



**LIFE Integrated Water Resources Management
Task Order No. 802
EPIQ II: Contract No. EPP-I-802-03-00013-00**

**Annual Report
Year 1
(2004 - 2005)**
Report No. 17

October 2005

**ANNUAL REPORT
YEAR 1
(2004 - 2005)**

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ACRONYMS AND ABBREVIATIONS

AAU	Agricultural Administrative Unit
AED	Academy for Educational Development (a US-based entity providing USAID-funded assistance regarding environmental education and awareness)
APRP	Agricultural Policy Reform Program
BCWUA	Branch Canal Water User Association
CD	Central Directorate
CDA	Community Development Association
CTO	Cognizant Technical Officer. The USAID person responsible for supervising a technical assistance contractor
CY	Calendar Year
DAI	Development Alternatives, Inc. (a Washington DC-based consulting firm working with IRG to implement the project)
EEAA	Egyptian Environmental Affairs Agency
EEPP	Egyptian Environmental Policy Program (a USAID-funded program aimed at achieving environmental policy reform)
EPADP	(MWRI) Egyptian Public Authority for Drainage Projects
EPIQ	Environmental Policy and Institutional Strengthening Indefinite Quantity Contract
ET	Evapotranspiration
GIS	Geographic Information System
GOE	Government of Egypt
GPS	Global Positioning System
GW	Groundwater
GWS	Groundwater Sector
HD	(Aswan) High Dam
IAS	Irrigation Advisory Service
IBRD	International Bank for Reconstruction and Development or World Bank
ID	Irrigation Department
IDS	Irrigation and drainage system
IIIMP	Integrated Irrigation Improvement and Management Project
IIP	Irrigation Improvement Project
IRG	International Resources Group (a Washington DC-based consulting firm that is prime contractor for the IWRMP)
IRU	MWRI Institutional Reform Unit
IRs	Intermediate Results
IS	Irrigation Sector of the MWRI
IT	Information Technology
IWMD	Integrated Water Management District
IWMU	MWRI Integrated Water Management Unit
IWRM	Integrated Water Resources Management
IWRMP	Integrated Water Resource Management Project
LAN	Local Area Network
LIFE	Livelihood and Income from the Environment (project)
LOE	Level of Effort
M&E	Monitoring and Evaluation
MALR	Ministry of Agriculture and Land Reclamation
MED	MWRI Mechanical & Electrical Department
MIC	MWRI Ministry Information Center

MISD	Matching Irrigation Supply and Demand
MOE	Ministry of Education
MOH	Ministry of Housing
MOU	Memorandum of Understanding
MSEA	Ministry of State for Environmental Affairs
MWRI	Ministry of Water Resources and Irrigation
NGO	Non governmental Organization
NWRC	(MWRI) National Water Research Center
O&M	Operation and Maintenance
OJT	On-the-Job Training
PM&E	Performance Monitoring and Evaluation
RSC/WP	Red Sea Coastal/Water Project, short name for USAID Red Sea Coastal and Improved Water Resource Management Project
RWP	Relative Water Supply
SIRs	Sub-Intermediate Results
SOs	Strategic Objectives
STTA	Short-term Technical Assistance
TA	Technical assistance
TOR	Terms of reference
USAID	United States Agency for International Development
WCU	MWRI Water Communication Unit
WDC	MWRI Central Water Distribution Center
WPRP	Water Resources Results Package
WQU	MWRI Water Quality Unit
WUA	Water User Association

I. SUMMARY

International Resource Group (IRG) under the USAID/Egypt funded Livelihood and Income from the Environment (LIFE) Integrated Water Resources Management Project (Contract No. EPP-I-802-03-00013-00 Task Order 802) is responsible for assisting the Government of Egypt (GOE) to promote integrated water resources management. The period of performance of the project is from October 1, 2004 to September 30, 2008.

The purpose of this report is to present the status and performance of LIFE IWRM for Year 1 (2004/2005). The Annual Report has the following content: summary of project activities and accomplishments for the year (2004-2005) including tables showing accomplishments vs targets; planned activities for the following quarter (October – December 2005); and a section on problems, issues, and lessons learned.

The following items have been included as annexes: Annex A USAID QTR SO Matrix, Annex B M&E Plan Update, Annex C Annual Financial Status Report, Annex D List of Project Reports, Annex E Status of Technical Assistance, Annex F Overseas Training Report, Annex G In-country Training Report, and Annex H Procurement Status Report

A summary of the activities and accomplishments for the Year (October 04 to September 05) follows:

Contractor mobilized on 1 October 2004 with the signing of the Contract. Main Project Office was established at MWRI Imbaba, Cairo. Two regional offices were established in Zagazig and Qena. MWRI has provided rent free space for these offices and assigned an engineer to assist each of the regional advisors.

Eng. Wafaa Faltaous replaced Dr. Ross Hagan as CTO in June 2005.

PO was signed with the Integrated Water Management Unit to provide support funding for Year 1 through September 2005. H.E. Minister, MWRI, signed a decree naming representatives for the MWRI Steering Committee. Eng. Gamil Mahmoud was assigned as the Chairman.

A workshop to present the Annual Work Plan was held at Ain Soukhna on 17-18 December 2004. Dr. Mahmoud Abou Zeid, H.E. Minister, MWRI; USAID project management staff (Dr. Ross Hagan, Eng. Wafaa Faltaous, and Ms. Inas Tawadrous); Steering Committee members; Undersecretaries and General Directors from the target Directorates; IWMU staff; and LIFE IWRM TA team attended.

The Annual Year 1 Work Plan, Life of Project Procurement Plan, Annual Year 1 Training Plan, and Monitoring and Evaluation Plan were approved by USAID and MWRI in January 2005.

Annual Work Plan Workshop for Year 2 was held from 16-18 September 2005 at Palestine Hotel, Alexandria. H.E. the Minister MWRI; Anthony Vance (USAID); members of the Steering Committee including Wafaa Faltaous(USAID); representatives from USAID including Gary Robins, Sylvia Attallah, and Sahar Abdel Rahman; Under Secretaries; Director Generals; and select District Managers from the 5 Directorates; IWMU; and LIFE IWRM TA team attended.

Annual Year 2 Work Plan was approved by MWRI and EEAA in September 2005.

Task 1 Formation of Integrated Water Management Districts has been completed. 23/23 new IWMDs have been formed. The total of IWMDs including those formed under RSC/WP is now 27 and includes all the Districts in the 5 target Directorates. Organization chart for IWMDs defining roles and responsibilities for IWMD staff was approved and implemented by MWRI. Training course on Establishment of IWMDs was given to all IWMD District managers and their four section heads. Three of the 27 IWMD managers and 25% of the section heads are women. All admin and technical staff have been officially assigned to the IWMDs. This was achieved much more quickly than anyone anticipated. This is a major success because successful formation of the IWMDs sets the foundation for completion of Tasks 2 and 3. During the RSC/WP bridging period it took one year to form four IWMDs. Under LIFE/IWRM 23 new IWMDs were formed in less than 6 months.

Task 2 Formation of Branch Canal Water Users' Associations has supported the establishment in Year 1 of 175 BCWUAs serving over 2.6 million rural residents, on branch canals in 8 districts. The project also supported strengthening of another 94 BCWUAs serving over 1.6 million water users formed under the RSC/WP. In collaboration with MWRI, and with the formal approval of H.E. Minister MWRI, the Project has developed a streamlined program to directly involve District Managers and District staff; increase the number of water users represented by BCWUAs; and insure activation of the BCWUAs once they are established. The Project is focusing on building the capacity of all IWMDs to establish and activate BCWUAs in all BCs in all target Directorates.

Under *Task 3 Equitable Allocation of Water Resources* over 85 computers were supplied and installed in the IWMDs. On-site maintenance is being provided by local suppliers. Over 300 persons were given 60 hours of basic computer training. Early installation of computer equipment and the computer training allowed the project to begin installation of water resource databases that are a prerequisite for establishing information systems at the newly formed IWMDs.

Water Monitoring Plans were prepared by IWMDs. Water discharge measurement program is now being carried out in all five Directorates. Procedures for calibration of structures have been prepared and implemented in the four pilot IWMDs, thus allowing calculation of actual allocation. National Water Research Center Hydraulic Research Institute provided the Project with 25 current meters and the MWRI Telemetry Section has provided 12. All current-meters provided by MWRI have been calibrated and distributed to IWMDs. Flow monitoring boats were fabricated, tested, certified, and delivered to IWMDs. Water discharge measurement program is ongoing at 90 sites targeted for calibration in all IWMDs for Year 1.

Tools such as forms and database have been developed to support this activity. Water level, Complaints, Violation, MISD databases have been installed in all IWMDs.

Procedures for preparing digital project base maps using 1:25,000 scale topographic maps and satellite imagery were developed. Official irrigation schematic diagrams prepared by MWRI were updated for all Districts. 1:50,000 and 1:25,000 scale maps procured for project area. 15mx15m satellite imagery for project area procured. Boundary maps for all IWMDs prepared by MWRI.

GPS equipment and field training were provided to IWMD staff. Groundwater inventories are continuing in the four original IWMDs (Ibrahimiya, S. Zifta, Esna, and Luxor).

