THE ARAB REPUBLIC OF EGYPT

National Organization for Potable Water and Sanitary Drainage NOPWASD

Governorate of Minia

THE REPUBLIC OF FINLAND

Ministry for Foreign Affairs, Department for International Development Cooperation

Water Supply and Sanitation Project in Minia Governorate

Project Document

Final Draft

15 September 1997

IRC International Water and Sanitation Centre

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ABREVIATIONS AND ACRONYMS

GIS	Geographic Information System
EGA	Economic General Authority
EHP	Environmental Health Project (USAID-supported technical Assistance)
Ezba	Part of a village
FIDIC	Federation Internationale des Ingenieurs Conseils
FINNIDA	Ministry for Foreign Affairs of Finland, Department for International Development Cooperation
HRD	Human Resources Development
HQ	Headquarters
LE	Egyptian Pound
LD II	Previous USAID supported project (Local Development)
LWC	Local Women Coordinator
Markaz	District of a Governorate, (pl. Markes)
MSW	Municipal Solid Waste
NOPWASD	National Organization for Potable Water and Sanitary Drainage
O & M	Operation and Maintenance
PHC	Primary Health Care Project
PVO	Private Voluntary Organisation
RMC	Regional Maintenance Unit
RMU	Reorganized Markaz Unit
USAID	Unites States Agency for International Development
WS	Water Supply
WSSP	Water Supply and Sanitation Project
WS & WW	Water Supply and Wastewater
WSS	Water Supply and Sanitation
WW	Wastewater

FINAL DRAFT

Rural Water Supply and Sanitation in al Minia Governorate: Support for broad based programming and decentralised service provision

1. SUMMARY

The urgency to move from a highly subsidised water sector to a self-sustained one has shifted the focus of development from investments to institution building and improved management. In the Governorate of Al Minia, basis for this development was laid when the Presidential Decree No. 281/1995 was issued on September 4, 1995, making possible the establishment of Economic General Authorities (EGA) for the water and wastewater sectors in seven governorate including Al Minia. These authorities will be responsible for water and wastewater projects and works in the governorate besides managing, operating and maintaining WS&WW systems. They will also be responsible for proposing regulations and tariffs for selling potable water and sanitation services so as to achieve balance between income and expenses. In Al Minia Governorate the EGA was founded 1 July 1996.

In Al Minia the EGA is in a transition from a centrally managed and governmentally financed authority to a self financing agency. This will require new skills and attitudes development. This is not easy as resistance to a change exists both inside and outside the organisation. The technical skills are not necessarily the bottleneck. Managerial and financial skills need attention more urgently. Simultaneously the new role requires new understanding of the users of the services. Difference between a beneficiary and a customer needs to be learned, new approaches in consumer relations developed. Efficient delivery of both water supply and wastewater treatment services has to be improved.

The technology choice, especially in wastewater collection and treatment, is rather conservative, applying conventional methods only. This situation, connected also with the need to become a self supporting organisation, requires careful planning, development and use of alternative technologies to rationalise the investments. Capacity to do so is low. Attitudes towards alternative options are negative too. In the field, however, some PVOs (NGOs) are mobilising people to construct latrines and to improve drainage. The role of the EGA and suitable methods have to be studied, improvements made, alternative technologies promoted and micro projects implemented.

Information management in the EGA is inherited from the previous arrangement of service delivery. It is insufficient to enable efficient and effective operation and management of the EGA. There is insufficient information on the assets, their age, location and condition. Consumer register is incomplete. Access to timely and reliable data is difficult. Difficulties in metering causes non physical losses of water. Billing needs improvement.

There are two main factors governing the selection of the project strategy:

1. The EGA is in a transition period in which the newly formed organisation has to transform from a governmental, budget financed agency to a government owned autonomous authority which has to cover its expenditure, and later also investments, by the income it can create through its activities.

2. The other main factor is the USAID funded intervention, which is expected to continue with a heavy investment scheme in the Governorate. This project has already in its earliest stages laid a foundation, and later a plan, how to develop the sector service delivery in Al Minia Governorate. The latest phase ended in 1996. Its end report indicates clarely that the continuation will have also a component on master plan making. This was also confimed

by the representatives of USAID in Cairo, and the consultant who was preparing the Action Plan for the continuation the same time this mission was in Al Minia.

The above two factors, and the missing capacities in information management combined with the lack of relevant data, made it necessary to adapt the originalc guidance of the TOR of the mission from formulation of a project document for a water supply and sanitation development plan prparation project, to plan an intervention which concentrates on building of capacity of the EGA to prepare a realistic, flexible master plan based on broad based planning principles and reliable data. This new approach includes also preparation of map material for proper GIS based inventory of assets and customer register, both vital for efficient management of the EGA.

The **overall objective of the project** is (derived from the Precidental Decree founding the EGAs in Egypt):

- **Improved public health through the sustainable use and management of services.**

The purpose of the project is:

- **To enhance the managerial capacity of EGA**
- **to increase short term net revenue from water supply services, and**
- **to increase the capacity of EGA to invest in environmental sanitation**

The project will contribute to the above purpose by three results:

1. Efficient delivery of water supply and wastewater services
2. Effective coverage of services
3. Improved information system

As the project will develop one "model Markaz" to lay foundation for demand based development of service delivery, its impact will be reflected in the whole operational area of Al Minia EGA.

The main risk for the development of the EGA in Al Minia is the risk of change in policy of the sector where the started decentralisation is reversed and the autonomy which has now been stipulated in the Presidential Decree does not come true. An other big risk is political interference in decision making either through direct injunction or indirect pressure via the board of Directors, which prevents decision making based on broad base planning and the objective of the EGA.

It is assumed that the USAID supported intervention will start/continue within one year. If it does not or if it will be delayed, the impact of this project will be limited to the Markaz where it will be implemented. The spin-off effect requires supporting activities at headquarters level, it is at Governorate level of the EGA in order to materialise. Even though it is planned to have the resident chief adviser located in the HQ to advise the management of the EGA, the activities are directed to developing a "model Markaz". This to avoid overlapping with the assumed USAID supported intervention. To change the scope would jeopardize the purpose of the project, partly as the volume is scaled to match requirements of one Markaz. Inadequate resources would easily lead to drifting, actions determined by crisis instead of planned programme.

The project is designed to work within the bearing capacity of the EGA. The emphasis is in institution and capacity building where the investments for physical improvements serve the learning process. Renovation and rehabilitation of the existing systems will increase their efficiency, increase income and decrease wastage. No new water supply systems will be constructed unless their viability is proven. The decisive factor will be the demand, not the need. The strategy to concentrate, in wastewater sub sector, in development of alternative sanitation options will postpone the need for heavy investments by the EGA and thus increase its capability to carry out its duties.

A steering committee will be nominated to guide the project. The Steering Committee will have the function of the forum for main strategy decisions. The Board of Directors of the EGA will approve the policies and plans. The project will have no separate organisation. The technical assistance will be rendered by posting advisers to the organisation of the EGA. There will be only one resident adviser who will be the chief adviser, advising the

chairman and the heads of departments of EGA/Minia and acting as the leader of the expatriates with the administrative task required by the Ministry for Foreign Affairs of Finland. The other advisers, called in for a specified task, will work mainly at Markaz and village levels as backstoppers to the staff of the EGA. There will be no seconded staff nominated for the whole project period. Support services will mainly be provided by the regular EGA staff.

The project period is two plus two years. During the scond year the project will be reviewed and the need and direction of it verified. During the last year of the project (year four) the need for an additional phase will be determined. The budget for the four years is FIM 22,159,500.

2. PRESENT SITUATION

2.1 Government and sectoral policies

As elsewhere in Egypt, the main policy of the water sector in Al Minia Governorate has, until recently, been the improvement of water services by investments in physical facilities, and service delivery through a centrally governed and budget funded system. Although efforts have been made, for example by the LD II project, supported by the USAID, to improve also the administration and O&M of water supply and wastewater systems, cost-effectiveness of the management and O&M of WS&WW systems is poor. This, together with inadequate cost recovery policy has lead to a need of high subsidies from the Government and from other sources.

The urgency to move from a highly subsidised water sector to a self-sustained one has shifted the focus of development from investments to institution building and improved management. In the Governorate of Al Minia, basis for this development was laid when the Presidential Decree No. 281/1995 was issued on September 4, 1995, making possible the establishment of Economic General Authorities (EGA) for the water and wastewater sectors in seven governorates, including Al Minia. These authorities will be responsible for water and wastewater projects and works in the governorate besides managing, operating and maintaining WS&WW systems, after a transition period, which has already started.. They will also be responsible for proposing regulations and tariffs for selling potable water and sanitation services so as to achieve balance between income and expenses. In Al Minia Governorate the EGA was founded 1. July 1996.

2.2 Other interventions

The United States Agency for International Development (USAID) has been involved in the development of the water sector in Al Minia Governorate since 1982 under the Provincial Cities Development Program. At first main effort was directed to construction and initial operation of a new water treatment plant in Al Minia City. Later, institutional development aspects gained attention and a consulting firm was engaged to conduct an Institutional Development Study and Assessment in 1995. The most recent completed intervention is a bridging project, Institutional Support Assistance for 1996, to assist the Governorate of Al Minia in the transition toward a situation in which an Economic General Authority would be in charge of water sector affairs as directed in the Presidential decree 281 from September, 1995. The final report of the bridging project was submitted to USAID by the consultants in August 1996. At present, a new six-year project is being launched.

The main proposals and recommendations of the bridging project include:

- a proposal for the organisation structure and job descriptions of key persons
- a water loss control program
- an action plan for improving the performance of the current billing and collection systems
- recommendations for the development of improved budgeting, accounting and financial modelling
- recommended strategic maintenance plan and actions for "quick and necessary " intervention in operation and maintenance
- action plan and implementation time schedule for the recommended actions.

A review of the current situation regarding the implementation of the above proposals and recommendations is presented below in Section 4.5.

At present, a new six-year project is being launched by USAID to implement the recommendations of the bridging project.

