan design and analysis of existing hydrogeologic data on water supply augmentation using Deep Groundwater.
- Prepare report summarizing the current state of knowledge regarding deep groundwater aquifers in Sinai and the Western Desert.

Agricultural Drainage Water Reuse

Future activities include:

- Refine technical analysis.
- Develop pertinent policies.

- Extend technical and policy discussions and consultations with all involved parties.
- Submit a benchmark document on National Drainage Reuse.
- Present strategies for a National Drainage Reuse Plan to Steering committee for approval.

Water Users Associations in non-IIP Areas

- Complete regional focus group workshops.
- Prepare document on feasibility and options for introducing WUAs to non-IIP areas
- Conduct workshop on WUAs in non-IIP areas with Steering Committee members.

Tranche III

- Assist MPWWR and USAID in preparation of Tranche III benchmark statements and verification indicators.
- Attend APRP Tranche III Benchmark Workshop scheduled for May 1998.

Other Activities

Conceptualize approach for using Ag Sector Model sub-models for developing agricultural water demand analysis

Reports

The following reports are expected to be completed during the next report period:

- Annual work plan.
- Document on optimal use of water for sugar cane.
- Document on optimal use of water for rice.
- Document on Assessment of Egypt's Irrigation Improvement Program
- Report on National Strategy for Irrigation Improvement in Egypt
- Document on National Drainage Reuse Plan.
- Report on review of deep groundwater in the Western Desert and Sinai.
- Report on establishment of WUAs in non-IIP areas.

Administration

- Install LAN system
- Purchase two additional vehicles

IV. PROBLEMS AND ISSUES

The arrival of the new COP, expatriate economist and sociologist; the addition of a long term Egyptian drainage engineer and economist; and mobilization of a PAG has had a major impact on strengthening the technical capabilities of the EPIQ team

Increased efforts are being made to involve USAID, APRP and MPWWR personnel in the activities of the EPIQ team. Joint working groups have been formed for the Rice and Sugar cane activities. A bimonthly APRP water group coordination meeting sponsored by USAID and WPAU has been started.

V. IMPORTANT TRIPS, VISITS AND MEETINGS

Date	Purpose	Location	Persons Met
11 Jan	APRP PMU Meeting	APRP	APRP Units
13 Jan	Steering Committee Meeting	MPWWR	Steering Committee
18 Jan	Meeting with H.E. Minister Mahmoud Abu Zeid to discuss the concept and purpose of the PAG	MPWWR	Minister Abu Zeid (MPWWR), Eng. Gamil (WPAU), C. Anderson (USAID), T. Ley (EPIQ)
19 Jan	APRP PMU Meeting	APRP	APRP Units
25 Jan	APRP PMU Meeting	APRP	APRP Units
1-2 Feb	EPIQ Team Mtg. with PAG	EPIQ	PAG members
8 Feb	APRP PMU Meeting	APRP	APRP Units
9-11 Feb	Met with local drainage managers and engineers on the drainage generation, reuse patterns, and technical and policy issues in the Delta.	West Delta	Irrig US (Tanta); Irrig US (Damanhur); DG Drainage (Kafr El Sheikh)
22 Feb	APRP PMU Meeting	APRP	APRP Units
25-26 Feb	APRP Tranche III Planning Workshop	Luxor	APRP Units
3-4 Mar	Fayoum field trip to learn about Dutch FWMP-2 Project and development of local water boards	Fayoum	Fayoum US of State for Irrigation, Dutch FWMP-2 Project Team; Eng Mabrouk (USAID)
7 Mar	Visit to Kafr El Sheikh WDISRI team to discuss their IIP evaluation activities	Kafr El Sheikh	Ahmed Ismail, Mohamed Meleha
9 Mar	Saidiya IIP area field trip to learn about IIP activities, drain water reuse and conjunctive use shallow groundwater in this IIP area.	Zagazig, Saidiya IIP	Sharkiya US of State for Irrigation, Saidiya IIP team members; C. Anderson (USAID)
12 Mar	Rice work group	APRP	EPIQ, DRI, PMU, MPWWR, MALR
15 Mar	APRP PMU Meeting	APRP	APRP Units
22 Mar	Rice work group	APRP	EPIQ, DRI, PMU, MPWWR, MALR, USAID
24 Mar	Sugar Crop WRRP	APRP	EPIQ, DRI, PMU, SCRI, AENRI, Sugar Crop Council, MPWWR, Ain-Shams University.
23-25	Field visit to study Dutch		Dutch staff, Salam Mohd.