Task 4 Improved Maintenance and Upgrading of Water Management Equipment required an assessment of the need for strengthening the capabilities of technical schools to provide training in maintenance of irrigation pumps. The scope was expanded to include an assessment of BCWUAs. The assessment was completed and submitted to USAID.

For *Task 5 Environmental Services for Improving Water Quality Management* a pilot area was selected in Senbo Branch Canal, Zifta Directorate, Gharbiya Governorate. A feasibility study was completed; a survey of over 200 households using former CIDA EEAA SEAM project staff was conducted; designs and tender documents for an agricultural solid waste and a liquid waste pilot were prepared; a local consortium made up of the CDA (Cooperative Development Authority), BCWUA (Branch Canal Water User Association), and local council was organized; and financial and organizational training of these groups was provided.

CDA/BCWUA/local council consortium agreed to provide the land and management for the pilot activities.

The Governor of Gharbiya has taken an interest in this pilot program and requested additional support from USAID through a letter to Minister of State for International Cooperation. H.E. Minister MWRI has approved and given instructions to send a memo to the Prime Minister supporting the activity and requesting other ministries to become involved in the activity and provide funding for expansion to other locations.

Task 6 Improved Wastewater Reuse Practices is being implemented in coordination with MSE/EEAA. This task was delayed at the request of EEAA, pending the approval of the GOE Waste Water Reuse Code which was finally signed in April 2005. The coordination between the Project, USAID, EEAA, and MALR has been excellent at all levels. A 10 feddan site in Luxor was approved by the Luxor Governor and permission has been granted to use effluent from the Luxor treatment plant for the demonstration. Water and soils monitoring was started. Crops have been selected and agreed upon based on the newly approved Egyptian Wastewater Reuse Code. Designs are complete, and planting is expected to start in November 2005.

Task 7 Graduate Degree Training for MWRI Staff is sponsoring two participants for a two year MS degree program at Utah State University. Two persons are attending American University in Cairo for MS degrees and an additional 8 participants were identified and enrolled in local Egyptian University MS programs.

Dick Edwards (USAID), Dr. Ross Hagan (USAID), Eng. Essam Barakat (MWRI), and Eric Viala (Life IWRM) attended the USCID Conference on “Water District Management and Governance” held in San Diego March 30 to April 2, 2005.

Monitoring and Evaluation Plan was developed and included establishment of project indicators and performance targets. The M&E process was extended to help the newly formed IWMDs develop their own performance benchmarking capabilities. Monthly meetings were conducted with the IWMDs. Each District Manager now submits a monthly status report. Regular data collection was started by the IWMDs to monitor complaints, cropping patterns, yields of main crops, rotations, water requests, and actual water allocations. Base line studies were conducted with the IWMDs, and procedures for performance monitoring developed, using indicators such as quality of irrigation service, water demands vs. deliveries, equity of water distribution, and areas covered by BCWUAs. Baseline farmer surveys were conducted in each of the 27 IWMD (5,000 respondents) using staff from the IWMDs as enumerators. MWRI will use the results of the performance monitoring to evaluate and provide incentives to IWMD managers.

Public Awareness, Education, and Communication Support techniques are being used to support all Project activities. Working with the MWRI Water Communication Unit, the project has established a project web site (www.iwrmeq.org); prepared and disseminated over 60,000 project brochures, folders, booklets, flyers, and posters; and prepared two videos on IWRM and BCWUA benefits.

Gender issues are being integrated into all activities. Formal presentations by IWMU on gender issues were given to the Under Secretaries, General Directors, and IWMD District managers at the monthly coordination meetings. Discussions on gender issues were included in all BCWUA training.

Training has been used to provide technical assistance through a combination of formal and on-the-job programs. As of September 2005, the project had conducted over 56 classroom events, 14 classroom/field events, and 38 OJT programs – in total over 850 training days for 1,500 trainees (17 percent of whom are women).

Procurement effort in the first year has supplied over 90 percent of the commodities approved in the Life of Project Procurement Plan. Because most of the procurement was done locally, the procurement was done with major cost savings and in a very short time.

II. ACCOMPLISHMENTS DURING YEAR 1 (2004-2005)

Task 1: Formation of Integrated Water Management Districts

Eric Viala (LTTA, Expatriate Water Resources Management Specialist) is coordinator for this task. Eng. Nabil Fawzi (LTTA, Local Water Resources Management Specialist) is assigned as Regional advisor for Upper Egypt. He is supported by Eng. Yehia Youssef (IWMU). Eng. Maher Khodary (LTTA, Water Resources Management Specialist) is assigned as Regional Advisor for Lower Egypt. He is supported by Eng. Mohamed El Hamrawy (IWMU). Eng. Sarwat Fahmy (Local Senior Technical Advisor) provided STTA. Activities carried out during the report period by LIFE IWRM team included:

- Preparation of Year 1 Workplan, training plan and procurement plan.
- Establishment of two Project Regional Offices to provide constant local support to project activities in Lower and Upper Egypt.
- Awareness meetings with MWRI managing staff (Undersecretaries and General Directors) within the five target directorates.
- Preparation of a template and guidelines for the IWMD organigram. These were approved and used to organize and staff the newly established 23 IWMDs.
- Assistance to the identification and assignment of the IWMD directors and managing staff (engineers).
- Support to identification and allocation of facilities for IWMDs.
- Support to the preparation and ratification of decrees confirming the IWMDs, their definition, staffing, etc.:

Table 1 IWMD Formation Decrees

Type	Lower Egypt (2 directorates)	Upper Egypt (3 directorates)
Initiation of process	Decree 541/2004 (Nov 10)	
Assignment of IWMD directors	Decree 916/2004 (Dec 21)	Qena decree 1008/2004 (Dec 28), Aswan decree 277/2005 (April 14)
Assignment of engineers to IWMDs	Decrees 94/2005 (Feb 2) and 102/2005 (Feb 15)	
Definition of boundaries	Decrees 144/2005 and 146/2005 (March 13)	Decrees 242/2005 (April 29), and 145/2005 (March 14)
Assignment of other technical and administrative staff	Two Under secretarial Decrees	Two Under secretarial Decrees

- Implementation of training activities in the five target directorates on organizational management and staffing of IWMDs. Trainees included director and four section heads for each IWMD (five training events, 160 trainees).
- Monthly coordination meetings were held with MWRI managing staff (Undersecretaries, General Directors, and IWMD directors) within the five target directorates to disseminate information, monitor progress, discuss upcoming steps, identify roadblocks, and share experiences.
- Preparation and approval of a template for IWMD monthly reports. These are now being prepared regularly by each IWMD manager.
- Support to the division of Qena directorate into two directorates (East and West).
- Facilitation of transfer of staff and equipment. A protocol was signed between EPADP and ID Chairmen to facilitate staff transfer and ensure IWMD support and collaboration with EPADP projects.

- Lobbying for MWRI maximal support to the newly established IWMDs. Several field trips were organized with Eng. Gamil, Head of IWMU, Dr. Bahaa Saad, Chairman of the Irrigation Department (ID), Eng. Abd-El Hakeem, Chairman of EPADP and others.
- Eng. Gamil, Head of IWMU, accompanied H.E. the Minister on a visit to Quesna and Zifta Districts in June 2005. H.E. the Minister showed significant interest and support in the establishment and functioning of the IWMDs. Additional resources and notably incentives will be considered by the MWRI to support IWMDs.
- The Annual Workplan Workshop was held in Alexandria on September 16-18, 2005. Project achievements were presented, and the Year 2 Workplan was approved. Five IWMD managers were also invited to present their perspective of the IWMD concept and benefits. These presentations were very well received and contributed to strengthen MWRI support for the IWMD concept.
- Preparation of Year 2 Workplan, training plan and procurement plan.

Table 2 Task 1 Accomplishments vs Project Benchmarks

Task No. 1: Establishment of IWMDs - Year 1				
	Activities	Outputs	Targets	Completed
			Y1	Y1
Task No. 1: IWMDs	1. Support to definition of IWMD boundaries	MWRI decrees to officialize IWMDs	100%	100%
	2. Support to preparation of organizational plans and transfer of staff	Organizational plans approved	100%	100%
	3. Support to transfer of facilities and equipment	Equipment /facilities transferred	30%	75%
	4. Support to preparation of maintenance plans and budget requests	Maintenance plans prepared by IWMDs	100%	Yr3
	5. Revision/clarification of roles and responsibilities	Clear roles and responsibilities for all IWMD staff	30%	30%
	6. Support to IWMD management and performance monitoring	Monthly reports and meetings	30%	50%
	7. Training and capacity building activities	Number of training courses delivered	30%	30%

Task 2: Formation of Branch Canal Water Users' Associations

Eric Viala (LTTA, Expat Water Resources Management Specialist) is coordinating this task with assistance from Eng. Moamen Mohamed Said El Sharkawy (IWMU) and Eng. Amira Abdel Hady (IWMU). Eng. Essam Barakat (MWRI), Eng. Ahmed Abdel Monsief (MWRI), Eng. Atef El-Kasheif (MWRI), Eng. Mohamed Ezzat El Shafie (MWRI), Eng. Salem Mohamed Salem (MWRI), Eng. Refaat Sediek Abdallah (MWRI), Eng. Tarek Mohamed Ibrahim (MWRI), and Eng. Khaled Mohamed El-Mandouh (MWRI) provided local STTA support. Activities carried out during the report period by LIFE IWRM team included:

- Preparation of Year 1 Workplan, training plan and procurement plan.
- Awareness meetings with MWRI managing staff (Undersecretaries and General Directors) within the five target directorates.
- Mobilization of local IAS managing staff in both Lower and Upper Egypt.