An other, but not a water supply and sanitation sector specific intervention, should be mentioned. The Egyptian Government has been restructured by forming a new Ministry to be in charge of rural development. Under it there is a new organisation: the Organisation of Reconstruction and Development of the Egyptian Villages. It aims to a nation wide action to create intersectoral development projects at village level. The nature of them will be to help people to organise themselves as production oriented (income creating) units (co-operatives?). They would be able to buy also infrastructural services and through internal subsidising lower their direct price to individuals inside the production unit. A high emphasis will be directed to the ownership aspect of the operations. There will be soft loan arrangements for investments, but not for recurrent costs.

2.3 Problems to be addressed

In Al Minia the EGA is in a transition from a centrally managed and governmentally financed authority to a self financing agency. This will require new skills and attitudes development. This is not easy as resistance to a change exists both inside and outside the organisation. The technical skills are not necessarily the bottleneck. Managerial and financial skills need attention more urgently. Simultaneously the new role requires new understanding of the users of the services. Difference between a beneficiary and a customer needs to be learned, new approaches in consumer relations developed. Efficient delivery of both water supply and wastewater treatment services has to be improved.

The technology choice, especially in wastewater collection and treatment, is rather conservative, applying conventional methods only. This situation, connected also with the need to become a self supporting organisation, requires careful planning, development and use of alternative technologies to rationalise the investments. Capacity to do so is low. Attitudes towards alternative options are negative too. In the field, however, some PVOs are mobilising people to construct latrines and to improve drainage. The role of the EGA and suitable methods have to be studied improvements made, alternative technologies promoted and micro projects implemented.

Information management in the EGA is inherited from the previous arrangement of service delivery. It is insufficient to enable efficient and effective operation and management of the EGA. There is insufficient information on the assets, their age, location and condition. Consumer register is incomplete. Access to timely and reliable data is difficult. Lack of properly planned and properly functioning metering causes non physical losses of water. Billing needs improvement. There is no conciousness about real O & M costs of the WS &WW facilities.

2.4 Stakeholders and beneficiaries

An immediate beneficiary of the Water Supply and Sanitation Project in Al Minia Governorate will be the Economic General Authority for Water Supply and Sanitary Drainage in the Al Minia Governorate. The transition from the present situation towards a self-sustained authority will be speeded up by day-to-day technical assistance by WSSP in the practical application of general management and administration procedures developed by others or by WSSP. Achieving of the self-sustained status will be facilitated by physical improvements to WS and WW facilities and by development of well organized units, effective working procedures, and skills required for cost-effective management of WS&WW systems. Implementation of these improvements and development measures will be limited to serve institution and capacity building of the EGA in one Markaz. Thus, the inhabitants of the selected Markaz will be the first ones to benefit from the improved services and reduced costs that are anticipated to be achieved by cost-effective management. Eventually, the population of the whole governorate will gain the same benefits.

3. PROJECT

3.1 Selection of the project strategy

The Governorate of Minia invited the Ministry of Foreign Affairs of Finland to formulate a project proposal first in 1996. The terms of reference for the mission, written based on the request of the at that time wish of the Al Minia Governorate, had the title: "TOR For the Preparation of Project Document for Water Supply and Sanitation Development Plan for the Minia Governorate". However, it became evident in the very beginning of the mission that the title had to intepreted as building of capacity for the mentioned task as the system of which the target organisation, the Economic General Authority for Water Supply and Sanitation (EGA) of Al Minia, will be developed was under preparation through and in the USAID supported programme since 1982. Further it turned out that collection of the necessary data for a realistic WSS development plan was not possible yet as the systematic collection and processing of it was not existing, skills to do them were also lacking, even knowledge of the O&M costs was unsubstantial. The participatory process, and discussions with the relevant authorities, in Egypt (Cairo and Al Minia) revealed also a profound wish of the Egyptian party for the formulation of the intervention to focus on institutional development of the EGA and capacity building of its staff at Markaz level and below.

There are two main factors governing the selection of the project strategy:

1. The EGA is in a transition period in which the newly formed organisation has to transform from a governmental, budget financed agency to a government owned autonomous authority which has to cover its expenditure, and later also investments, by the income it can create through its activities. The duties and rights of the EGA in turn are stipulated in the Presidential Decree which founded the EGAs in seven of the 26 Governorates in Egypt. The project will support the transition process.

2. The USAID funded intervention, which is expected to continue (with a heavy investment scheme) in the Governorate. The latest phase ended in 1996. Its end report indicates clarely that the continuation will have also a component on master plan making. This was also confimed by the representatives of USAID in Cairo, and the consultant who was preparing the Action Plan for the continuation the same time this mission was in Al Minia.

Precise, written information of that intervention is still to come, but the obtained information indicates that the work of the USAID supported project will aim at strengthening the EGA at its central level and at physical improvements of the service delivery by construction of facilities, starting from the biggest centres (urban type) in the Governorate. For this reason this project will have a rural orientation and concentration at Markaz and village levels.

The USAID supported project has already in its earliest stages (since 1982) laid a foundation, and later a plan, how to develop the sector service delivery in Al Minia Governorate. The latest phase ended in 1996. Its end report indicates clarely that the continuation will have also a component of master plan making (action plan). This was also confimed by the representatives of USAID in Cairo, and the consultant who was preparing the Action Plan for the continuation the same time this mission was in Al Minia.

The strategy of the project is to support the EGAs transition by providing advisory services to build-up capacity. This way the responsibility to develop the Ega will stay in the EGA itself. There shall be no separate project organisation. Achievement of the results will depend on the EGA management and staff. The responsibility of the expatriate advisers will be in the substance, the professional quality of the advise given. The disbursements of the External Support Agency are dependent on the rate of progress. The reason for this arrangement is two-fold: Not to exceed the absorption capacity of EGA and to render a possibility to a flexible, rotating planning process which is a learning process to its nature.

The improvements: institutional, capacity, and physical, shall follow the pattern of rapid small steps rather than a big leap. It is important that the process is really understood and internalised by the actors to make the development sustainable. In most of the cases the development will involve also a change in attitudes of many actors

simultaneously. This will be a learning process in which also setbacks will occur. The process will require time and patience of the actors, both the national and the expatriate.

The amount of resident expatriate advisers will be kept to its minimum (only one, a resident chief adviser) by using frequently visiting task specific advisers, who will render the actual sector specific advisory services to the EGA. The resident chief adviser will act as an adviser to the chairman and the directors of departments of the EGA and as a co-ordinator of the task specific advisers. The task specific advisers will advise the relevant EGA management and staff members, each adviser according to the task and activity they have come to support.

The activities of the project will be concentrated in one Markaz in view of enabling a balanced improvement of the functioning of the Markaz level unit od the EGA, and replicating the approach and methods in the remaining ones in Al Minia Governorate. The Markaz level unit can be concidered to be a water supply and wastewater utility, which is the active arm of the EGA. The ultimate choice of the Markaz will be done together by the parties in connection of the country agreement. However, The Marakez of Maghagha, Abu Kurkas and Dein Moas have tentatively been chosen as the most suitable ones (presented in priority order).

Actual benefits to health can be ensured only by proper water use and sanitation practices in homes. Both women and men will be involved in the planning and care of facilities as well as in educational activities through the community relations programme of the EGA in close co-operation with the relevant Markaz level authorities responsible for health education, and education in general.

3.2 Overall objectives

The Mission of the EGA, its corporate and business plans have not been formulated yet. However, there are discussions going on, how to fulfil the tasks stipulated in the Presidential Decree no. 281/1995. These discussions concern the problematic of selling services and simultaneously having a social function to also serve the poorest fraction of the society, which cannot pay for the services. The lack of the Mission statement makes it necessary to iterate the overall objective from the Decree and the discussions going on.

The objective of the EGA can be considered to have three dimensions:
- to protect public health;
- to manage EGA as a viable business undertaking; and,
- to safeguard the quality and quantity of water resources and to ensure continuous availability of vital and adequate market for services.

The above leads to, taking into consideration also the other interventions, the overall objective of the Project as to:

Improved public health through the sustainable use and management of services.

The overall objective refers to meeting the needs of the people more efficiently and effectively. By doing this the need for subventions, which do not meet rightfully their targets, will be diminished.

3.3 Project purpose

The purpose of the Project is:

To enhance the managerial capacity of EGA, to increase short term net revenue from water supply services, and to increase the capacity of EGA to invest in environmental sanitation.

As the project will develop one "model Markaz", it will lay foundation for demand based development of service delivery. Its impact will be reflected in the whole operational area of Al Minia EGA as the approach and methods can be duplicated in the remaining Markez of Al Minia Governorate.

The boundaries of the support activities are determined by the absorption capacity of the EGA and the other interventions (projects) which in parallel support the EGA.

3.4 Results (and corresponding indicators)

The Project will contribute to the above purpose by three results:

1. **Efficient delivery of water supply and wastewater services**
2. **Effective coverage of services**
3. **Improved information system (for one Markaz)**

The corresponding indicators are:

1.

- ***Consumer satisfaction on service level, water quality, and billing is good. Measure: Complaints responded within 2 days, interruptions in service less than 2/year, quality of water fulfil national norms, water meters maintained (10 %/year), meters read regularly and correctly.***
- ***Working ratio(operating costs/operating revenues) improves steadily.(excl. depreciation and interest)***
- ***Quality of wastewater released from the treatment plants in the target Markaz meet 80 % of the time the design values.***

2

- ***Alternative solutions for wastewater management studied and suitable coverage areas for each type of solution determined.***
- ***Sufficient number implemented to enable verification of application and suitability***

3

- ***Maps available from the main villages and towns of the target Markaz, and water supply and sanitation infrastructure properly mapped. Systematic up-dating procedure established and applied regularly. Measure: Maps available in digital form, in use and up-dated.***
- ***Consumer information and infrastructure (WS &WW) in GIS system. Measure: Computerised system created and in use, up-to-date and linked with other relevant information systems.***

3.5 Activities

3.5.1 Activities for Result 1: Efficient delivery of water supply and wastewater services

The EGA will work through the entire sequence of assessing the physical state of facilities, implementing the most cost effective repairs and cost saving measures as well as adapting procedure. In this process it will be supprted by advisers provided by the Project. The Chief Resident Adviser will be the co-ordinator for the advisory services and for employing design consultants and contractors to carry out physical improvements, implement cost saving measures as well as modify and document standard procedure.

