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*Ammanah Hoogambou  
Oct '93*

**FAYOUM DRINKING WATER AND SANITATION PROJECT**

**CUSTOMER AND COMMUNITY SERVICES COMPONENT**

**824 EGFA93**

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**ANNEXES**

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## ACKNOWLEDGEMENTS

*Community participation, as it is often referred to, encompasses broad ideas like 'participation of the community' to achieve a development objective. In the 1980s the participation of the recipient community was recognised as a key factor for maintenance of drinking water and sanitation facilities. However, sustainability of water and waste water programmes requires more. Effective and optimal use of facilities in the long run require a wider information and involvement of customers, also in planning and implementation.*

*In Egypt the overriding tendency is still to see the customer as recipient of government planned facilities. While external projects act as catalyzers for community participation, experimenting with innovative approaches in other developing countries and Egypt show that successful community management models can be reached. It is indeed complex and time-consuming and documentation plays a major role in 'depicting the process of change'. External agents play an important role in this, either participating directly in a programme or through financial assistance, transfer of technology and provision of concepts of modern project management.*

*In developing this Project Memorandum for Consumer Services, as part of the Phase 2 activities of the Fayoum Drinking Water and Sanitation Project (1994-1996), experiences elsewhere and findings in the existing development literature have been taken into consideration. Discussions with the FADWS project team, with Mr. Mahmoud Massoud, general manager of Al Azah, and Dr. Hassaan Abdel Gawad, director Fayoum Sanitation Department, the two members of the Community Involvement Taskforce, Eng. Nadia Abd Al Wahab Sayyid and Eng. Afaf Mohamad Fiqri, and consultants, Dr. Ahmed Gaber of Chemonics Egypt and Dr. Soheir El Sherif of MEAG have contributed in a major way. I acknowledge the assistance obtained from various experts and agencies, notably Mr. Hussein Ezzel Din from ORDEV, the management of the Fayoum Health and Family Planning Project and Dr. Nabila Azmi Mena from CARE Fayoum. Finally I am indebted to the Netherlands Embassy in Cairo for its support to the project and especially to Mr. Carel Brands and Ms. Joke Buringa for their professional encouragement.*

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October 15, 1993*

## 1 EXECUTIVE SUMMARY AND BACKGROUND

- 1.1 Egypt has made great strides towards improving water and wastewater services for its people. Yet, in the whole of Egypt, still more than 35% of the people lack adequate water supply and only 30% of the people have access to a sewerage system.

65% have  
access  
nationwide

In rural Fayoum nearly 40% have access to private water supply, while 60% is dependent on public taps. Over half of the population uses contaminated canal water for washing and bathing. More than 50% of the rural population have no access to sanitation, 38% have on-site sanitation, while only 11% or less are connected to piped sewerage.<sup>1</sup> Service levels and quality in rural Fayoum are still very inadequate.

- 1.2 The long-term goal of the Fayoum Drinking Water and Sanitation Project (FADW-SP) is providing safe drinking water and sanitary facilities to the Fayoumi population in a cost-effective and sustainable way.

Conditions for sustainability are a water company with revised procedures and management, which is able to provide services of a constant high quality services to its customers. This will require the foundation of an independent public company.

A second condition is well-informed customers, who are aware of their obligations to pay in exchange of accountable services, and who take responsibility for proper care of the facilities. This will save the lifetime (service life) of the assets, reduce water losses and maintenance costs. The public must perceive the water company as an efficient institution capable of providing good service at reasonable cost.

- 1.3 The Masterplan of FADWSP, which is prepared in Phase 1, emphasizes as main priority in Phase 2 (1984 - 1985) to reorganize the Al Azab Water Works, to prepare the grounds for a merger of Al Azab with the Fayoum City Water Works and with the Fayoum Sanitation Department, - resulting in one organization responsible for water supply and wastewater in Fayoum Governorate -, and to prepare the grounds for turning the present Al Azab in a semi-autonomous public utility.

Secondly, it has selected a number of investment projects from the Masterplan for further preparation and implementation. The investments concern rehabilitation of production facilities, improvement and extension of the distribution network, public tap rehabilitation, and construction of two village sewerage systems as well as one modular sewerage system in a third village.