- Support to assignment of IAS staff within IWMDs for establishment of BCWUAs (eight districts selected for first year implementation, two per target directorate).
- Implementation of six BCWUA establishment training courses for district level IAS staff (120 trainees, total of 20 three-day training events) in the eight districts selected for first year:

Table 3 BCWUA Establishment Training Program

Course	Objective
Orientation (i)	To inform field staff of the process, training activities and objectives of establishment of BCWUAs in IWMDs.
Orientation (ii)	To provide field staff with general concepts and background on communication, conflict resolution, and gender equity
Data Collection & Stakeholders Analysis	To provide field staff with procedures and tools for data collection and stakeholders' analysis for establishment of BCWUAs.
Canal Grouping	To provide field staff with procedures and tools for canal grouping and identification of number of BCWUAs to be established at IWMD's level.
Election & Roles & Responsibility of RA	To provide field staff with procedures and tools to conduct election process of representative assemblies (RAs) and define roles and responsibilities of RAs.
Election & Roles & Responsibility of BCWUA Board	To provide field staff with procedures and tools to assist election process of board members and define roles and responsibilities of board members.

- Implementation of corresponding On-the-Job training activities by district level IAS staff under the supervision of IWMD directors. These activities focus on definition of BCWUAs to be formed, water user awareness and mobilization election of Representative Assemblies and of BCWUA Boards.
- Support to the successful establishment of the 175 BCWUAs targeted this year in eight IWMDs:

Table 4 Established BCWUAs

IWMD	Esna	Armant	East Edfo	West Edfo	Abu-Kebeer	Zagazig	Quesna	Berket El Sab'a	Total
Activity BCWUAs established	24	25	20	24	23	23	23	13	175

- Updating of training courses and material for BCWUA establishment.
- Preparation of training courses and material for BCWUA strengthening (in the four pilot IWMDs).
- Implementation of BCWUA strengthening activities in the four pilot IWMDs where BCWUAs were established last year. The training activities focused on supporting the development of Internal Regulations by the boards of BCWUAs. All existing 94 BCWUAs were trained this year (14 three-day training events):

Table 5 BCWUAs Strengthened Through Training

IWMD	West Esna	Luxor	Zifta	Ibrahimiya	Total
Activity BCWUAs trained	7	30	26	31	94

- A memo was prepared by the project and the IWMU seeking H.E. the Minister's approval for empowering IWMDs to directly establish and/or strengthen BCWUAs with technical support from CD-IAS. Dr. Bahaa Saad, Chairman of Irrigation Department supported this revised strategy and reviewed the document before it was sent to the Minister. H.E. the Minister approved the new strategy and requested the project to prepare a training plan for the district staff, a monitoring plan, and redefine the role of CD-IAS.
- Revision of the BCWUA formation process for the IWMDs to directly establish and activate BCWUAs (ongoing).
- Preparation of Year 2 Workplan, training plan and procurement plan.

Table 6 Task 2 Accomplishments vs Project Benchmarks

Task No. 2: Establishment of BCWUAs Yr 1				
	Activities	Progress indicators	Targets	Completed
			Y1	Y1
Task No. 2: BCWUAs	1. Entry phase: IAS staff	IWMDs with IAS staff	Delta: 50% Upper: 25%	Delta: 50% Upper: 25%
	2. Establishment of BCWUAs	Elected boards of BCWUAs	Delta: 40% Upper: 20%	Delta: 50% Upper: 25%
		Signed MOUs	-	Delta: 50% Upper: 25%
	3. Strengthening of BCWUAs	BC assessments prepared by BCWUAs	-	-
		BCWUAs with financial/admin rules	-	Delta: 50% Upper: 25%
	4. Pilot activities (with grants)	Nb of grants allocated	-	-
	5. Training and capacity building activities	Nb of training courses delivered	20%	40%
7. Awareness/Promotion of WU participation	Nb of material distributed	30%	40%	

Task 3: Equitable Allocation of Water Resources

Eric Viala (LTTA, Expat Water Resources Management Specialist) is coordinator for this task with assistance from Eng. Alaa Abbas (IWMU), Eng. Mohamed Hamed (IWMU), Eng. Hisham Shehab (IWMU), Dr. Ragab Ali Abdel Azim (MWRI), and Dr. Mohamed Rami Mahmoud (MWRI). Dr Tom Sheng (IRG) provided short-term technical assistance.

Activities carried out during the report period by LIFE IWRM team included:

- Preparation of Year 1 Workplan, training plan and procurement plan.
- Awareness meetings with MWRI managing staff (Undersecretaries and General Directors) within the five target directorates.
- Definition and approval of flow monitoring network within each district.
- Facilitation of the calibration and transfer to districts of 41 current-meters (new equipment previously owned by Telemetry Department).
- Procurement of 30 flow monitoring boats to the IWMDs.
- Support to identification and assignment of water monitoring and water distribution staff within IWMDs.
- Preparation of flow measurement guidelines.
- Preparation and implementation of courses on flow monitoring and GPS in each IWMD (3 training events, trainees were 65 IWMD staff).

- Initiation of water flow monitoring and structure calibration program both at directorate and district levels (ongoing):

Table 7 Water Flow Monitoring Points

Directorate	Zifta	W. Sharkiya	East Qena	West Qena	Aswan	Total
No of points monitored	25	20	12	13	20	90

- Procurement and installation in each IWMD of three computers and related office equipment (two printers, one scanner, one photocopy machine, one fax, etc.).
- Preparation and implementation of courses on basic computer skills in each IWMD (11 training events, 12 days each, trainees were 250 IWMD staff).
- Preparation and implementation of courses on computer maintenance in each IWMD (five training events, four days each, trainees were 85 IWMD staff).
- Development or updating of MISD, complaints, violations, water levels, and discharge databases.
- Installation of these databases at district level (ongoing).
- Procurement of field equipment (GPS handsets, digital cameras).
- Preparation of Year 2 Workplan, training plan and procurement plan.

Table 8 Task 3 Accomplishments vs Project Benchmarks

<i>Task No. 3: Equitable Allocation of Water Resources - Year 1</i>				
	Activities	Outputs	Targets	Completed
			Y1	Y1
Task No. 3: Equitable Allocation of Water Resources	1. Institutional arrangements	IWMD distribution staff assigned	100%	100%
	2. Water monitoring	Monitoring networks, water monitoring data (flow and quality)	30%	30%
	3. MISD	Water requests and allocation plans prepared by IWMDs	Yr 2	Yr 2
	4. Water resource databases	Computer water management systems in IWMDs	30%	30%
	5. Digital mapping and BC data	Digital mapping systems in Directorates	30%	Yr 2
	6. Integrated water management planning	Water resource inventories and management plans	Yr 2	Yr 2
	7. Training and capacity building activities	Nb of training courses delivered	30%	30%

Task 4: Improved Maintenance and Upgrading of Water Management Equipment

Ms. Cheryl Groff (AED), Sr. Education, Communication, and Public Awareness and Participation Specialist, was the coordinator for this task. Dr. Wadie Fahim Mankarious (IRG), STTA Technical Advisor, served as facilitator for the focus groups and interviews as well as contributing the analysis and the report. Activities carried out during the first year of the project by LIFE IWRM Task #4 team included:

- Interviews were conducted with the staff of eight Technical Agricultural, Commercial and Industrial schools in Upper and Lower Egypt; Edfo Industrial Secondary School;

Edfo Commercial Technical School; Edfo Technical Agricultural School; in Edfo, Aswan Governorate; Luxor Industrial School, Luxor commercial School, Luxor Agricultural School, in Qena Governorate; Amr Allah Baleigh Industrial Secondary School; Kafr Negm Commercial Technical School; at Ibrahimiya District, Sharkiya Governorate.

- Focus group meetings were conducted also with Branch Canal Water Users Association Boards in Edfo, Aswan, Luxor, Qena, Ibrahimiya, and West Sharkiya. The total numbers of boards attending the meetings were nine and the number of participants was 35 members.
- The draft Task #4 Report was submitted to USAID for review and a presentation of the key findings and recommendations was made at USAID. Subsequently the Task #4 Report was finalized and submitted.

In brief the objective of Task #4 was multi-faceted.:

- To determine whether Egyptian farmers, particularly those in the Integrated Water Management Districts, are in need of improved service for the maintenance and repair of their irrigation equipment, namely diesel pumps.
- To determine whether Egyptian farmers from these areas where Branch Canal Water Users Associations are being established, are in need of basic business training to appropriately manage the associations.
- To determine whether or not the Governorate technical schools have the capacity to provide either the training for mechanics of irrigation equipment , and/or the basic management skills training for the BCWUA board members.