The physical state of equipment and installations will be thoroughly audited in order to assess and costs the most needed repairs and rehabilitation. Simultaneously, EGA will review the standard working procedures for each of the systems concerned. At a later stage, the EGA will transfer all or most functions related to metering, billing and fee collection from the central level (in Minia) to the district branch. This will also include measures for community relations. Decentralising these responsibilities should enable more prompt response to customer complaints or queries.

Finally, the EGA will establish systematic procedures for human resource development (HRD) for that particular district branch.

Emphasis is not on the timely completion of any given task or cluster of activities. Emphasis is on the effectiveness of the learning process, i.e. following the successful completion of the activities in one Markaz, EGA staff should be capable of repeating the same steps as above in other Marakez.

3.5.2 Activities for Result 2: Effective coverage of services

When planning for effective coverage, the process should respond to the effective demand of people and also consider EGA's constraints in mobilizing capital investment, especially with regard to waste water treatment facilities. The approach is to work in conjunction with Private Voluntary Organisations (PVO) capable of collecting useful information at the household level and implementing low cost installations (also referred to as micro-projects). With this in mind, the EGA management shall prepare a broader framework for the development of services (a phased investment plan) and set relevant criteria.

To do so is novel in the Minia Governorate. Thus, before building capacity, the Chief Resident Advisor must work with EGA management to build up *consensus*. Why work with communities? Why to enter in a contractual partnership with PVOs ? (Whether it be during the implementation or for service delivery). The advisors should explain and estimate the financial merits of this, with particular reference to capacity deferral benefits (the benefits of postponing the cost of debt servicing new investments). These financial arguments can be used to advocate public participation and low cost technologies.

At the same time, EGA can start establishing the participatory planning and assessment process. A first step would be to assess the capacities of PVOs and define what kind of information does EGA need. Indicators should be set accordingly. Some of this planning work may be contracted to PVOs via simple contractual agreements. An information package for PVOs (working guidelines) can be developed. It should explain in a step wise manner the process and methods to assess needs, assess effective demand as well as the technical feasibility of possible options. The package should contain detailed guidelines on how to collect relevant indicators as well as conduct open ended questions and participatory exercises. Field staff working for PVOs may require training. The methods and tools must be extensively pre-tested.

As teams proceed with data collection, EGA can begin analyzing data according to the needs of it's the phased investment plan. Once completed, EGA can begin the appraisal and design of micro-projects waste water treatment. PVOs could even implement the micro-project with technical assistance from EGA.

This set of activities aims to achieve effective coverage of service by relying on communities to express their needs and preferences. As a whole, it constitutes a participatory planning and impact assessment process that will feed into the long term phased investment plan. The information should link data related to the health of people to the determinants of environmental health (i.e. access to basic of services and their performance as well as conditions in the living environment). The project should draw from similar experiences conducted in other parts of Egypt. Moreover, the organizations that could help EGA carry forth these activities (as subcontractors) must be introduced to and trained in the relevant methods of work. Again, the crux is to achieve this process such that EGA may repeat the process in another District whilst subcontracting the work to the same PVOs.

3.5.3 Activities for Result 3: Improved information system

Base maps on which physical features of WS&WW systems, as well as many other useful data,which can be presented conveniently and accurately are an important part of the information system of any water authority but are at present not available for the EGA in Al Minia. They are also a prerequisite for the successful implementation of several project activities, for example:

- design of rehabilitation of water distribution networks,
- control of unaccounted-for water,
- updating of customer registers and other data related to efficient revenue collection,
- collection of field data for the phased investment plan for wastewater services.

Preparation of base maps from already existing aerial photographs and collection and transfer of data on them in one Markaz are included in the project activities not only to facilitate the implementation of other activities but also to serve as a training process which would speed up similar development in other Marakez.

3.5.4 Activities table

The following table presents in a concise form the foreseen activities versus the results and the purpose of the Project. The list is by no means comprehensive or restrictive. It presents the main activities to guide the implementation, to form a base for the consultation process to be carried out between the advisers and the management and staff of the EGA.

Objective Improved public health through effective use and sustainable management of potable water supply and waste water treatment services.		
Purpose Support EGA to implement a strategic maintenance programme and develop a phased investment plan.		
Result 1 **Efficient Delivery of WS&WW Services**	Result 2 **Effective coverage of services**	Result 3 **Improved Information system (for one District)**
1.1 Audit the physical working condition of facilities and assess the need for repairs and rehabilitation	2.1 Prepare framework for strategy and set criteria for choice of technology/service level	3.1 Conduct needs assessment on mapping system.
1.2 Employ design consultants and contractors to implement recommended measures (ref. 1.1)	2.2 Provide Technical Assistance to advocate public participation and alternative technologies.	3.2 Prepare base maps from aerial photographs.
1.3 Assess standard working procedures for operation and maintenance of selected rehabilitated water supply facilities (ref. 1.2)	2.3 Establish a participatory planning/assessment process and develop a phased investment plan • Conduct site specific study of technical options for waste water systems (Technical / Social / Institutional); • verify and validate the information obtained from secondary data sources	3.3 Transfer information on GIS maps (physical features of network). • Collect data & survey network • Input into database.
1.4 Transfer to & develop metering, billing & collection in Markaz	2.4 Develop information package for community based assessment	3.4 Create database & establish procedures to update and access the database (validate): • 'As-built' drawings • Repair records
1.5 Identify and implement measures that are likely to effect in immediate savings: • water loss control (detect and repair leaks; complete the customer registry; ensure adequate metering; collect arrears). • optimise energy consumption levels	2.5 Train PVOs' field staff in community based assessment and test methods	3.5 Link the database (ref. 3.3) to customer register EGA and other databases in EGA and outside (Information Centre).
1.6 Demonstrate the use of maps for network maintenance (e.g. flushing; leak control and repair)	2.6 Demonstrate the use of maps for project design.	3.6 Train: • Surveyors to collect data • System operators to input data and access data
1.7 Establish procedures for prompt response to proposals, applications and complaints of customers	2.6 Design and prepare micro projects for wastewater treatment	3.7 Demonstrate use of maps in strategic planning.
1.8 Establish systematic HRD programme	2.7 Implement micro projects for wastewater treatment	

3.6 Risks and Assumptions

The main risk for the development of the EGA in Al Minia is the risk of change in policy of the sector where the started decentralisation is reversed and the autonomy which has now been stipulated in the Presidential Decree does not come true. An other big risk is political interference in decision making either through direct injunction or indirect pressure via the board of Directors, which prevents decision making based on broad base planning and the objective of the EGA.

The ability of the EGA to employ and maintain professionally qualified and well motivated management and staff is also a risk. For the moment it appears that the new organisation is attractive to the sector staff in Al Minia, as the expectations for a challenging job and increased remuneration/ wages/salaries are high. However, if there are no improvements in the working conditions or possibilities to put into practise the professional ambitions, the momentum will be lost.

It is assumed that the USAID supported intervention will start/continue within one year. If it does not or if it will be delayed, the impact of this Project will be limited to the Markaz where it will be implemented. The spin-off effect requires supporting activities at headquarters level, it is at Governorate level of the EGA, in order to materialise. Even though it is planned to have the Resident Chief Adviser located in the HQ to advise the management of the EGA, the activities are directed to developing a "model Markaz". This to avoid overlapping with the assumed USAID supported intervention. To change the scope would jeopardize the purpose of the project, partly as the volume is scaled to match requirements of one Markaz. Inadequate resources would easily lead to drifting, actions determined by crisis instead of a planned programme.

The willingness of the EGA in Al Minia to develop appeared during the project preparation to be good. It is assumed that this spirit will continue. However, the personal qualifications of the Resident Chief Adviser and his/her ability to communicate culture sensitively with the management of the EGA, and the higher level Governorate officials, and other parallel interventions, will be vital for the success of the Project

4. COMPATIBILITY AND SUSTAINABILITY

4.1 Compatibility with the strategic goals for Finnish development co-operation

Strategic goals and means of Finland's development co-operation have been defined in the document "Finland's Development Co-operation in the 1990s", by the Ministry for Foreign Affairs in 1993.

The principles to be followed in both multilateral and bilateral co-operation of Finland are:

i) a developing country is responsible for its own development;
ii) its citizens and the organisations and institutions operating there need to have the will to develop;
iii) development co-operation supports the creation of economically, environmentally, socially and administratively sustainable structures or functions;
iv) developing countries need to aim at reforming and adjusting their economic structures to the demands of sustainable development; and
v) Finland will increase the coherence of its policies vis-à-vis the developing countries and reconcile these with the goals of development co-operation.

Three substantive goals are stipulated:

i) promotion of economic development and reduction of poverty;
ii) balance between the environment, population and development; and
iii) consolidation of democracy and human rights.

The strategy chosen for this project will retain the responsibility of achievement of the results within the Egyptian partner. The expatriates will be in an advisory position with the responsibility on the professional quality of the activities. Hence the development responsibility is clearly on Egyptian side, in the EGA, its

management and staff. The role of the expatriates will be supportive, in line of the first principle stipulated above.

The initiation of this project came from the Minister of Housing and Public Utilities & New Communities as an official request, following the annual consultations between the Governments of Finland and Egypt. This request was later, 31 March 1997, endorsed by the letter of H.E. Governor of Al Minia Governorate Mansor Essawi, in his letter to the Embassy of Finland in Cairo.

During the whole preparation process the management and the staff of the EGA of Al Minia has actively participated in the work by providing the necessary background information, attending and working in the meetings and workshops. The Priorities and the targets have been set by the EGA of Al Minia. The preparation team has acted as an interpreter of the ideas from the EGA/Minia into the form of the logical framework. The above approach was selected to ensure coherence with the second principle.

One of the major reasons for selecting capacity building as the main purpose of the project is the transition in which the institutional set-up of water supply and sanitation service provision is in Al Minia Governorate. The Presidential Decree of September 1995 which is the basis for decentralising and commercialising the sector service delivery by establishing an autonomous organisation called Economic General Authority to seven governorates in Egypt, of which Al Minia is one, aims to a more sustainable service delivery. There is a strong trend towards a self supporting, self financing, system where the consumers (former beneficiaries) will have to carry the costs of the services directly by paying for them. The project aims to support this development. By supporting the process, the project is in line with the expressed national sector policy of Egypt.