Date	Purpose	Location	Persons Met
Mar	water board and traditional organizations at Bhar ul Garak canal	Fayoum	Salem and the leader of the traditional WUA leader
28 Mar	Field Trip to study organization of new canal	El Salem canal	DG, El Salem Canal
31 Mar	Sugar Crop Working Group	EPIQ	EPIQ, DRI, MPWWR, SCRI, AENRI, GreeCom, Ain-Shams University

VI. STAFF LEVEL OF EFFORT

Name	Position	Arrival	Departure	Reporting Period (pm)	Cumulative (pm)
Expatriate Long Term TA					
Dr. Jeff Fredericks	Chief of Party	25 Jan 98	30 Sep 99	2.1	2.1
Thomas Burola	Administrative Officer	12 Jun 97	11 June 99	3	9.60
Dr. Thomas Ley	Senior Irrigation Engineer Acting Team Leader	20 Jun 97	30 Sep 99	3	9.33
Dr. Zhongping Zhu	Senior Water Resources Engineer	13 Jun 97	12 June 99	3	9.60
Dr. John Keith	Senior Water Economist	1 Feb 98	30 Sep 99	2	2
Dr. Robert Cardinalli	Senior Sociologist	20 Mar 99	18 Nov 99	0	0.9
Egyptian Long Term TA					
Dr. Ahmed Fakhry Khattab	Co-Team Leader	1 Aug 97	31 Jul 98	3	8
Dr. Ibrahim Ellassiouti	Senior Water Resources Mgmt. Specialist	1 Aug 97	31 Jul 98	3	8
Eng. Saleh Nour	Senior Hydrogeologist	1 Sept. 97	31 Aug 98	3	8
Dr. El-Sayed Mahdy	Economist	1 Mar 98	28 Feb 99	1	1
Eng. Ragab Abdel Azim	Drainage Engineer	1 Feb 98	31 Jan 99	2	2
Expatriate Short Term TA					
Dr. Mike Rock	Technical Coordinator	31 Jan 98	6 Feb 98	0.25	0.25
Dr. Jack Keller	Senior Irrigation Engineer	31 Jan 98; 2 Mar 98	6 Feb 98; 14 Mar 98	0.25 0.5	0.75
Dr. Robert Young	Senior Economist	31 Jan 98	6 Feb 98		
Dr. Max Lowdermilk	Senior Participation Specialist	6 Feb 98	5 May 98	0.2	0.2
Egyptian Short Term					
Eng. Essam Barakat	Senior Irrigation Participation Specialist	1 Mar 98	31 May, 98	1	1
Dr. Mohamed Allam	Senior Water Resource Specialist	As required	As required		

Name	Position	Arrival	Departure	Reporting Period (pm)	Cumulative (pm)
Egyptian Admin Staff					
Karim Abdel Razik	Administrator	15 Sept. 97	14 Sept. 98	3	6.5
Foaz El Mona Fouad	Executive secretary	15 Sept. 97	14 Sept. 98	3	6.5
Jacqueline Rizk	Accountant	3 Aug. 97	2 Aug. 98	3	8
Amira Serry	Secretary	14 Dec. 97	13 Dec. 98	3	3.5
K.alid Mokhtar	Messenger	1 Oct. 97	30 Sept. 98	3	60
Akmed Mahmoud	Messenger	20 Nov. 97	19 Nov. 98	3	4.2
Saed Maebed	Driver	12 Feb. 98	11 Feb. 99	1.8	1.8
Adel Moustafa	Driver	17 Feb. 98	16 Feb. 99	1.5	1.5

VII. STATUS OF FINANCES AND EXPENDITURES

Financial summary for 1st quarter (1 January - 31 March 1998)

Category	Budget Amount (US\$)	Total through Last Period (US\$)	Expenditures This Period (US\$)	Cumulative Amount (US\$)	Remaining Amount (US\$)	Percent Expended (%)
Direct Labor	2,509,512	157,893	93,171	251,064	2,258,448	10.0
Labor Multiplier	2,760,463	173,684	99,718	273,402	2,487,061	9.9
Subtotal Labor Costs	5,269,975	331,576	192,890	524,466	4,745,509	10
Materials and Other Direct Costs	2,729,079	331,577	144,749	476,326	2,252,753	17.5
Total TO Ceiling Budget	7,999,054	663,153	337,639	1,000,792	6,998,262	12.5