Table 9 Task 4 Accomplishments vs Project Benchmarks

Task 4: Improved Maintenance and Upgrading of Water Management Equipment				
	Activities	Outputs	Targets	Completed
			Yr 1	Yr 1
Task No. 4	1. Verify Findings on Pump Maintenance	Pump Maintenance needs determined	100%	100%
	2. Determine Training Needs of BCWUA	Needs Assessment completed	100%	100%
	3. Conduct Rapid Assessment of Training Facilities	Rapid Assessment Completed	100%	100%

In summary, the Task # 4 team recommends the following:

Access & Improved Repair/Maintenance of Irrigation Equipment

To address the issue of quality parts the Task #4 team recommends the development of public awareness materials to encourage farmers to invest in the name brand, quality parts.

If funding can be secured ½ day training seminars on pump maintenance and simple repairs could be organized and offered for interested farmers through BCWUAs

Business Management Skills & Training

Although board members do not self-report a need for business training, experience in the formation of water user associations indicates that BCWUAs would benefit from basic business planning/management, as well as training in budgeting/ accounting. If/when additional training can be secured for this purpose, the Task #4 team recommends that on-the-job training be provided by the project to BCWUA members. This training could be offered in conjunction with the distribution of small grants to BCWUAs to implement activities identified in their Action Plans.

Capability of Technical Schools to Provide Training

To prepare better qualified mechanics in future specialized in the repair and maintenance of agricultural & irrigation equipment, the Task #4 team recommends that USAID encourage the MOE and the Central Department of Technical Education to develop a specific, licensed career track for young persons interested in providing this service.

Although revamping the Technical School programs is far beyond the scope of this project, the Task #4 team recommends that USAID encourage the MOE and the Central Department of Technical Education to develop and promote various short evening courses for adults. The Task #4 team recommends that age appropriate water resources concepts including water user participation, be added to ALL public school programs from primary through secondary.

Task 5: Environmental Services for Improving Water Quality Management

Dr. Wadie F. Mankarious, IRG STTA Technical Advisor, is the Task Leader of this task for LIFE IWRM. Eng. Mohamed Hamed (IWMU) is coordinating this task for MWRI/IWMU. Environmental Quality international (EQI) provided technical assistance to the activity at the beginning. Activities carried out during year one by LIFE IWRM team included:

- Prepared a work plan for Task #5 for implementing a pilot project. LIFE establishment cooperative linkage with key players of the activity.
- Several branch canals were identified for consideration as pilot and the decision was made to carrying out the pilot on Senbo Branch Canal, South Zifta IWMD, Zifta Directorate.
- Collection and review of secondary and field data.
- Initiated public participation process by developing cooperative linkages with MWRI Zifta IWMD, Senbo Branch Canal Water User Association, Local Council, and Senbo Community Development Association.
- Community stakeholders expressed full willingness to participate, and are prepared to contribute in the form of land for proposed solid and liquid waste alternatives as long as the proposed initiatives are community owned and driven.
- Initiated the design and selection of the most appropriate alternative solutions for the identified solid and liquid waste problems. Presentation was given to USAID on 23 March on possible alternatives.
- Conducted several focus group sessions and structured meetings to discuss the proposed alternatives.
- Initiated water quality sampling for Senbo Canal and Damnhore El Wahsh Drain. Sampling is being carried out by MWRI Water Quality Laboratory.

- A feasibility plan describing alternatives and interventions with recommendations for implementing the pilot project that includes costs, economic and financial feasibility of alternatives, O&M requirements, identifies institutional constraints and requirements, etc.
- Stakeholder mapping plan was prepared
- A field survey was conducted to understand the status quo of solid waste collection, sanitation and water quality and also to know people satisfaction with the provision of these services.
- Field study trips were arranged for the CDA and Sinbo BCWUA Board members. The study trips were to Katamaya, Cairo to visit solid waste recycling site. Another visit was conducted to Hawamdia District to visit a DBAF wastewater treatment plant.
- A training course on “Financial Management” for the CDA and BCWUA Board Members was conducted.
- In order to cooperate with other donors, a proposal to the Japanese Embassy to leverage Japanese grant funds for construction and equipment for the Sinbo Liquid Waste Water Treatment Pilot was submitted. A meeting was held with the Japanese Embassy, CDA, USAID, IWMU, and LIFE IWRM to discuss the proposal. Up till today no response, so the project will rely on its limited resources to implement solutions to wastewater and solid waste problems.
- Groundwater well inventory was conducted and monitoring program is being developed.
- On the Job Training Program was conducted for the district technicians to enhance their capability to survey groundwater wells within the pilot area. The well locations have been plotted.
- A meeting was held with the private sector contractor who has been successfully collecting domestic solid waste from 60 % of Senbo’s residential area beginning in November 2004. An awareness program is being considered to encourage participation of the remaining households.
- A field visit for the CDA and BCWUA members to the Agricultural Waste Recycling Center at Moshtohor was arranged by the project. Thirteen participants attended. The purpose of the visit was to introduce the different techniques of agricultural recycling to the members.
- Agricultural Waste recycling design report prepared for Senbo Pilot area was issued.
- Liquid Waste design report was prepared.
- To initiate filed implementation of liquid and solid waste recycling alternatives, a meeting was held on 25 August with heads of Senbo CDA and BCWUA to discuss the next steps by all parties. Eng. Gamil Mahmoud (MWRI/IWMU) and Eng. Wafaa (USAID) participated.

Table 10 Task 5 Accomplishments vs Project Benchmarks

Task No. 5: Environmental Services for Improving Water Quality Management				
	Activities	Progress indicators	Targets	Completed
			Y1	Y1
Task No. 5: Water Quality Management	5.1 Collect and Review Data on Existing Solid and Liquid Waste Disposal/Re-use Practices	Waste Water Reuse Profile Prepared	100%	100%
	5.2. Stakeholders Mobilization	Working Groups Formed	100%	100%
	5.3 Assess Alternative Methods for Treatment and Disposal/Re-Use of Solid Waste and Wastewater	Waste Water Reuse Alternatives Selected	100%	100%
	5.4 Pilot Projects	Pilot Project Implemented	50%	10%
	5.5 Formation of Management Consortia	Management Consortium Formed	50%	50%
	5.6 Training and Awareness Raising	Public Awareness Workshops held	25%	30%

Task 6: Improved Wastewater Reuse Practices

Dr. Wadie Fahim Mankarious (IRG), STTA Technical Advisor, is the Task Leader for this task. Eng. Karim El-Jisr (ECODIT) is providing expat STTA support. Joseph Karam (ECODIT) also provided short-term input for the work plan preparation phase. Activities carried out during Year one by LIFE IWRM team included:

- A Task 6 committee, headed by Ministry State of Environmental Affairs (MSEA) with representatives from Ministry of Agriculture and Land Reclamation (MALR), Ministry of Water Resources and Irrigation (MALR), and LIFE-IWRM team, was formed.
- Base line data was collected at the demo site on water quality and soil type and quality. A topographic survey was also conducted.
- Met with Farmers Associations established under AERI-El SHAMS Project in Luxor to brief them on the activity and initiate cooperation for crop marketing.
- Collected information on the BCWUAs nearest to the demo site and surveyed the agricultural technical school graduates.
- USAID and MSEA have sent a letter to the Governor of Luxor to approve the area for the demo site. At the request of USAID and Minister of MSEA, the Governor of Luxor approved about 5 feddans for the demo site near the Luxor wastewater treatment plant retention ponds.
- The Egyptian Code for Wastewater re-use has been signed and published. The main report of the code was translated into English and sent to USAID.
- MSEA/EEAA, MALR, USAID and LIFE IWRM team have selected the crops for the demo site from the approved Egyptian Code.
- A draft Environmental Management Plan (EMP) was prepared
- A draft Irrigation and Crop Management Plan (ICMP) is in process.
- The design of the irrigation network and the pumping unit was prepared and approved by MSEA/EEAA, MALR, and USAID.

Table 11 Task 6 Accomplishments vs Project Benchmarks

Task 6: IMPROVING WATER REUSE PRACTICES				
	Activities	Indicator	Target	Completed
			Yr 1	Yr 1
Task No. 6: Improving Water Reuse Practices	1. Site Selection	Demo site and project office identified	100%	100%
	2. Crop Selection and Cropping Layout	Crops selected and approved	100%	100%
	3. Irrigation and Crop Management Plan	Irrigation and Crop Mgt Plan completed	100%	90%
	4. Environmental Monitoring Plan	EMP developed and approved	100%	70%
	5. Field Implementation	Irrigation network installed and tested; Crops planted	100%	(Yr2)
	6. Private Sector Participation	Draft MOU	(Yr2)	(Yr2)
	7. Preliminary economic evaluation of water reuse in Luxor	Economic Evaluation Complete	(Yr 2)	(Yr 2)

Task 7: Graduate Degree Training

Dr. Ibrahim Elassiouti (LLTA, Deputy Chief of Party) is coordinator for this task. He is being assisted by Dahlia Hamdy (LTTA, Training Coordinator). Activities carried out during the report period by LIFE IWRM team included:

- Twelve persons were identified for M.Sc Graduate Degree Training.
- All candidates took the TOEFL exam.
- Two of MWRI staff, enrolled at Utah State University for Fall 05, one in the Department of Irrigation and Biological, and the other in the Department of Civil and Environmental Engineering.
- Two of MWRI staff enrolled at American University in Cairo for Fall 05 in the Department of Environmental Engineering.
- Eight persons registered for M.Sc. Degree in Irrigation and Hydraulics and Environmental Engineering in Cairo and Ein-Shams Universities.
- Head of Irrigation Advisory Services attended the Third International Conference on “Water District Management and Governance”, San Diego, USA.