Tackling also sanitation and to a certain extent health education the project will improve the environment of its target area and later, through establishing new, improved practices, that of the whole Al Minia Governorate.

There is a great disparity in Egypt between the urban and rural population. One aspect of it is the difference between the coverage of infrastructure services of the population. The memorandum of the president of the International Bank for Reconstruction and development and the International Finance Corporation to executive directors on a country assistance strategy of the World Bank Group for Arab Republic of Egypt, dated 5 May 1997, discusses this disparity by referring to the coverage of access to safe water supply and sanitation. A the urban population is almost completely served with safe water, only half of the rural population has access to it. The comparison with sanitation coverage is even more revealing. To every urban dweller without proper sanitation facilities there are twenty rural Egyptians.

The overall coverage of WS services in Al Minia Government is reported to be c.a. 80 %, well below the average in Egypt. The information of the division between the figure for the rural and the urban population is remarkable. Out of the approximately 350 villages in Al Minia Governorate only slightly more than half have access to safe (treated) water supply.

Concentrating, giving emphasis on the rural areas, which includes also the peri-urban areas with similar problems and possible solutions of service provision, the project aims in evening the disparity between the rural and the urban population. Selecting the Al Minia Governorate as the project area addresses the national level differences in accessibility to sector services. Both the above mentioned aspects are in line with the Finnish substantive goals of the development co-operation policy by contributing to greater distribution of well-being.

Strong input towards improvements in sanitation contributes for improvement of environment, both the constructed and the natural one. The dense village habitat requires immediate measures in sanitation. This is further strengthened by the health educational measures included into the project. The participatory approaches in the activities promote democracy by establishing new improved consumer oriented practices.

The gender aspects are addressed as one of the social variables. As the emphasis will be in consumer oriented approaches, in response to the demand, the social variables must be taken into consideration in every service provision action. This way the gender issue will become a natural and an essential part of every action, not neatly taken care of as one separate component and then forgotten from elsewhere.

4.2 Policy environment

Egypt is in a process of changing its policy for water supply and sanitation. The clearest indication of the change from centrally managed, and by the state provided service, system is the Presidential Decree No 281/ 1995. It decentralises the service provision in seven Governorates to them (four in the Delta and three in the Upper Egypt), orders formulation of an autonomous authority in each of them for the service provision, creates economic independence for the authorities (after a transition period, during which subsidies are continued, but decreased gradually), and requires gradual self financing - first O&M costs and later also investments. The assets will be transferred to the new authorities using their purchasing value without depreciation or inflation correction. Al Minia Governorate is one of the seven Governorates subject to this new arrangement. The Economic General Authority, as the new organisation is called, was founded in Al Minia first of July, 1996 (nomination of the Chairman). The role of NOPWASD is reduced to monitoring and planning.

An interesting change taking place through the above Decree is the change of the role of the users of services. They are no longer beneficiaries but now consumers and clients of the new EGA. The authority has to act as a commercial enterprise after a transition period. However, the extent of its role as a social service provider is still under debate, the water fee is determined by the National Government, and the wastewater fee is fixed to 35 % of the water fee.

If interpreted strictly, only piped systems will fall under the jurisdiction of the EGA. Point sources for water supply and on site sanitation will according to this interpretation fall outside. However it appears that a more open approach seems to be emerging, where point sources for water supply and on site sanitation can be included. Solid waste management is clearly outside. It remains as a responsibility of the local administration.

4.3 Economic and financial feasibility

The Project is designed to work within the bearing capacity of the EGA. The emphasis is in institution and capacity building where the investments for physical improvements serve the learning process. Renovation and rehabilitation of the existing systems will increase their efficiency, increase income and decrease wastage. No new water supply systems will be constructed unless their viability is proven. **The decisive factor will be the demand, not the need**. The strategy to concentrate in wastewater sub sector in development of alternative sanitation options will postpone the need for heavy investments by the EGA and thus increase its capability to carry out its duties.

There will be no need for the EGA to employ additional staff because of the Project. The by the Project caused additional costs are budgeted into the Project budget. They will cease together with the Project. The improved management information system will rationalise the decision making.

4.4 Economic and Financial Analysis

No meaningful economic or financial analysis of the Project is possible. Very little data is available at the present time and its reliability is questionable, especially at the District level and below. To conduct such an in-depth study was beyond the mandate of the Mission.

However economic effects are likely to be relatively small on a national scale given the size of the proposed intervention. Nevertheless, it does embrace economic principles that are sound and provide the means and ways to apply them. A case in point is the conservation of water. When users pay a reasonable volumetric charge for the water they consume, they are more likely to use it more sparingly (i.e. not use potable water for irrigating gardens). Conserving water is a high priority in the Nile Valley.

In the medium term the Project may contribute to alleviate poverty in the Minia Governorate. Without a similar intervention as the one proposed, it may be difficult for EGA to serve the poorer segment of

the population. Presently, law stipulates that Authorities cannot sell water from standpost (public taps). Because this is obviously a losing proposition for EGA they simply will not provide that level of service. On the other hand, house connections are too expensive for many people. They will continue to fetch water from contaminated sources, a chore that bears a high cost in time, energy and carries a high risk of exposure to water and sanitation related disease. Such policy measures concern Al Minia more than other Governorates because 40 % of the population are 'ultra poor'(national means is 20 %). Also, the number of people with access to water services is half that of the national average. To provide water via public taps at a minimal charge EGA may have to advocate policy or legislative changes or provide water to community based organisations via bulk meters. This Project will plan for the first steps in that direction.

The Project is financially sound because it does not entail investments in infrastructure for which the utility will have to bear the costs of operation and maintenance. In fact, the thrust of the Project is to improve the operating efficiency of existing installations (i.e. control, detection and repair of leaks in the network) and decrease non physical losses (e.g. collecting water charges from users).

However, we cannot neglect the recurring cost (in time and money) of operating an information system, conducting training, generating GIS maps, maintaining and using a computer network. In principle it will enable existing staff to do more work or enable them to make informed and effective decisions that, given a growth scenario, might not be possible otherwise. But it will not save on costs. Therefore it is important that during implementation the Project does not 'over-equip' (not to say overburden) EGA with management tools that they cannot use but will incur costs to maintain.

Likewise, the EGA management and their technical assistants could examine three particular issues:

1. The comparative cost rehabilitating and upgrading compact water treatment units relative to replacing them with new units upgraded to comparable performance and reliability.
2. The comparative cost of rehabilitating water distribution networks compared to replacement, especially where sewerage is soon to be installed.
3. The benefits (in terms of diminished debt servicing) of deferring the construction of capital intensive schemes by encouraging community based organisation to provide services using low cost technologies that are culturally and technically appropriate.

To estimate the amount of financial savings due to more efficient operation is difficult because reliable data is not available. In fact the intervention will not focus strictly on operation and maintenance of existing facilities. The project is designed as a leaning process in a single district before replicating the most promising approach throughout the Governorate. It is reasonable to expect that such activities cost significantly more and might not justify the cost saved in a single district. However, if the process is properly embedded within the EGA and its staff have internalised new working methods, then the benefits will go on for years to come and replicated in other districts.

4.5 Institutional capacity

Since the Presidential Decree 281/1995, considerable progress has been made in institutional development with assistance from the USAID-funded bridging project. According to information received from the chairman of EGA and abstracting from the final report of the Institutional Support Assistance for 1996 (bridging project), the main achievements are as reviewed below:

Organisation and corporate planning

- Chairman and the members of the Board of Directors have been nominated
- organisational structure of EGA and job descriptions for every position have been approved
- transfer of 4,297 employees from Local Units and the Housing Department is almost completed
- a committee in Al Minia and nine sub-committees in the districts (Marakez) have been established by a decision of the Minister of Finance to collect data on physical and non-physical (transferred) assets
- realistic estimates of O&M costs have been made; the recurrent costs in the fiscal years 1996/97 and 1997/98 were 4,952,000 and 9,400,000 EGP, respectively

Water loss control:

- water loss control assessments have been made in Al Minia City, Samalut Town and Talla Village
- outline of a comprehensive Water Loss Management program has been presented
- a first priority program consisting of installation and repair of meters especially to big consumers and restriction of use for irrigation has been implemented and a 5 -10% decrease in water losses achieved.

Billing and collection:

- survey of existing situation has been made
- data is being collected using a questionnaire distributed to customers in the whole Governorate to improve customer records; the input of data is expected to be completed by the end of August 1997.
- an immediate action plan for billing and collections has been prepared and its implementation started

Budgeting and finance

- the existing financial systems have been overviewed
- a preliminary Chart of Accounts has been developed
- a financial modelling system capable of a five year forecast has been developed
- preliminary budgeting systems have been developed and budget for 1996/7 planned
- a new law, 128/97, has been issued for fixing the EGA balance.

Operations and maintenance

- the existing maintenance systems have been analysed in regard to organisation, staffing and facilities, as well as supplies and inventory control system
- a strategic maintenance programme has been proposed
- a study of service level situation is going on including assessment of the technical condition of WS&WW systems and planning of some repairs and rehabilitations to be funded from the 1997/8 budget.

It is evident from the above that important institutional improvements have already been accomplished and overall plans are available for further development. Thus it can be concluded that the EGA of Al Minia Governorate has adequate institutional and management capacity for implementing the Water Supply and Sanitation Project and for drawing benefits from its results.

The skills mix of the personnel still reflects the previous organizational set-up. There is a need to brush up the technical skills, and to develop the attitudes and skills needed in practical running of the new "water utility". The most likely difficulties to be met is not lack of personnel but their attitudes, old practices and low salaries/wages.

The EGA is working in very many premises. There is no central office to accommodate all central/ Governorate level personnel nor in any Markaz a separate "water supply/wastewater office". This is a limiting factor as the communication is troublesome due to technical inadequacies (computer network, telephones, radios, transportation etc.).

4.6 Socio-cultural aspects

Clean water is traditionally respected in Egypt. However, the understanding of the true parameters is limited. Mostly the population in rural Al Minia judge the quality by taste. A taste which differs from traditional is rejected. The role of the Nile as the mother of life is very strong. So is also the belief on its water quality. To a large extent the same applies also to the canals, which get their water from the Nile. Clear groundwater from shallow wells is also considered to be wholesome. The present high level of pollution is not understood. If the water has the slightest taste of iron or manganese it is rejected. Deep groundwater tends to have this problem in the area.

