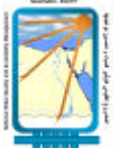




NAWQAM Project Information Bulletin



National Water Quality and Availability
Management

October 2001

BACKGROUND

The National Water Quality and Availability Management (NAWQAM) Project is jointly funded by the Government of Egypt through the Ministry of Water Resources and Irrigation (MWRI) and Canada through the Canadian International Development Agency (CIDA). Project implementation is based on the development partnership principle, where both the Egyptian Executing Agency (EEA) and the Canadian Executing Agency (CEA) pool their resources to accomplish the intended results.

NAWQAM is a seven-year project with an estimated budget of 20.5 million Canadian dollars and 27.5 million Egyptian pounds. During the first two years (1997-1999) of the Project, the inception report was prepared and approved by both partners. The first project Work Plan for the first and second year was completed and implemented. The Project is now in its third year (2001-02) of implementation.

GOAL

The NAWQAM goal is to develop an effective and coordinated national system for sustainable water resources management in Egypt. The developmental impacts to be generated are:

1. Improved national water resources management policies
2. Integrated management and sustainable use of all water resources.

The first impact is a reflection of the need for water resource management policies that are based on improved water quality/quantity data, better analyses of supply and demand variables and increased consultation among water users and distributors. The second impact statement captures the concern that stakeholders may have about changing water resource management practices in Egypt.

DESCRIPTION OF THE PROJECT

The project is composed of five Components, four of which relate to water quality and availability activities that are undertaken.

They are:

1. Component 1000, which is responsible for the National Water Quality Monitoring activities? The implementing agency is the Drainage Research Institute (DRI), NWRC.

2. Component 2000, which is responsible for the Water Availability Management activities. The implementing agency is the Planning Sector (PS), MWRI.
3. Component 3000, which is responsible for the Drainage Water Re-use and Pilot Schemes activities. The implementing agency is the Egyptian Public Authority for Drainage Projects (EPADP), MWRI, in collaboration with DRI.
4. Component 4000, which is responsible for the Information Communications Management. The implementing agency is the National Water Research Center (NWRC).
5. Component 5000, which is responsible for Project Management and Administration. The implementing agency is NWRC and PFRA.

The National Water Research Center (NWRC) of MWRI is the Egyptian Executing Agency for the project. The Prairie Farm Rehabilitation Administration (PFRA)-Agriculture and Agri-Food Canada is the Canadian Executing Agency.

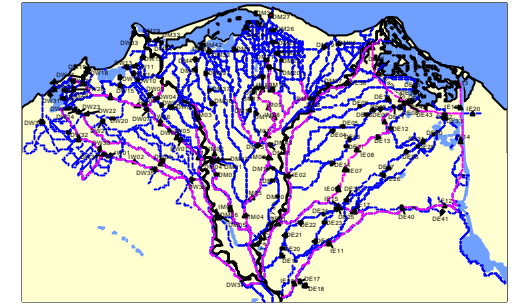


National Water Quality Monitoring

One of the objectives of this Component is to rationalize water quality monitoring activities into a national program that meets MWRI's objectives. The other objective is to strengthen NWRC's monitoring and institutional capacity in the field of water quality.



During the past two years, the Component has been collecting baseline data focusing on monitoring the quality of surface water at 290 locations distributed along the Nile River (conducted jointly with the Nile Research Institute), irrigation canals and drains (DRI) A groundwater-monitoring program already exists at the Research Institute for Ground Water and has provided additional data to the Component from 166 locations.



Monitoring Location in the Nile Delta

Other major elements include the development of strategies for water quality information management and dissemination. Two water quality studies were implemented in 2001. The first one used DRI data and produced a report on the impact of wastewater treatment plants on water quality in the Eastern Delta. The second study concerned the assessment of groundwater quality in the Nile Delta aquifer.



Water Availability Management

The Planning Sector (PS) of the MWRI is the lead agency in planning water resources in Egypt. Other PS activities include ministerial policy formulation, evaluation and analysis, which are also part of the NAWQAM Project.



The PS applies and utilizes mathematical models and techniques to forecast water demand and supply. The major focus of this Component is to first develop a database for MWRI that includes information/data required to forecast water demand and supply and secondly to modify/improve/test/use existing demand forecasting models. This will include other activities such as developing a functioning mechanism for consultation, coordination and cooperation among stakeholders. One key element is stakeholders consultation to make sure that their input/feedback is considered and included in the database

development and model testing. The database has now been designed and is being reviewed. The next step will be to populate the database and test the appropriate demand forecasting models.