Table 12 Task 7 Accomplishments vs Project Benchmarks

Task Graduate Degree Training for MWRI Staff				
	Activities	Process Indicator	Target	Completed
			Yr 1	Yr 1
Task No. 7	1. Determine MWRI Training Priorities	MWRI Priorities for graduate degree training established	100%	100%
	2. Design Procedure for Selection of Trainees	MWRI Selection Panel Convened	100%	100%
		Candidates Selected	100%	100%
	3 Selection of Training Institutes in USA & Egypt	Instituion selected for prospective trainees	100%	100%
	4. Assist Trainees with Applicaton Process	Candidates applications to US and Egyptian institutions submitted	50%	100%
	5. Assist US bound Trainees	Pass TOEFL Exams	50%	100%
		Pre-Departure Orientation sessions(s) hold	50%	100%
		US Bound trainees depart Egypt	50%	100%
	6. Monitor Progress of Trainees in USA & Egypt	Transcripts from Training Instituions, Degreed candidates return to MWRI	50%	50%

Monitoring & Evaluation

Dr. Ibrahim Elassiouti (LLTA, Deputy Chief of Party) is coordinator for this component. Eng. Alaa Abbas (IWMU) and Dr. Khaled Wassif (MWRI) provided local STTA support. Dr. Mark Svendsen (DAI) provided expatriate STTA support. Activities carried out during the report period by LIFE IWRM team included:

- Reviewed the applicable USAID SO results statements.
- Identified new or refined existing and illustrative objectives and indicators to measure results.
- Assembled secondary data to compute baseline and year 1 values of indicators.
- Developed a comprehensive M&E Plan that identified monitoring parameters with clear indicators and benchmarks for determining progress against applicable SO results statements.
- Established indicators and performance targets for years 1, 2, 3, and 4 of the contract with clear responsibilities delineated for data collection against targets and reporting mechanisms.
- Conducted a Farmer Baseline Survey in each of the 27 IWMD with approximately 5000 total respondents.
- Developed a data base for storing basic data on the IWMDs and evaluated baseline conditions in each of the Project IWMDs.

Education, Communication, Public Awareness and Participation

Ms. Cheryl Groff (AED), Sr. Education, Communication, Public Awareness and Participation Specialist, is coordinator for this task. Dr. Hisham Ali Mustafa (MWRI) provided STTA support. Four members of the Water Communication Unit staff have been engaged in various cross-cutting communication activities including planning, shooting and editing video, still photography, writing, and design for program materials.

Activities carried out during the first year of the LIFE IWRM project by the communications team included:

- Project logo & slogans were developed and approved
- Project stationary, envelopes, and business cards to promote project identity were finalized and printed.
- 2,500 Project brochures in English & Arabic were printed and distributed to Regional and IWMD offices.
- 5,000 Project brochures in Arabic were printed and distributed.
- Worked with Task #3 team to design, gain approval, and launch the Project website.
- 5,000 BCWUA Booklets for Board & Representative Assembly members were printed, and distributed to Regional Offices.
- 30,000 BCWUA FAQ Flyers for branch canal water users were printed, and distributed to Regional Offices.
- 5,000 Project folders produced
- 2,000 Notebooks with slogan & logo produced for use in events & training
- Reviewed IWRM video with MWRI Senior Management and re-edited the program as needed. Both English & Arabic versions of the program were approved, duplicated, packaged in both CD & VHS format and is in use during Task #1 and Task #2 trainings.
- Designed and produced signage for Regional Offices.
- Reviewed existing training materials for Task #1 and #2 and began process of developing new materials.
- Drafted memorandum and initiated cooperation with the Water Board project on communication products and activities.
- 5,000 cartoon posters on the benefits of IWMD & BCWUAs produced and distributed
- 5,000 illustrated posters to protect Nile water from pollution produced and distributed
- Completed first draft of IWRM District booklet
- Produced video for farmers on benefits of participation entitled “Start with Yourselfes”
- BCWUA campaign slogan approved and new symbol in development for use on giveaways for BCWUA
- Giveaway mug with logo and slogan produced to promote concept of IWRM Districts
- Photographic archive developed and frequently dubbed to share with Regional offices and District staff
- Banners and power-point presentations for events

Significant progress has also been made to engage the Water Communication Unit (WCU) in the planning process for next years public awareness efforts, particularly those related to BCWUA establishment and activation through the IWMDs. A communication plan and materials matrix was developed. The WCU is willing to be involved not only in the production of new materials as during year one, but also to participate with the project in supporting the IWMDs to convene Governorate and District level events to publicize BCWUA formation, as well as to collaborate to gain the attention of existing media. This is a positive sign for the coming year as well as for sustainability of the efforts initiated by the project. Specifically, through their work on the Farmer Participation video entitled "Start with Yourselfes", which is currently in review by H.E. and Senior Management, the WCU has signaled that they are prepared to focus on IWMDs and BCWUAs formation as a Ministry initiative to be taken nationwide.

Table 13 Education, Communication, & Public Awareness Materials Year 1

TITLE/ITEM	CONTENT FORMAT/SIZE	LANGUAGE	INTENDED AUDIENCE(S)	DISTRIBUTION
BCWUA FAQ /Flyer	General Brief Purpose & Benefits	Arabic Only	Potential & BCWUA Members	Completed: -1st Run 5,000 distributed IAS Upper & Lower Egypt -2nd Run Printed 30,000 IWRM project
BCWUA Board/ Booklet	BCWUA Organizational Structure, Roles & Responsibilities	Arabic Only	Distribution: BCWUA Board Membership	Completed: 1st Run 2,000 distributed to 94 established boards in 2004; 2nd Run printed 5,000 IWRM project
IWRM Project/ Brochure	Project Overview	Combined English & Arabic	Distribution General: Donors, Project Guests MWRI, IAS, IWMD staff, Stakeholders	Completed: 2,000 Total (IMRM project Reg. Offices, IWMDs)
IWRM Project/ Brochure	Project Overview	Arabic only	MWRI, IAS, IWMD staff, Stakeholders	Completed: 5,000 Total (IMRM project Reg. Offices, IWMDs)
IWRM Project/ Folder	A4, full color, Matching Project Brochure	Combined English & Arabic	Distribution Training or Workshop Events: Event Guests, All Types of Trainees IAS, IWMD staff, BCWUA boards	Completed
IWRM/Video	Beta Original; VHS & DVD; 15 min.	Arabic English subtitle	Screen General: Donors, Project Guests, MWRI, IAS, IWMD staff, Stakeholders, BCWUA	Completed
IWMD Poster: Benefit of BCWUA	Cartoon 50 x 70 poster	Arabic	IWRM District Staff MWRI staff, BCWUA members	Completed
Waterway/Nile Pollution Poster	Cartoon 50 X 100	Arabic	Sinbo Pilot, BCWUAs & IWMD General Public	Completed
IWRM Project/Website	Overview, Maps, Contacts, Links, Publications	English & Arabic	General Audiences	Completed Approved & on-line www.iwrmeg.org
Photographs/ multi-purpose	Digital Still Images from Project all aspects	N/A	Multi-purpose General Audiences	On-going collection Ready for use in Power- point presentations, reports, training materials, print materials.
IWRM Project identity	logo & office stationary package	Arabic & English	Multi-purpose Public Awareness	Completed

Training

Dahlia Hamdy (LTTA, Training Coordinator) is coordinator for this component.

Activities carried out during the report period by LIFE IWRM team included:

- Updated the training status sheet for the first year.
- Prepared the training work plan for year 2.
- Entered all the required data for US training in the TraiNet.
- Prepared, coordinated, and followed up with the regional offices in Lower & Upper Egypt for all project related training programs.
- Carried out training evaluation for all courses.
- Identified, negotiated prices, and prepared purchase orders for services of training providers as required.
- Follow-up the US Master Degrees and the Local Master Degrees.

The following table shows the number of participants which have been trained under the project through the end of the reporting period.