Many traditions and deep rooted habits are connected with the water use. The village women often gather together on the canals to wash their dishes and laundry in the grossly polluted canal water. The main reason could be that often the canal is the nearest water source and it is easier to take the washing to the canal than to carry water home from a better but more distant water source and deal afterwards with the problem of wastewater disposal.

Another reason for choosing the canal is the chance to meet other women and talk together while doing the washing. The washing sessions can be for many women the most important social event of the day.

This tradition must, however, be discouraged because of the health risks which the women probably would not take if they would fully understand the seriousness of these risks. To encourage the women to shift to safe water sources, public taps must be available at a convenient distances from each household that has no house connections. The number of taps shall be adequate to avoid queuing. The loss of social advantages could partly be compensated by care and "ownership" of the public tap which could initiate also other joint activities. The Project should also plan and implement model washing places at safe water sources to provide a social function comparable with the washing sessions on the canals in addition to improved water hygiene. The problem of use of large quantities of unpaid-for water for washing must, however, be dealt with. One possibility is to utilize water from handpump wells provided that the quality (hardness, iron and manganese contents) is acceptable enough to lure the women away from the canals.

Changing water use habits will, most of all, require continuing co-operation between the Project and the village women through a community participation organization.

4.7 Participation and ownership

The basic concept of the Project, to retain the responsibility of achievement of the results in the hands of the employees and management of the EGA is based on new concept of participation. The Egyptian side is not considered as counterparts but as equal partners to achieve a common goal. To divide the responsibility as described in section 3.1 above, requires full participation and commitment from both partners, the national and the expatriate. The only way to achieve this is to agree upon the goals and to share the challenge. Hence the success is dependent on sense of ownership of the project on both sides.

4.8 Household roles and responsibilities of men and women

As in many other developing countries the women in Egypt have the most important role in bringing water to the house, when it does not come through a house connection, and in determining the water use habits of the whole family. Likewise the disposal of waste-water is the responsibility of women. It is linked with the responsibility of cleanliness in the house duty of the women.

The role of men in water supply and sanitation issues is directed to relations outside the family circle. The men tend to be rather dominant as their role is easily linked with the concept of honour of the family. However, the role of protector and provider is also applicable in the water supply and sanitation sector duties. The influence of the women inside the family to their husbands, and to a certain extent also to their fathers, is strong but invisible to outsiders.

4.9 Environment

The green valley of the Nile at Al Minia Governorate is very densely populated. It is a narrow strip between two deserts, the Eastern and the Western. The habitation is concentrated in villages, hamlets and small towns and a few cities. Some villages are addressed in the region as Faraonic villages. The

population in the villages and towns live very densely. Most of the villages do not have any drainage or sewerage.

Generally the groundwater level is close to the surface (0.5 - 10 meters). This will have an influence on the technology choice for sanitation. However, safe on site sanitation is possible in most places, provided proper technology is chosen.

The shallow groundwater which is tapped by ancient wells, or recent ones, is generally polluted by the users through seepage of wastewater and use of fertilizers and other agricultural chemicals. How deep the pollution has spread is not known but some indications point to a depth of 20 meters or a few metes more. True, comprehensive studies are not known to exist. Similarly the groundwater resources, including the deeper ones, are rather poorly known.

The unconfined top layers consist of sediments deposited by the Nile. Their grain size distribution is varying from loam to coarse gravel. Generally at least two aquifers with a semipervious layer confining the lower from the upper one can be identified. The quality of the lower aquifer water is often characterized by the amount of dissolved solids in it. The TDS is growing with the depth and distance from the Nile. The most common harmful components met are iron and manganese. Arsenic is not a problem nor fluoride.

The main water resource in the Al Minia Governorate is the Nile and the canal system through which a great part of its flow is led. The quality of the water in the river itself is mostly rather good. However, industry and agriculture along it load the water with chemicals which appear as heavy metals, nutrients, pesticides and herbicides. Due to the nature of the water course as a river or a canal, the quality has a tendency to change rapidly. In most cases the quality of water in the canals is much worse than in the Nile. This is due to the dense habitation next to them. Canals are used as dumping grounds, as sewers, as washing places, for bathing and as direct source of drinking water. The centuries old image of the Nile as the mother of life is so strong that efforts to change some harmful habits meet strong opposition.

The topography of the Nile valley is rather flat. The Eastern desert is separated from the valley by an escarpment which is tens of meters high, in some places even more than a hundred meter, it exposes the bedrock which is mostly limestone and chalk. The landscape west of the river rises more gently and the distance of the desert from the Nile is much greater, varying from few kilometres to more than twenty. Irrigation canals have spread the width of the arable area to the west. Some oasis-like areas are created this way. A part of the new agricultural land won from the desert depend on groundwater for their irrigation and household water.

It is imperative that the technical solutions of drainage, sewerage, on site sanitation and water abstraction methods comply with the natural conditions. A special cause for concern is the high groundwater level which in some places threatens to either be polluted by increased amount of wastewater or to raise so near to the surface that it will damage the mud-brick houses (capillarity) so typical of the area.

4.10 Appropriate technology

For the moment the EGA in Al Minia is using very traditional technology in both water supply and wastewater collection. Surface water is favoured over groundwater. Full chemical treatment consisting of primary settling, coagulation with aluminum sulphate, flocculation, sand filtration and chlorination is applied in package plants, the so called Compact Units. Often, however, the quality of produced water is not satisfactory due to poor condition of the Compact Units, and lack of proper operation and maintenance. In the biggest centres also taylor-made treatment plants exist, using the same kind of process. In dealing with wastewaters, the focus has been on piped sewerage systems. Only Al Minia city has an operating wastewater treatment system. Simpler on-site systems which would bring immediate environmental improvements at low cost have received little attention up to now.

One of the main purposes of the Project will be to develop appropriate methods and technologies for raising the level of WS and WW services. On the basis of experiences from practical applications of these methods and technologies the following conclusions are made:

- Rehabilitation of existing village WS systems should, at least for the time being, be favoured instead of starting implementation of big centralized systems. Less investments will be needed and thus the income requirements of EGA especially in the first years of its existence would be lower.
- Groundwater should be favoured as the source of raw water for the rehabilitated water supplies, whenever feasible. It is better protected against pollution, usually of higher initial quality and easier to treat than the polluted surface water of the canals. Groundwater is available at reasonable depths in most parts of the project area.
- Latrines and on-site wastewater treatment should be favoured instead of piped sewerage and centralized wastewater treatment, whenever feasible. They require lower investments, and can be implemented in a short time producing quick improvements of environmental hygiene. The users can to a great extent assume responsibility for their operation and maintenance.

5. IMPLEMENTATION

5.1 Organisation

A steering committee will be nominated to guide the Project. The Steering Committee will have the function of the forum for main strategy decisions. The committee shall have representation from

- Ministry for Foreign Affairs of Finland/Embassy of Finland
- NOPWASD
- Al Minia Governorate
- Target Markaz
- Ministry of Housing
- Ministry of Planning
- Ministry of Rural Development
- Ministry of Local Government

The Board of Directors of the EGA will approve the policies and plans.

The project will have no separate organisation. The technical assistance will be rendered by posting advisers to the organisation of the EGA. There will be only one Resident Adviser who will be the chief Adviser, advising the chairman and the heads of departments of EGA/Minia and acting as the leader of the expatriates with the administrative task required by the Ministry for Foreign Affairs of Finland. The other advisers, called in for a specified task, will work mainly at Markaz and village levels as backstoppers to the staff of the EGA. They will be working for the EGA organization and have different partners/ counterparts from the permanent EGA staff depending on the type of project activities being carried out at any time. Therefore there will be no seconded staff nominated for the whole project period. Support services will mainly be provided by the regular EGA staff. Compensation will be paid on performance basis to EGA staff for work specific to the Project only.

Such work would consist of such activities as attending meetings, writing reports, carrying out studies, etc. which are needed for the Project but do not necessarily belong to the responsibilities of EGA.

To carry out the project-specific work, some equipment and materials will be provided by the Project and remain under the control of the Resident Chief Adviser, in case of equipment and non-consumable materials, handed over to the EGA units either during or at the end of the Project period. The project-specific staff will include the expatriate advisers and short-term national advisers, a Project Administrator, a Project Secretary, interpreter(s), and drivers. The project-specific equipment and materials will consist of office materials, computers, scientific equipment, vehicles, etc.

5.2 Tentative timetable

The project period is two plus two years. At the end of the first stretch the need for reorientation will be evaluated. Based on the findings, either the plan presented below of a new one will be followed. During the fourth st year of the project the need for an additional phase will be determined. The activities of the project are presented as time bars in the following barchart. **Those for the second stretch are tentative only as they will be determinded on the basis of experiences during the first one.**

Table 2.

Task Name per result	I												II												III												IV											
	01	02	03	04	05	06	07	08	09	10	11	12	01	02	03	04	05	06	07	08	09	10	11	12	01	02	03	04	05	06	07	08	09	10	11	12	01	02	03	04	05	06	07	08	09	10	11	12
																									ACTIVITIES INDICATIVE ONLY																							
Result 1																																															
Audit facilities; assess repairs & rehabilitation																																															
Employ design consultants and contractors																																															
Assess & adapt standard working procedures																																															
Implement cost saving measures																																															
Transfer & develop metering, billing & collection in Markaz																																															
Implement measures for customer relations																																															
Establish systematic HRD procedures																																															
Result 2																																															
Prepare framework and set criteria																																															
Advocate public participation and low cost technologies																																															
Establish a participatory planning/assessment process																																															
Develop information package for community based assess.																																															
Train PVOs field staff & testing methods																																															
Analyse data and develop the phased investment plan																																															
Design & preperation of micro-projects																																															
Implement micro-projects for waste water treatment																																															
Result 3																																															
Conduct needs assessment of mapping system																																															
Prepare base maps from aerial photographs																																															
Transfer information to base maps																																															
Create database & set up procedures to update & access																																															
Link the database to other sub-systems																																															
Training of surveyors and system operators																																															
Demonstrate use of information system																																															
Support activities																																															
Mobilisation																																															
Mid term review and evaluation																																															

6. BUDGET

Table 3. Direct component costs per result

	Result 1				Result 2				Result 3				TOTAL
Year:	1	2	3	4	1	2	3	4	1	2	3	4	
Direct component cost													
Long term expatriates	100	150	200	200	50	150	150	150	200	50	0	0	1,400
Short term consultants	250	350	400	250	250	500	500	250	300	400	250	0	3,700
Local consultants/PVOs	0	0	0	0	0	50	80	30	0	0	0	0	160
Additional costs for EGA staff	11	15	14	8	13	18	17	10	8	12	11	6	145
sub-total	361	515	614	458	313	718	747	440	508	462	261	6	5,405
Contract (remainning works)													
- Design	100	100			100	100			3,000				3,400
- Construction	400	600					1,500	1,500					4,000
Material, equipments	500	500			250				60	130	20		1,460
Training	200					200			100	100			600
sub-total	1,200	1,200	0	0	350	300	1,500	1,500	3,160	230	20	0	9,460
Total direct costs (FM)	1,561	1,715	614	458	663	1,018	2,247	1,940	3,668	692	281	6	14,865

Table 4. Expenditures per year.