Drainage Water Reuse and Pilot Schemes

The Egyptian Public Authority for Drainage Projects (EPADP) and DRI are jointly responsible for this Component. With the increasing pressure on land and agricultural production, Egypt has embarked on the reuse of drainage water to increase the amount of water available for irrigation. The activities of this Component are located in the northeastern part of the Nile delta along El Salam Canal.

The challenge is to eventually reclaim and irrigate 620,000 feddans of new land that is suffering from high soil salinity. A portion of the drainage water flowing into Lake Manzalla is added to the fresh water of El Salam Canal to increase the volume of water required to irrigate this area.



The Component's main objective is to determine how to reuse drainage water after mixing it with fresh water in an environmentally safe manner while taking into consideration human health issues. Three representative pilot areas were selected during the early stages of the project and an intensive environmental monitoring campaign was established on local farms. The monitoring program is designed to collect data and information that will assist farmers in reclaiming their land and to help understand the leaching process. Soil leaching practices and crop management strategies are being tested on farmers fields. The farmers actively participate in monthly meetings organized by the Component where Project engineers describe and explain the results of the collected data.

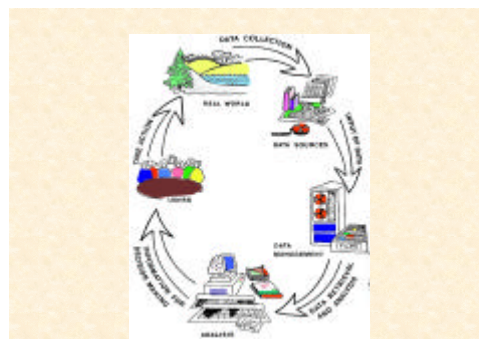
In collaboration with the United Nations Development Program (UNDP) and the Egyptian Environmental Affairs

Agency (EEAA), the component is participating in the assessment of using the wetlands technology for drainage and wastewater treatment. The pilot constructed wetland is located near the end of Bahr El Baqar drain, the most polluted drain flowing into Lake Manzalla. The NAWQAM project will contribute to the monitoring of the water quality before and after treatment and use the treated water in agriculture in a small pilot farm. The impact of the treated water on health, crop quality and crop productivity will be monitored as well.



Information and Communications Management

Based in NWRC Headquarters, this Component was created in (2001) and was designed to separate project management activities and responsibilities (now under Component 5000) from technical activities that are designated as crosscutting such as communication, collaboration, cooperation, project performance monitoring and gender equality. One of the objectives of this component is to establish a broad communication system referred to as a Wide Area Network (WAN) that will be capable of transferring information and data to and from the NWRC institutes and MWRI. This will enable rapid and precise data handling within MWRI and NWRC allowing the decision makers to respond more quickly to ministerial requests. Furthermore, a coordination mechanism for data sharing among the involved institutes is under development.



Another responsibility of this Component is to continuously monitor the planning and performance of project activities using a well-established procedure called Results-Based Management (RBM), a self-monitoring approach. The Project was originally designed using RBM with stakeholder participation and involvement to improve performance monitoring and to establish in-house project evaluation capabilities. The baseline data and information for all project

activities were collected initially to use later on as a benchmark from which progress can be measured.

The final responsibility of this Component is related to gender equality. Women are an important part of the professional staff at MWRI. In the field, women and children are the most vulnerable where human health becomes an issue. Efforts are being made to explain what is meant by gender equality and what can be done to improve the situation especially in the field. Workshops and field visits are conducted regularly to disseminate information and solicit feedback on project activities.



Project Management and Administration

This newly created component is responsible for managing the Canadian resources provided by CIDA through PFRA and the Egyptian resources provided by MWRI through NWRC. The PFRA-NAWQAM office is located in the NWRC Administration Building in El Kanatir, at the confluence of the Damietta and Rosetta Branches of the Nile River. The Egyptian Office is located at the NWRC Headquarters in Shobra, Cairo. The Canadian PFRA Office is located in Outlook, Saskatchewan, Canada. The activities include organizing training activities for all Components such as workshops, seminars, overseas academic development and conferences. The Component also provides ongoing financial support to the Components for their respective activities. The PFRA-NAWQAM office in Egypt also acts as a liaison office between Canada and Egypt for managing procurement and providing financial support.

The Project is managed by a number of committees: a Project Steering Committee (PSC), a Project Executive Committee (PEC) and a Project Management Group (PMG) Committee. These committees were created to have stakeholder participation, to review project performance and to approve the Work Plan annually.

For further information on the NAWQAM Project, please contact:

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