Table 14 Participants Trained to Date

Total to Date			Quarterly Total		
Total	Male	Female	Total	Male	Female
1524	1261	263	751	613	138

Training conducted for the Year is presented in Annex F. Training conducted during the 4th Quarter is listed below:

Table 15 Training Conducted during the Previous Quarter

No	Code	Event	Date	Venue	No. of days	No. Part	Female No.
1	8.2.13	July Monthly Meeting	10-Jul-05	Zifta & W. Sharkiya	1	16	2
2	8.2.14	July Monthly Meeting	12-Jul-05	Qena	1	15	3
3	8.2.15	July Monthly Meeting	13-Jul-05	Aswan	1	14	1
4	8.2.16	Steering Committee Meeting	19-Jul-05	Cairo	1	13	2
5	8.2.17	August Monthly Meeting	11-Aug-05	Zifta & W. Sharkiya	1	14	2
6	8.2.18	August Monthly Meeting	16-Aug-05	Qena	1	16	3
7	8.2.19	August Monthly Meeting	17-Aug-05	Aswan	1	13	1
8	8.2.20	Sept. Monthly Meeting	11-Sep-05	Zifta & W. Sharkiya	1	20	2
9	8.2.21	Sept. Monthly Meeting	20-Sep-05	Qena	1	24	3
10	8.2.22	Sept. Monthly Meeting	21-Sep-05	Aswan	1	20	1
11	2.6.2	Canal Grouping	3-Jul-05	W. Sharkiya	3	50	10
12	2.6.4	Canal Grouping	11-Jul-05	Aswan	3	52	9
13	2.7.2	OJT Canal Grouping	6-Jul-05	W. Sharkiya	15	48	8
14	2.7.4	OJT Canal Grouping	14-Jul-05	Aswan	15	42	7
15	2.8.1	Election & Roles & Responsibility of RA	7-Aug-05	Zifta	4	47	10
16	2.8.2	Election & Roles & Responsibility of RA	14-Aug-05	W. Sharkiya	4	50	10
17	2.8.3	Election & Roles & Responsibility of RA	7-Aug-05	Qena	4	52	10
18	2.8.4	Election & Roles & Responsibility of RA	13-Aug-05	Aswan	4	52	9
19	2.9.1	OJT Election & Roles & Responsibility of RA	11-Aug-05	Zifta	15	47	10
20	2.9.2	OJT Election & Roles &	18-Aug-05	W. Sharkiya	15	50	10

No	Code	Event	Date	Venue	No. of days	No. Part	Female No.
		Responsibility of RA					
21	2.9.3	OJT Election & Roles & Responsibility of RA	11-Aug-05	Qena	15	52	10
22	2.9.4	OJT Election & Roles & Responsibility of RA	17-Aug-05	Aswan	15	52	9
23	2.13.11	Conflict Management & Internal Regulations	5-Jul-05	Zifta	3	36	4
24	2.13.12	Conflict Management & Internal Regulations	31-Aug-05	Zifta	2	62	10
25	2.13.13	Conflict Management & Internal Regulations	28-Aug-05	W. Sharkiya	3	99	15
26	2.13.14	Conflict Management & Internal Regulations	25-Sep-05	Qena	2	35	4
27	2.13.33	Conflict Management & Internal Regulations OJT	9-Jul-05	Zifta	15	6	1
28	2.13.34	Conflict Management & Internal Regulations OJT	August	W. Sharkiya	15	23	5
29	2.13.35	Conflict Management & Internal Regulations OJT	August	Zifta	15	11	4
30	3.6.1	Computer Maintenance	3-Jul-05	Zifta	4	18	8
31	3.6.2	Computer Maintenance	24-Jul-05	W. Sharkiya	4	18	7
32	3.6.3	Computer Maintenance	7-Aug-05	Qena	4	14	2
33	3.6.4	Computer Maintenance	21-Aug-05	Qena	4	15	4
34	3.6.5	Computer Maintenance	4-Sep-05	Aswan	4	18	12
35	3.7.1	Software Installation	24-Aug-05	Qena	1	14	4
36	3.7.2	Software Installation	25-Aug-05	S. Qena	1	11	3
37	3.7.3	Software Installation	11-Sep-05	Aswan	2	18	12
38	3.2.3	Water Flow Monitoring - GPS Training Course	10-Jul-05	Qena/Aswan	2	45	4
39	3.3.1	OJT Water Flow Measurement	May/June	W. Sharkiya	60	18	0
40	3.3.2	OJT Water Flow Measurement	May/June	Qena	60	31	1
41	3.3.3	OJT Water Flow Measurement	May/June	Zifta	60	18	4
42	6.1.1	Improving Waste Water Reuse Practices	24-Jul-05	EEAA-Cairo	1	6	0
43	6.1.2	Improving Waste Water Reuse Practices	27-Sep-05	EEAA-Cairo	1	8	1
44	8.5.3	Survey Data Collectors	4-Jul-05	Qena	2	54	3
45	8.5.4	Survey Data Collectors	6-Jul-05	Aswan	2	48	5
46	8.5.5	OJT Survey Data Collection	1-Jul-05	Zifta / W. Sharkiya	15	60	1
47	8.5.6	OJT Survey Data Collection	1-Jul-05	Qena/Aswan	15	102	8

Procurement

Mahmoud Said, (LLTA Procurement Coordinator) is responsible for this activity. Activities carried out during the report period by LIFE IWRM team included:

- Prepared Life of Project (LOP) Procurement Plan. The plan was approved by USAID and MWRI. It has been updated for Year 2.
- Prepared specifications and procured project equipment IAW LOP procurement plan.
- Custom Clearance for three US air shipments.
- Successfully installed and transferred all supplied equipment to MWRI.
- MWRI supplied over 30 current meters allowing considerable cost savings to the Project.

The status of the commodity procurement program is presented below:

Table 16 Project Office Setup/Equipment (Cairo and Regional Offices)

No.	Item	Qty	Source	Status
Office Set-Up and Equipment				
0-1	Cairo Office Set-up	1	Local	Delivered
0-2	Regional Office Set-Up	2	Local	Delivered
0-3	Telephone System Cairo Off	1	Local	Delivered
0-4	Telephone System - Regional Off	2	Local	Delivered
0-5	Fax - Cairo Office	1	Local	Delivered
0-6	Fax - Regional Office	2	Local	Delivered
0-7	Photocopier - Cairo Office	1	Local	Delivered
0-8	Photocopier - Reg. Office	2	Local	Delivered
Computer Equipment				
0-9	Cairo Office LAN	1	Local	Delivered
0-10	Regional Office LAN	2	Local	Delivered
0-11	Desktop computer (local)	9	Local	Delivered
0-12	Desktop computer (US)	8	US	Delivered
0-13	Uninterrupted Power Supply	17	Local	Delivered
0-14	Notebook Computer (local)	4	Local	Delivered
0-15	Notebook Computer (US)	4	US	Delivered
0-16	Small scanner	3	Local	Delivered
0-17	Document scanner	1	US	Delivered
0-18	A3/A4 Network printer	1	Local	Delivered
0-19	Desk-top network printer	6	Local	Delivered
0-20	Stand-alone printer	5	Local	Delivered
0-21	AO Printer	2	Local	Delivered
0-22	Color ink-jet printer	3	Local	Delivered
0-23	USB Flash Memory Stick	20	Local	Delivered
0-24	External Hard Drive	3	Local	Delivered
0-25	Tape backup Drive	1	Local	Under Review
Training Equipment				
0-26	Overhead Projector	3	Local	Delivered
0-27	VCR	3	Local	Delivered
0-28	Digital Video Camera	1		Under Review
0-29	Data Projector	3	Local	Delivered
0-30	Projector Screen	3	Local	Delivered
0-31	Flip Chart Stand	6	Local	Delivered
0-32	Digital Camera, small	4	US	Delivered
0-33	Digital Camera, High Quality	1	US	Delivered

No.	Item	Qty	Source	Status
0-34	TV Monitor	3	Local	Delivered
0-35	Receiver	1	Local	Delivered

Table 17 Performance Requirement I Equipment (Task 1,2,3)

No.	Item	Qty	Source	Funding	Status
1	District Computer Equipment and Peripherals Set				
1-1	Standard Computer	60	Local	EGP	Delivered
1-2	Database Computer	39	Local	EGP	Delivered
1-3	GIS Mapping Computer	8	US	US\$	Delivered
1-4	Notebook	4	US	US\$	Delivered
1-5	Color Printers	31	Local	EGP	Delivered
1-6	Laser Printer	38	Local	US\$	Delivered
1-7	A4 Scanner	23	Local	US\$	Delivered
1-8	A3 Scanner	8	US	US\$	Delivered
1-9	USB Flash Memory (256 MB)	32	Local	US\$	Delivered
1-10	USB Hard Drive	20	US	US\$	Delivered
1-11	Smart UPS	103	Local	EGP	Delivered
1-12	Stabilizers	97	Local	EGP	Delivered
1-13	Tables	85	Local	EGP	Delivered
1-14	Chairs	85	Local	EGP	Delivered
2	District Office Equipment Set				
2-1	Small Photocopier	23	Local	US\$	Delivered
2-2	Stabilizers	23	Local	US\$	Delivered
2-3	Fax Machine	23	Local	EGP	Delivered
2-4	Air-conditioning	28	Local	US\$	Delivered & Installed
3	District Training Equipment Set				
3-1	Flip Charts Stands	28	Local	US\$	To be supplied after rehab of a Tng. room
3-2	TV Sets	23	Local	US\$	To be supplied after rehab of a Tng. room
3-3	VCRs	23	Local	US\$	To be supplied after rehab of a Tng. room
3-4	Data Show	2	Local	US\$	Delivered
3-5	Notebook Computer	2	US	US\$	Delivered
3-6	Projector Screens	2	Local	US\$	To be supplied after rehab of a Tng. room
3-7	Digital Camera, High quality	3	US	US\$	Delivered
3-8	Furniture	32	Local	EGP	To be supplied after rehab of a Tng. room
3-9	Pin Board	6	Local	US\$	Delivered
3-10	White board	23	Local	US\$	Delivered
3-11	Digital Cameras	43	US	US\$	Delivered
3-12	Sound System	7	Local	EGP	To be supplied after rehab of a Tng. room
4	District Internet Access and LAN Installation				
4-1	HUB	35	Local	US\$	Delivered
4-2	DSL Modem	35	Local	US\$	On-hold; subject to review
5	District Mapping Equipment Set				
5-1	Paper Maps Scale 1:50,000	3	Local	US\$	Delivered
5-2	Paper Maps Scale 1:25,000	3	Local	US\$	Delivered
5-3	Paper Maps Scale 1:2,500	1	Local	US\$	On-hold; subject to review
5-4	GPS	64	US	US\$	Delivered
5-5	Digital Maps	500	Local	US\$	On-hold; subject to review
5-6	Satellite imagery	1	US	US\$	Delivered