	YEAR 1	YEAR 2	YEAR 3	YEAR 4	TOTAL
Direct component costs	5,892,696	3,425,490	3,142,647	2,404,167	**14,865,000**
Indirect component costs					
Coord., admin. & com. relations	230,000	230,000	230,000	230,000	920,000
Home office coordination	180,000	180,000	180,000	180,000	720,000
Travel, freights, housing	540,000	720,000	680,000	420,000	2,360,000
Logistics					
- Office equipement & furniture	55,000	10,000	10,000	10,000	85,000
- Office running costs	120,000	120,000	120,000	120,000	480,000
- Support staff	90,000	75,000	75,000	75,000	315,000
- Vehicules	400,000				400,000
-Monitoring and evaluation		200,000		200,000	400,000
sub-total	1,615,000	1,535,000	1,295,000	1,235,000	**5,680,000**
Contingencies 10%	750,770	496,049	443,765	363,917	**2,054,500**
TOTAL	8,258,466	5,236,539	4,881,412	3,783,083	**22,559,500**

Table 5. Contributions

Source of funding	Amount in FIM		Amount in LE		Amount in USD	
Years	1+2	3+4	1+2	3+4	1+2	3+4
Ministry for Foreign Affairs of Finland	**7.126.000**	**5.973.500**	4.391.898	3.681.848	1.295.545	1.086.091
Governorate of Al Minia	6.440.000	3.020.000	**3.969.385**	**1.861.418**	1.170.910	549.090
Total volume	13.566.000	8.993.500	8.361.283	5.543.266	2.466.455	1.635.181

Exhange rates used: USD1 = FIM 5.5
USD1 = LE 3.39

7. MONITORING

An annual workplan has to be made by the project in consultation with the EGA/Minia. It shall be submitted to the steering committee for acceptance before the end of the previous year (first one two months after commencement of the project).

The project will be monitored through four financial reports and two progress reports annually. The reports shall be submitted to the steering committee within one month after the monitoring period. The final report shall be submitted three months after the project period.

8. EVALUATION

A mid-term review shall be done at the end of the second project year and an evaluation carried out five months before the end of the project. The evaluation shall include also an assessment of need to continue the project with a new phase.

ANNEXES

Annex I: Terms of Reference

MINISTRY FOR FOREIGN AFFAIRS OF FINLAND 20.5.1997
Department for International Development Cooperation

TERMS OF REFERENCE
FOR THE PREPARATION OF PROJECT DOCUMENT FOR WATER SUPPLY AND SANITATION DEVELOPMENT PLAN FOR THE MINIA GOVERNORATE.

Background

In the annual consultations between the Governments of Egypt and Finland in 1990, water supply and sanitation was agreed to be one of the main sectors within the bilateral development co-operation. It was also agreed that a comprehensive sector study would be carried out. The Ministry for Foreign Affairs of Finland (the Ministry) assigned a team of Finnish specialists to carry out the study, and they submitted their study report in 1991. The team identified potential projects and formulated 21 project proposals, including "*Development of Measures in the WSS Sector in El Minya Governorate*".

The need for a strategic water supply and sanitation sector plan has been perceived in Egypt, and this proposal has been highly prioritised by the National Organisation for Potable Water and Sanitary Drainage (NOPWASD) in the annual consultations throughout the 1990s. The importance of such a plan has again been reconfirmed in a letter from the Minister of Housing and Public Utilities & New Communities in April 1996. According to that letter "*a more detailed analysis on the WWSS- sector development needs shall be included in the report for all rural and urban areas allover El- Minya*". Another project proposal, submitted to the Ministry by the Egyptian Association for Comprehensive Development (EACD) involves improvement of water supply and sanitation of 800 families in two villages on the East bank of the Nile in the City of Minia.

The Minia Governorate is located in Upper Egypt in the Nile Valley some 200-300 kilometres South of Cairo. The governorate covers an area of about 2,300 km^2 stretching far to the Western Desert The total population is estimated at 2.8 million in 1995. Based on an estimate of the Ministry of Local Administration, the coverage water supply services in the Minia Governorate is 83% (compared to, e.g. 93% in Beni Suef and 90% in Fayoum), and the coverage of sanitation in Minia 9% (10% in Beni Suef and 20% in Fayoum). Minia is considered one of the poorer areas in the country, and it has experienced social instability.

Minia is one of the three governorates supported by USAID. A water master plan (WMP) for the city of Minia was prepared with financial and technical support provided by USAID in 1982. This plan is already outdated, and USAID is interested to finance a new plan. USAID will particularly support the transfer of sector responsibilities to the newly established Economic General Authority (EGA) in Minia.

Based on discussions in the annual negotiations in Cairo in May 1996, the Ministry sent a mission to Egypt to review and assess the project proposals of NOPWASD and EACD among others. The mission recommended that the Ministry would continue with the project preparation by assigning another mission to prepare a draft project document for Water Supply and Sanitation Development Plan for the Minia Governorate.

Purpose of the Mission

The purpose of the mission is, in co-operation with the relevant Egyptian parties, to prepare a proposal for the Finnish intervention in water supply and sanitation development in the Minia Governorate. The team should draw experience from the Regional Water Supply and Sanitation Project in Beni Suef Governorate, supported by Finland, and take into account the past and on-going USAID supported activities in the Minia governorate in the field of water and wastewater services:

Basis of the Work

The draft project document shall be based on the on the priorities and needs set by NOPWASD, the relevant authorities (including EGA) within the governorate, and other potential stakeholders, such as community organisations and NGOs. The draft project document shall be consistent with national policies and srategies as well as with the strategic goals and policies of Finnish development co-operation. It shall take into account the relevant studies and documentation on the water supply and sanitation sector in the governorate.

The initial assumption is that the proposed intervention would be limited to the preparation of a sector development plan, without commitment to its implementation. The scope of the plan should cover socio-economic and institutional aspects, including a realistic assessment of demand (not only need) for water and sanitation services and preferred service levels, and an assessment of resources available for the implementation of the plan.

The project preparation shall follow the new project planning guidelines of the Ministry. .

Scope of Work

In order to achieve its objectives, the Mission shall cover but not necessary limit itself to the following tasks:

(i) review the relevant policies, strategies and plans concerning the water supply and sanitation sector development in the Minia governorate;
(ii) review the institutional documentation prepared in association with the USAID assisted, assess the progress in the establishment and development of EGA, and co-ordinate the scope of the proposed plan with USAID to avoid overlapping and inconsistency;
(iii) review and evaluate the proposal of EACD and assess the feasibility of parallel support to the proposed plan and to grassroot level activities with an NGO;
(iv) discuss with relevant central authorities, including the Ministry of Housing and Public Utilities & New Communities, NOPWASD, as well as the authorities of the Governorate and representatives of communities;
(v) assess the ownership of the stakeholders in regard to the implementation of the proposed plan and their roles and responsibilities;
(vi) assess the role of the proposed programme in relation to the ultimate objectives, such as full cost recovery of O&M and capital costs, and the capacity of EGA to respond to the increasing demand;
(vii) assess the potential to materialise the substantive goals of Finnish development co-operation;
(viii) assess the cost implications of and risks associated with the proposed intervention in relation to the financial self-sufficiency of the sector;
(ix) assess, whether it is appropriate to divide the proposed programme in phases, and what implications that would have; and
(x) assess the social and environmental impacts of the proposed programme and recommend necessary actions;

Composition of the Mission

The Mission shall comprise four consultants with the following responsibilities

Mr. Heikki Wihuri, Team Leader
Ms. Ulpu-Liisa Airaksinen, Institutional Development and Project Planning
Mr. Wafaa A. Amer, Particpatory Process and Gender, Arabic language
Mr. Mark Vecina, Social-economy and Financial Aspects

Timetable and Reporting

The field mission is scheduled to be carried out starting May 27th, 1997. The Mission shall submit its report in English as a hard copy and on a diskette (MS Word and Excel) to the Ministry within three weeks after the return from the Egypt. At the end of their mission to Egypt the the team will present their findings and ask the comments of the appropriate Egyptian authorities.

Mandate

The Mission will carry out its tasks in close co-operation with the Egyptian authorities and stakeholders. It is entitled to discuss with the relevant authorities any matters related to this assignment, but is not authorised to make any commitment on behalf of the Ministry for Foreign Affairs of Finland.

Heidi Pihlatie
Director

Annex II: Job description

Job Title: Resident Chief Adviser

Reports to: Chairman of the Board, EGA (substance), and
Ministry for Foreign Affairs of Finland (administration)

General description

Provide advise and managerial support to the Chairman and heads of departments

The Project aims to strengthen the capacity of the EGA to develop and update a development plan for the water supply and environmental sanitation sector. It is meant as a learning project, designed so that EGA is not only responsible for the success of this Project, but is ultimately responsible for their ability to replicate the approach and methods in other districts (Marakez) of Minia governorate.

The Project will focus on establishing:

- a broad based planning and impact evaluation process whereby people, users and non-users alike, have a say in the design and implementation of projects (schemes), some of which, when on-site sanitation or low cost technologies for waste water treatment are involved, could be carried out by private voluntary organisations.
- a geographic information systems capable of providing information on, among other things, the physical features of piped networks and socio-economic data, as well the whereabouts of other existing physical infrastructure.
- standard procedures for the operation and maintenance of water supply facilities, with particular emphasis on immediate cost saving measures related to the collection of user fees and leakage control in the pipe network.