No.	Item	Qty	Source	Funding	Status
6	District Water Monitoring Equipment Set				
6-1	Fiber Glass Boats	30	Local	EGP	Delivered
6-2	Current Meters	10	Local	US\$	Provided by MWRI
6-3	Winches + Taglines (Depth meter)	41	Local	US\$	Delivered
6-4	Winches + Taglines (Bank to bank)	41	Local	Local	Delivered
6-5	Stop watches	41	Local	US\$	Delivered
6-6	Head phones	41	Local	US\$	Delivered
6-7	Weights	41	Local	US\$	Delivered
6-8	Data logger with GSM Modem	2	US	US\$	Year 2
6-9	Gate position sensor	10	US	US\$	Year 2
6-10	Water level sensor (Pulse)	5	US	US\$	Year 2
6-11	Pump Monitoring sensors with accessories	20	Local	US\$	Year 2
6-12	PDA Communicators	10	US/Local	US\$	2 only delivered
7	Directorate Water quality equipment Set				
7-1	Portable TDS	26	US	US\$	Supplied; to be Delivered
7-2	PH Conductivity Do TM	13	US	US\$	Supplied; to be Delivered
7-3	Portable Turbidity Meter	6	US	US\$	Under review
7-4	Connection to Computer	13	US	US\$	Supplied; to be Delivered
7-5	Software for Computer Interface	1	US	US\$	Supplied; to be Delivered

III. ACTIVITIES PLANNED FOR NEXT QUARTER

Task 1: Formation of Integrated Water Management Districts

The following activities are planned for the next quarter:

- Monthly coordination meetings with MWRI managing staff (Undersecretaries, General Directors, and IWMD directors) within the five target directorates. Dissemination of information, monitoring of progress, discussion of upcoming steps, identification of roadblocks, sharing of experiences.
- Support to preparation of IWMD monthly reports.
- Support to establishment of training rooms in each IWMD.
- Support to assignment and redefinition of responsibilities of all technical and administrative staff (ongoing).

Task 2: Formation of Branch Canal Water Users' Associations

The following activities are planned for the next quarter:

- Finalization of streamlining of BCWUA formation process. Updating of training courses and material for IWMDs to implement directly BCWUA formation.
- Preparation and implementation of governorate seminars for stakeholder awareness regarding BCWUAs (four events).
- Preparation and implementation of introduction training events for 14 IWMDs where no BCWUA exist so far (four events).
- Support to BC data collection in these 14 BCWUAs (ongoing). Implementation of On-the-Job training activities by district level IAS staff under the supervision of IWMD directors. Outputs will include all data needed for forming BCWUAs (characteristics of branch canals, names of water users, etc.)
- Preparation and start of implementation of preparation training events for 14 IWMDs where no BCWUA exist so far (total seven events).
- Preparation and start of implementation of activation training events for 11 IWMDs with existing BCWUAs (total five events).
- Support to regular IWMD-BCWUA meetings in these 11 IWMDs (ongoing).

Task 3: Equitable Allocation of Water Resources

The following activities are planned for the next quarter:

- Continuation of water flow monitoring and structure calibration program at directorate and district levels.
- Preparation of structure calibration guidelines.
- Preparation of water quality monitoring guidelines.
- Continuation of modification, and support to MISD, complaints, violations, water levels, and discharge databases.
- Updating of MISD guidelines.
- Preparation and implementation of MISD training activities (introduction/confirmation of MISD concept, purpose and procedures, use of corresponding database).

Task 4: Improved Maintenance and Upgrading of Water Management Equipment

The following activities are planned for the next quarter:

- Follow-up on results of assessment per recommendations of USAID, MWRI, and other stakeholders. Further activity is not anticipated under Task #4 at this time. Any follow-on activities will be based upon the recommendations and requests of USAID and the MWRI following their assessment of the Final Task #4 Report findings and recommendations.

Task 5: Environmental Services for Improving Water Quality Management

The following activities are planned for the next quarter:

- Construction of the DBAF wastewater treatment facility in the in pilot Area
- Formalization of the consortia
- Signing MOU between MWRI and CDA/BCWUA
- Continue monitoring Water quality
- Initiate training of the staff on the DBAF system
- Initiate a public awareness program on Domestic Solid Waste

Task 6: Improved Wastewater Reuse Practices

The following activities are planned for the next quarter:

- Orientation to FA and BCWUA
- Orientation to Graduates
- Initiate Training of Graduates on safe agricultural practices
- Prepare draft Environmental Monitoring Plan (inc. sampling protocols and H&S issues)
- Seek EMP approval from USAID and MSEA
- Prepare crop management plan based on crop selection
- Install irrigation system
- Plant crops and start irrigation
- Monitor irrigation and groundwater

Task 7: Graduate Degree Training

The following activities are planned for the next quarter:

- Monitor status and progress of all trainees.
- Provide financial and logistical support for US Institution Trainees.
- Designing and overseeing procedures for the selection of additional trainees.

Monitoring and Evaluation

The following activities are planned for the next quarter:

- Refine M&E data reporting system.
- Complete computation of Baseline indicator values in 25 project IWMDs.

- Assemble relevant secondary M&E data from all project IWMDs.

Education, Communication, Public Awareness and Participation

The following activities are planned for the next quarter:

- Upon MWRI approval subtitle, duplicate, package, and distribute the farmer participation video entitled "Start with Yourselves".
- Finalize draft IWRM booklet for District and other MWRI staff for printing.
- Continue work on the IWMD field manual to establish and support BCWUAs.
- Assist with planning, preparation and implementation of four governorate seminars for stakeholder awareness regarding BCWUAs.
- Assist with preparation and implementation of Task #2 training events for IWMDs.
- Continue to provide the project with communication support across task areas as needed.

Training

The following training courses are planned for the next quarter:

Table 18 Training Courses Planned for Next Quarter

ID Code	Course Title	Task	Events	Date	Venue
8.2.27	MOU Signing Ceremony	2	2	23 & 25 Oct.	Lower Egypt
8.2.28	MOU Signing Ceremony	2	2	24 & 26 Oct.	Upper Egypt
2.1.1	Gov. Stakeholder Seminars	2	1	2 nd week of Nov.	Lower
2.1.2	Gov. Stakeholder Seminars	2	1	2 nd week of Nov.	Lower
2.1.3	Gov. Stakeholder Seminars	2	1	3 rd week of Nov.	Upper
2.1.4	Gov. Stakeholder Seminars	2	1	3 rd week of Nov.	Upper
2.1	Introduction Workshop	2	4	Nov. – Dec.	Each Directorate
2.2	Preparation Workshop	2	8	Dec.- Jan.	2 L - 6 U
2.3	OJT Data Collection	2	4	ON GOING	Each Directorate
3.4	OJT Water Flow Monitoring	3	4	ON GOING	Each Directorate
3.7	MISD Program	3	6	Dec.	Each Directorate (2 L/4 U)
3.8	OJT MISD Program	3	4	Dec.	Each Directorate (2 L/4 U)
5.2	Agr. Waste Recycle System	5	2	Dec.- Jan	Upper Egypt
6.1	Improving Water Reuse Practices	6	5	Dec. – Jan.	Upper Egypt
6.2	OJT Improving Water Reuse Practices	6	12	Dec. – Jan.	Upper Egypt
6.4	Improving Water Reuse Practices	6	6	Dec. – Jan.	Upper Egypt

Procurement

Projected procurement activities for next quarter include the following activities:

- Continue procurement, supply, installation, and transfer of Task 1, 2 and 3 commodities as required.
- Continue procurement, supply, installation, and transfer of Task 5, 6 materials and equipment as required.
- Prepare Project Equipment inventory report
- Prepare MWRI equipment transfer report.

IV. PROBLEMS, ISSUES, AND LESSONS LEARNED

Task 1: Formation of Integrated Water Management Districts

The magnitude of the effort (23 IWMDs to be established over five directorates), as compared to the previous bridging (pilot) activity, required significantly more field assistance to the five target directorates. This need was addressed through the hiring of two senior Regional Advisors and the establishment of two Project Regional Offices within MWRI premises.