The Project will provide technical assistance for implementation via the services of short term consultants. The Resident Chief Adviser will be their primary liaison and is responsible for coordinating their inputs in a manner conducive to the success of the project.

Duties and Responsibilities

1) To ensure that the Project furthers the corporate and business objectives of the Authority and advise the Chairman of EGA on the means of overcoming adverse variances from planned performance.

2) To advise the Chairman and heads of departments responsible for planning, operation and maintenance, and human resource development to:
   - specify a set of detailed indicators based on which the EGA will eventually monitor and evaluate the project;
   - define the detailed workplan for short term advisors to complete the achievements set out in the project document.

3) To ensure that the tasks assigned to short term advisers are completed in accordance to the specifications stipulated by the EGA and in a coherent sequence conducive to achieving the expected results and objectives.

4) To advise and provide support to assess the operation of potable water supply facilities and assist in contracting design consultants and contractors to repair, rehabilitate or upgrade existing facilities.

5) To advise and provide support to review operational costs and production data with a view to implementing immediate cost reduction measures, especially those related to the metering and billing

of consumers and the collection of fees, as well as the detection and repair of leaks in the distribution network.

6) To review existing operational and reporting procedures and help establish a standard procedures for operation and maintenance tailored to existing facilities, including a monitoring system that makes available the information required for effective decision making at the most appropriate organisational level.

7) To review existing manpower plans and help establish a comprehensive programme for 'on-the-job' training for technical staff (e.g. surveyors and operators).

8) To advise and provide support in establishing the components of a 'broad based' planning process that include:

- a community based planning and impact assessment programme that seeks to understand the needs of existing and potentials users of WS & WW services; creates a dialogue with community representatives informing them of low cost technologies for waste water treatment; collects other relevant information or validates statistics available from secondary sources;
- mechanism for the exchange of information between organisations involved in developing water supply and environmental sanitation services in the Governorate;
- a set of studies to identify low cost technology options and determine their suitability to local environmental conditions and the preference of people;
- measures to advocate the need to provide affordable service for which people are willing to pay and the benefits of deferring capital intensive investments by adopting appropriate and low cost technologies.

9) To advise and provide support in establishing a Geographic Information System linked to EGA's customer computerised registry and other databases that exist within the Minia Governorate.

10) To advise and provide support to establish and develop a phased investment plan for water supply and environmental sanitation in one district (yet to be selected) that draws on information provided by improved monitoring procedures (ref. 6), the 'broad based programming' (ref. 8a) and information generated by the Geographic Information System (ref. 9),

11) To fulfil the administrative duties required by the Ministry for Foreign Affairs of Finland.

Qualifications

- Higher academic dgree (Masters or eq.) in technology, commrece, economy, business management or law.
- 15 years of experience, preferably in water supply and sanitation utilities and/or water resources administration
- Proven communication skills
- Fluency in English language (written and oral , Arabic an asset
- Knowledge of Egyptian culture

Annex II: List of other documentation available

1. Water and Sanitation for Rural Minia, by: The Egyptian Association for Comprehensive Development (EACD). Developed by; Dr. Emad Adly Ghatas Yanni, EACD Environment Program Officer.

2. **Women, water and Sanitation: Community Participation, Rapporteur's Report.** Prepared by Hanan Sabea, September 1990. Social Research Center, American University in Cairo & International Development Research Center, Canada.

3. The Management **Component of The Kafr El Sheikh Water Supply Project, Egypt.** By J. E. Rose, Team Leader, Management component, KESCON J. V.

4. Small Scale Water Systems in Upper Egypt. By Magdi Zaki, Water Supply Officer, *UNICEF*.

5. **Memorandum of The President of The International Bank for Reconstruction and Development and The** International Finance Corporation to The Executive Directors on a Country Assistance Strategy of The World Bank Group for The Arab Republic of Egypt, May 1997.

6. **Country Economic Memorandum, Egypt: Issues in Sustaining Economic Growth, Main Report.** World Bank Resident Mission in Egypt, Middle East and North Africa Region, March 1997.

7. Ministry of Foreign Affairs of Finland, Department for International Development Cooperation. **Mission** Report of Review of Water-Related Project Proposals in The Arab Republic of Egypt, October 1996.

8. Country Economic Memorandum, Egypt: Issues in Sustaining Economic Growth, Summary Report. World Bank Resident Mission in Egypt, Middle East and North Africa Region, March 1997.

Annex III: Statistical information on Egypt

Table 1

Indicator	Minia	Urban	Lower Egypt	Upper Egypt	National Average
Life expectancy at birth (1992)	62.1	66.7	66	64	65.3
Adult litteracy (%)	33.4	68.2	46.7	59.5 / 28.8	64.4 / 35.4
Real GDP per capita (E*f*) (1992/3)	1435	2455	2045	1546	2010
Life expectancey index		0.95	0.683	0.650	0.672
GDP index	0.250	0.440	0.364	0.270	0.357
Human development index	0.428	0.607	0.528	0.461	0.524
Ultra poor persons (1000 pers.)	1158 / 986	2051	3709	5738 / 4424	11641 / 6792
percentage	40.4	19.6	16.3	25.1 / 34.8	21.0 / 23

Tables 2 a) and b). Level of coverage in Upper Egypte.

Percentage of households with access to services (1992)		
Type of settlement	**Piped water**	**Sanitation**
Urban	90.4	86.1
Rural	56.6	38.9

Thousands of persons without access to services (1992)		
Type of settlement	**Piped water**	**Sanitation**
Urban	578	835
Rural	5628	7909

Table 3: Trends in human development

Location	Life expectancy at birth		Infant mortality per 1000 live persons		Population with access to piped water	
	1976	**1991**	**1961**	**1991**	**1976**	**1986**
Minia	52.1	61.3	108	48.9	58.9	43.9
Urban governorates	57.6	65.8	147	31.7	92.3	96.7
Lower Egypt	55.6	65.2	93	31.1	69.2	69.7
Upper Egypt	53.0	63.2	102	44.1	60.4	55.2
National average	55.0	64.5	108	36.2	84.2 / 60.6	92 / 52.9

Table 4: Status of women

Location	Maternal mortality rate per 100000 (1992)
Minia	151
Urban governorates	233
Lower Egypt	132
Upper Egypt	217
National average	174

Annex IV: An account of the joint planning process to support EGA in its' institutional development

Introduction

The Governorate of Minia invited the Ministry of Foreign Affairs of Finland to formulate a project proposal. the terms of reference had an title "For the Preparation of Project Document for Water Supply and Sanitation Development Plan for the Minia governorate. However, it became evident in the very beginning of the mission that the title had to intepreted to building of capacity for the mentioned task as the system of which the target organisation, the Economic General Authority for Water Supply and Sanitation (EGA) of Al Minia, will be developed was under preparation through and in the USAID supported programme since 1982. Further it turned out that collection of the necessary data for a realistic WSS development plan was not possible yet as the systematic collection and processing of it was not existing, skills to do them were also lacking, even knowledge of the O&M costs was unsubstantial. The participatory process, and discussions with the relevant authorities, in Egypt (Cairo and Al Minia) revealed also a profound wish of the Egyptian party for the formulation of the intervention to focus on institutional development of the EGA and capacity building of its staff at Markaz level and below.

To this end, the team carried out its tasks in close co-operation with the Egyptian authorities, specifically with the management of EGA. This brief methodological note reports on the methods and results of the participatory planning process.

Consultation process

The exercises were carried out over the two week period the consultants were in Minia. The group (see list in annex) met for three hours every two or three days.
The joint planning process can be described as participatory because people were encouraged to come forth with their own ideas, anonymously if need be. Ideas were written on cards of different colour using felt markers. Posted on the walls, the cards later served as memory prompts and made it easy to refer back to previous work and how a body of structured ideas was emerging.
It was iterative to the extent that the work carried out by the consultants was feedback to EGA management on a regular basis in typed form and in Arabic.
The discussions themselves were sometimes as revealing as the actual outputs. They provided insight into the dynamics between individuals and the approach to their work.

Work plan

Throughout the course of the mission, work was divided in four steps as follows:

Preparation:	The Mission presented it's terms of reference to the Chairman of the EGA; A tentative work plan was presented to members of EGA management who were meant to participate in the joint planning process; The Mission and EGA department heads agreed on the results to be achieved during this joint formulation exercise.
Planning:	A series of work sessions were held to determine the project focus and design based on the priorities expressed by EGA management and the criteria for Finnish development assistance in the water and sanitation sector.
Feedback:	The Mission invited the Heads of departments in EGA to react on a preliminary ideas for the proposal.
Debriefing:	The Mission presented a draft version of the proposal to the Governor of Minia and the Chairman of the EGA.

Methods

The methods utilised by the facilitators were 'brainstorming', an adapted version of the 'SWOT' analysis and 'round table' discussions.

Brainstorming:	Each participants writes one idea on a single card in response to a specific question. All cards were posted and discussed. The group decides on suitable answers. These are kept whilst others are discarded if they do not properly address the problem at hand.

SWOT : In a modified version of the "Strength, Weakness, Opportunities and Threats" analysis, participants list the strengths and weaknesses of their organisation with a view to implementing a project idea (i.e. a set of desired achievements or products). Similarly, they were asked to list 'other available resources' (i.e. favourable factors in the environment of EGA) or 'other linked results' (i.e. other results or conditions that must exist for the project idea to be successful).

Round table : Participants are asked to answer open question or comment proposals presented to them. Discussions are open and informal, at times heated.

The planning process followed a step wise sequence and focused on the topics listed in table 1.

Table 1. Topics and methods used.