The staffing of IWMDs faced specific issues such as staff redundancy, and shortage or temporary status of MWRI engineers (in Upper Egypt). The first issue was addressed by supporting the redefinition of roles and responsibilities of IWMD staff and expanding the responsibilities of IWMDs. The second issue was tackled by lobbying the MWRI to reassign engineers, hire permanent ones, or empower technicians.

IWMDs are responsible for more tasks than the previous irrigation districts. Consequently their needs in terms of budget, facilities, and resources are greater. The Project is collaborating with the MWRI to identify those needs and address them.

Task 2: Formation of Branch Canal Water Users' Associations

The effort for establishing BCWUAs over five directorates (15% of Egypt's irrigated area) is significant, as compared to the previous bridging and pilot activity. In order to address this, training courses were synthesized and simplified.

The Year 1 BCWUA formation process was quite successful. Additional attention should be given to:

- Quality of the process as well as actual achievements.
- Best use of resources (multiple training events, several milestones).
- Decentralization of process (less use of CD-IAS) and empowerment of field staff (IWMD managers and their staff).

The process for Year 1 was based on previously successful, but pilot BCWUA formation activities. Large-scale replication requires decentralization and cost-efficient implementation while ensuring sustainability. Based on lessons learned in Year 1 MWRI has agreed to give IWMD managers the lead role in BCWUA formation and the BCWUA formation process has been streamlined.

Task 3: Equitable Allocation of Water Resources

Most of the water management activities could only be initiated after computers and water monitoring equipment had been procured and delivered to newly established IWMDs. This was established in record time, since more than 90% of the commodities identified in the project procurement plan were procured and distributed during Year 1.

Task 4: Improved Maintenance and Upgrading of Water Management Equipment

The Key Findings were as follows:

Access & Improved Repair/Maintenance of Irrigation Equipment

- Access to mechanics to repair pumps is not a major issue for farmers.
- Farmers do complain about the quality and cost of repair, but attribute this to poor quality spare parts rather than the capability or training of mechanics.

Business Management Skills and Training

- BCWUA board members do not perceive a need for basic business training.
- If BCWUA board members do not have computer skills, they report relying on other community members with access to a computer.

Capability of Technical Schools to Provide Training

- Technical schools were found to be in serious need of reform.
- Some industrial technical schools do offer hands-on mechanical training with diesel engines, but no training focused specifically on irrigation pumps.
- Commercial technical schools do not offer any computer, accounting, or business management programs on a part-time basis appropriate for adult education.

The task was successfully completed, however in retrospect it would have been more efficient and could have been delivered in a timely manner as per the Year One workplan, if undertaken by a consultant specifically assigned only to this task.

Task 5: Environmental Services for Improving Water Quality Management

Conducting a household survey of the pilot area was extremely useful in identifying potential problems and issues. It clearly showed that the initial focus of LIFE IWRM on solid waste management was being addressed through a local garbage collection provider. It also showed that stakeholders were willing to pay for environmental quality improvement services.

Communication issues between USAID, LIFE IWRM, MWRI, and the stakeholders showed the importance of having a resident task manager as part of the TA team. This was solved by appointing Dr. Wadie Fahim Mankarious (IRG), STTA Technical Advisor, as the Task Leader for the task.

The use of existing organizations such as CDA, BCWUAs, and local council representatives to help form a stakeholder consortium was very successful. Working with these influential formal stakeholder groups resulted in a commitment by the community to purchase land themselves to implement the wastewater treatment pilot project.

The attempt to cooperate with other donors to provide support funds (Japanese Embassy) proved unsuccessful. This confirms pilot efforts should rely on Project funds to avoid over extending efforts and avoiding unnecessary delays.

Task 6: Improved Wastewater Reuse Practices

Although implementation was delayed at the request of EEAA pending the approval of the GOE Waste Water Reuse Code, the resulting cooperation and consultation process strengthen the participation and commitment of all parties.

The selection of Luxor as the demo area has proved to be an excellent choice because of the strong support provided by EEAA, MALR, Luxor Governor, and the Luxor Waste Water Treatment plant.

The use of primarily local consultants supported by expat consultants has also proved to be quite successful.

Task 7: Graduate Degree Training

There was some delay in getting the USA Visa for U.S Bound candidates. This demonstrates the need to start early in providing English Language courses to the candidates to pass TOEFL exams, and to take the Graduate Record Examination (GRE) if required.

Monitoring & Evaluation

M&E secondary data collection forms were designed by the project team. However, the project received the M&E data from the districts in a variety of formats via the two project regional offices. The M&E team had to spend extra time and effort to get the data in useable and consistent formats for analysis. M&E data collection by Districts should be fully integrated into the regular data collection and recording programs of the IWMDs. Data entry and reporting should be shifted from spreadsheet to database format wherever possible to regularize formats, provide output flexibility, and reduce the risk of inadvertent changes being made to stored data.

The base line farmer survey played a unique and irreplaceable role in the M&E process. There is currently no substitute for client satisfaction surveys in assessing IWMD performance and changes in performance. Subsequent annual survey rounds, consistent with the original survey, are essential for computing approved indicators and implementing the approved M&E plan. Surveys can be simplified based on the results of the first survey round, while remaining consistent with the original survey.

Dividing survey design and implementation among different external consultants creates problems in understanding the overall process, the intent of the survey questions, the intended approach to administering the questionnaire, and data procession and reporting needs. A single firm should be engaged to both design and implement the survey for round 2.

IWMDs can be excellent partners in carrying out a survey. Their involvement gives ownership of results, lower costs, and provides hands-on experience for staff. However, both managers and implementing staff require better orientation to the survey purpose and process, better training, and clearer guidelines to be most effective. A general impression during the training of the enumerators was that the IWMD trainees entered the training at a low level of pre-knowledge. Consequently, the duration of the training of two days was not enough. In this regard, a recommendation would be to either do an initial assessment of the trainees, or to have a longer training period.

Results of the Year 1 evaluation should be discussed with all Districts, together with their interpretations of the results generated. This will close the loop of data collection, analysis, interpretation, and use, and enhance ownership. It will also be a starting point for a performance benchmarking program which can outlive the LIFE project.

Training

The project decentralized and regionalized its training programs. Training was offered in each Governorate to minimize travel and accommodation expenses of trainers and trainees. Regional trainers and service providers were used to the maximum extent possible, instead of bringing trainers from Cairo or the US.

Trainees' evaluations of Life Integrated Water Resources Management training courses were consistently good. For example, trainees were very interested in the Computer Skills and Maintenance courses. These kinds of courses are very useful in their practical work, especially for the Engineers.

Women were very willing and eager to participate in the training, especially in Lower Egypt for the Basic Computer Skills & Maintenance courses.

Because of work load of MWRI staff during the irrigation season (June – August), it is best limit training during this period.

The On-the-Job Training program proved very successful. It allowed trainees to learn by doing and provided a mechanism for mobilizing IWMD staff to participate in achieving project objectives and targets.

The attendance of high level officials such as undersecretaries and general directors at opening and closing of training events and providing training certificates helped to stress the importance of the training and the commitment of MWRI to the objectives of the project and the training.

Procurement

Procurement of computers and office equipment locally and regionally instead of purchasing and shipping from the US saved time, money, and allowed for on-site maintenance by local suppliers.

To ensure proper specifications for water measurement equipment being fabricated locally, quality control procedures were supervised by MWRI Hydraulic Research Institute and Water Distribution Sector.

MWRI provided facilities (offices and furniture) and equipment (current meters) to the project and the IWMDs allowing cost saving to the Project.

Life IWRM with the help of USAID and MWRI has established streamlined US procurement procedures that permits supply and delivery of US purchased equipment within 30 days.

Cost Control

The project implemented a number of cost saving measures.

The Project has made extensive use of MWRI Integrated Water Management Unit, MWRI District staff, and local staff instead of expatriate and local sub-contractor STTA.

With the strong support of the MWRI Integrated Water Management Unit and H.E MWRI Minister, the contractor was able to establish offices within MWRI Ministry building in Cairo and on the MWRI premises in Zagazig and Qena. This has resulted in major savings in rent and travel, has allowed for considerable sharing of resources, including personnel, vehicles, furniture, and equipment, and has supported the accelerated completion of a number of activities.

The project decentralized and regionalized its training programs. These are being offered in each Governorate to minimize travel and accommodation expenses of trainers and trainees. Regional trainers and service providers have been used to the maximum extent possible, instead of bringing trainers from Cairo or the US.

Computers have been procured locally instead of from the US, and maintenance is being provided by local suppliers. The result was a tremendous cost and installation time savings.

Instead of procuring meters for measuring discharge flow from the US, an agreement was made with MWRI to provide 37 of these items from their inventory.

To reduce laboratory costs for water quality and soil sampling, special arrangements have been made with the MWRI Central Water Quality laboratory and the MALR soils lab.

Instead of purchasing vehicles, to reduce costs, the contractor is renting less expensive vehicles, in many cases on an as needed basis.

To reduce printing and distribution costs a website was established to post project reports.

Instead of hiring a full time Project Administrator or extending the time of the expat STTA project Administrator (Greg Olson), IRG successfully distributed admin /financial/ procurement responsibilities among current staff.