TOPICS	METHOD USED
1. Participants listed any number of desired achievements that they considered related to institutional development (project focus). Specific reference was made to the EGA's existing investment programme. Two project ideas that fit the project focus were selected.	Brainstorming
2. For each of the two projects, participants identified a set of specific results they felt were should be included in the project design.	Brainstorming
3. Each project idea was analysed with regard to EGA's ability to attaining the specified set of achievements.	SWOT analysis
4. In a separate exercise, participants were asked to list the criteria they feel are important to the proper functioning of an EGA, outlining in a sense the corporate and business objectives of their organisation.	Brainstorming
5. The Mission explained to heads of departments the set of criteria for projects to qualify for financing from the Finnish Government Chairman then explained how EGA policies and activities fit each of the criteria.	Presentation
6. Participants discuss a preliminary version of the planning framework. Comments and amendments are integrated in the proposal to they extent that they conform to Finnish financing policy.	Round table

Results

Hereafter follows the set of outputs produced during the analysis and planning exercises. The topics covered have been summarised and presented in section 3.2.

Outputs

TRAINING SYSTEM: EXPECTED RESULTS

1. Raising the capacity of employees in many fields
2. Getting new experiences people don't have
3. Exchanging experiences between all employees from different fields
4. Raising experiences and skills; training employees to use modern machines

Visiting other organisations for exchange of experiences	Collecting data more quickly and collecting other information related to management	Training employees in new methods for collecting data
Getting the highest capacity of employees that well trained, for getting needs filled and all other good impacts	Training component should include: • internal training: - raising capacity (new employees and updating skills) - transfer of skills (re-training) • external: - for specialised training	Improving ways for operation and maintenance
Training employees in the design of modern water and sanitation installations	Improving technical works by training employees to get skills and experiences from other in the same working field	Having that clever employee who can use machines carefully with few breakdowns and timely completion of tasks
		Training for computer use

INFORMATION SYSTEM: EXPECTED RESULTS

Selection criteria of villages or communities for introducing services and the possibility of having bill payments	A register of EGA employees with their position, starting date and time for retirement	5 year plan and general budget figures for 2017
Realistic projects designs	List of EGA assets, inventory of spare parts and other charges	Forecasts of expected income
Ranking priorities depending on the available budgets	Plan for replacement and upgrading	Billing and income accounts; gathering data about users
Technology selection and design for sanitation service	? Priority for wanted needs in potable water for villages and district	Surveys of water networks; locating pipes (and their quality) and valves in every street; system should be compatible or integrated with mapping system for telephone and electricity services as well as sanitation networks.
Having an internal network within EGA and contact with the world abroad through internet		

Information system

Strong points of EGA	Points for improvement
• Have good quality technical staff and management. • Has good experience in all field; and recognise we can still learn. • Create (*hire*) new staff to replace the present (in the future) • Have the property (*real estate*) for building an information centre. • Have the land to build (*the centre*) on. • Young professionals are ambitious and have good experience 'beside all facilities that will be introduced in future • Pilot project in Minia City: questionnaires, upgrading information, data entry for getting receipts.	• Computers are not enough (in numbers). • No suitable place for an information system. • The need for programmers. • Connecting all the departments to the Main Information Centre. • Have no specialised technicians (*to establish, operate and develop)* an information system
Other available resources	**Other linked results**
• Governorate's information Centre • Information centres from other EGAs in other Governorates	• The relationship between the information system and the training system *(training in use of information system and computers will be needed)*

Training systems

1. To raise the capacity of people to do their work well and quickly

Strong points of EGA	Points for improvement
• Training could be in the work location; Inside workshops in a simple meeting room. • Have existing training programme in potable water and sanitation (*services hired from existing centres*). • Has a meeting room for 20 persons in Minia. • Have training centre in Governorate. • Using the Governorate water stations for training. • Some people were well trained by the USAID project - - they can train other people. • Have good technicians who can be used for training others. • People with good work experience in a specialised field can be used can train others with less experience.	• No training centre with modern machines and other training instruments. • Demonstration models and training aids are not available • People are not aware of the importance of training • Incentive for training as a way to encourage trainees. • Do not presently use technical people in EGA as trainers
Other available resources	**Other linked results**
• Organising and Management department could help organise special training courses in the field of finance and management. •	• Definition of funds (budgeting) for establishing the system • Has a special department for training with a director who understands the reason and the goals of the training programme, also the time and schedules. • Preparation for training. • Have the suitable place for establishing a training programme. •

Objective Improved public health through effective use and sustainable management of potable water supply and waste water treatment services.		
Purpose Support EGA to implement a strategic maintenance programme and develop a phased investment plan.		
Result 1 **Efficient Delivery of WS&WW Services**	**Result 2** **Effective coverage of services**	**Result 3** **Improved Information system (for one District)**
1.1 Audit the physical working condition of facilities and assess the need for repairs and rehabilitation	2.1 Develop a phased investment plan • Establish a participatory planning and impact assessment process in collaboration with local Private Voluntary Organisations; • Conduct comparative study of technical options for waste water systems (Technical / Social / Institutional); • verify and validate the information obtained from secondary data sources.	3.1 Prepare base maps from aerial photographs.
1.2 Employ design consultants and contractors to implement recommended measures (ref. 1.1)		3.2 Transfer information on GIS maps (physical features of network). • Collect data & survey network • Input into database.
1.3 Establish standard working procedures for operation and maintenance of selected rehabilitated water supply facilities (ref. 1.2)		3.3 Establish procedures to update and access the database (include valid data): • 'As-built' drawings • Repair records
1.4 Identify and implement measures that are likely to effect in immediate savings: • water loss control (detect and repair leaks; complete the customer registry; ensure adequate metering; collect arrears). • optimise energy consumption levels	2.2 Provide Technical Assistance to advocate public participation and alternative technologies.	3.4 Link the database (ref. 3.2) to customer register.
1.5 Demonstrate the use of maps for network maintenance (e.g. flushing; leak control and repair)		3.5 Training of: • Surveyors to collect data • System operators to input data and access data
1.6 Establish procedures for prompt response to proposals, applications and complaints of customers		3.6 Provide Technical Assistance in the analysis & demonstrate use in strategy planning.

Issues raised

During the joint planning sessions, discussion centred on three aspects of institutional development. The participants discussed solutions to problems and constraints related to each of these aspects:

1) Enhancing the performance of people: Build consensus and strengthen capacity

- Though highly trained, heads of departments feel they have insufficient exposure (access to information) to 'state of the art' developments concerning the design of installations, nor enough information about project planning.
- EGA recently hired (transferred) its staff away from the public sector. Much of the staff does not appreciate the commercial imperatives that now govern the utility. They do not sufficiently understand that the timely completion of their tasks and the quality of their work is pivotal to ensuring that operations are cost efficient.
- Combining 'on-the-job' and classroom training to fully prepare staff for their newly assigned tasks or re-positioning people within EGA whose job becomes redundant or upgrading the skills of all staff. Current training services are available elsewhere but are expensive perhaps and the course content is not wholly applicable to the specific needs of EGA Minia. EGA has therefore expressed the need for a ***training centre.*** However, the EGA has not established its training department nor nominated the head of section. Other constraints include:
  - Lack of space. A single meeting room exists;
  - It has no teaching aids nor equipment, materials or instruments that can be used as demonstration units or materials;
  - EGA has highly qualified technicians but does not use them to provide on the training for others.
- In future, people will need training in the use of personal computers and network based applications.
- The Agency is in a transition period where achieving financial autonomy is the principal short term priority. Nevertheless, EGA management is aware of its corporate mission: the provision of potable water supply and waste water treatment services. Yet, it remains unclear in the mind of people what are the ways and means to reconcile EGA's "social (public) service" dimension and its business objective.

2) Organising the EGA: Being able to make informed decisions and forecasts

- To make a realistic strategic plan requires information concerning physical and non-physical water losses, age and value of assets, inventory of spare parts, salary charges and consumption levels of customers, to name a few examples. Yet, much of this information is presently inaccurate or not readily available.
- The repair of faulty water meters and improved procedures for billing customers are immediate ways to increase income and hence contribute to strengthening EGA's financial autonomy. Progress achieved in this respect with the support of USAID is noteworthy.
- Accurate maps of the distribution network will help implement a strategic maintenance programme (for example making timely repairs to the distribution network or replacing sections of aged pipe). The maps should be geo-referenced and the database should be compatible with similar systems used in the Minia Govenorate for mapping the telephone and electricity networks. EGA staff see an ***information centre*** as the solution to generate this kind of information.
- People can make timely decisions if the relevant information is available. The possibility to share and access information concerning system operations requires a monitoring system where information can be retrieved at the organisational level where people are expected to make a decision and take action. Participants feel that this warrants a network of personal computers within the EGA that connect the districts (branches) and divisions to the central office. Eventually, the EGA may opt to establish access to the Internet.

3) Developing working relations: to cooperate with local and national organisations

- Journalists, health specialists and politicians do not always understand issues concerning potable water supply and waste water treatment (e.g. the quality of

water, the selection of villages to be served, etc.). How can EGA help them to appreciate the situation in an objective way?

- People must be aware of the real cost of water and modify their consumption habits accordingly. For example, some customers use large quantities of potable water to irrigate gardens. Yet, the charge was a fraction of real consumption because meters were broken. Though the effective use of services is important, it may not warrant 'policing' the use of water (especially in the case of public taps). Raising the awareness of people may be more effective.
- The Governorate's 'Information Centre for Decision Making' may provide useful information about key social aspects required for long term planning or information about the whereabouts of other urban infrastructure (telephone, electricity, etc.). Also, other resource centres exist in other Governorates or in Cairo (i.e.. training centres).
- '***Public participation***' is seen as communities contributing land or possibly to part of the capital investment. The idea of developing a partnership with Local Authorities, Community Based Organisations or Private Voluntary Organisations is known but has not been developed. It is seen as one possible way to increase coverage and reduce costs. The possibility is, in the eyes of EGA management, a possibility worth exploring.

Participants' Names and Positions:

1- Engineer: Mohamed Fayez Taha
Manager of Design, Studies and Researches Department, EGA.

2- Engineer: Sedky Sadek
Manager of Sanitation Department, EGA.

3- Engineer: Wasfy Fayez Zaky
Manager of Design Department, EGA.

4- Accountant: Abd El-Salam Abd El-Hamid Othman
Manager of Finance & Management Affairs Department, EGA.

5- Mr. Abd El-Wahab Abd Allah
Manager of Personnel Department, EGA.

6- Engineer: Milad Boshra
Civil Projects Department, EGA.

7- Engineer: Mahmoud Abou Zeid Hussein
Manager of Water Department, EGA.

8- Engineer: Khalil
Sanitation Department, EGA.