- 1.4 In Phase I Customers could only be involved in Project activities to a limited extent. But pilot activities at the village level laid the ground for a successful

<sup>1</sup> These figures are based on survey results in five villages and their 47 hamlets. See: FADWSP, Socio-economic aspects of drinking water and sanitation in Fayoum rural communities. Fayoum, December 1992.

design of a public taps overhaul programme, for which Al Azab takes responsibility. School sanitation was tested in Kalamshah. And an approach towards increasing hygiene awareness was tried out in the pilot villages of Tersa and Aboksah. Basic data on service coverage were collected in an extensive socio-economic survey in five Local Units (pilot villages), in each district one. The survey investigated amongst others people's present situation and needs concerning water and sanitation, their willingness to pay for improved water supply and wastewater services, and their preparedness to take responsibility for cleaning and minor repair of public taps.

- 1.5 The FADWS Project has invited the consultant to formulate an approach for comprehensive sanitary improvements at village level, to be executed in Phase 2 (starting early 1994). This is a new project component which aims at a better integration between water supply and sanitary improvements, solid waste disposal and hygiene education at community level (See Annex 1 for Terms of Reference). It is proposed to establish a new Unit, the Community and Customers Services Unit in the present Project to implement the project component. Since the Project cannot do this alone new partners are approached. It is planned to implement activities in cooperation with the Fayoum Rural Health and Family Planning Project (FARHFP), Health Department, ORDEV, CARE Fayoum and selected Local Units. Working relations have to be established.
- 1.6 The workplan, - which emphasizes customer involvement in public tap rehabilitation and on-site sanitation as well as accompanying environmental health activities, as a third FADWSP component -, is prepared for a duration of 2 years. Creation of a Customers Service Unit (CSU), as a follow up of the present small Community Involvement Task Force, is proposed, responsible for strategical coordination of the component. For the staffing and scope of CSU responsibilities two scenario's are proposed, each with a different budget.
- 1.7 A multi-donor mission of January 1993 on an Egyptian Core Environmental Program has recommended Fayoum Governorate as one of the three locations for pilot projects in forming new autonomous water and wastewater utilities. An institutional audit, to allow the new utility, the Ministry of Housing and Public Utilities, NOPWASD and other decisionmakers, to better understand the present situation and provide the background necessary for preparing a strategic plan is initiated by the FADWS Project.
- 1.8 The Project experience with village level activities in Phase 1 is presented in chapter 2. This experience leads to the formulation of objectives in chapter 3 and our approach to the implementation of activities in chapter 4. Chapter 5 deals with project component organisation, staffing and costs. The remaining chapters deal with models for financing community projects (6), the importance of monitoring (7) and partners in implementing the proposed activities (8). The last chapter draws attention to critical issues in project implementation.

## 2 SUMMARY OF VILLAGE LEVEL ACTIVITIES IN PHASE I

2.1 In Phase I a number of pilot activities have been undertaken at the village level: reconstruction of public taps and construction of school toilettes and a septic tank in Kalamshah; an intensive socio-economic study of five Local Units including the mothervillage and its hamlets in Kalamshah, Aboksah, Tersa, Desia and El Roda<sup>2</sup>; and a hygiene education pilot activity in Tersa and Aboksah. Various smaller supporting studies have been carried out.

2.2 Al Azab district maintenance centres have taken up the maintenance of public taps. Rehabilitated public taps are provided with a water meter, a sloping platform and a proper drain. Most public taps are in a bad condition, especially those in hamlets:

- none or a broken faucet	61%
- defect platform	88%
- no drain or gutter	79%
- muddy and dirty environment	86%

In Phase I a first batch of 30 public taps were rehabilitated in Itsa and sixty (60) more have been selected for rehabilitation: 15 in Fayoum district, 15 in Tamiya district and 30 in Senoures.

2.3 On-site sanitation activities remained limited to improvement of a school courtyard and construction of toilettes and an improved septic tank at an intermediate school in Kalamshah.

The Fayoum Sanitation Department has completed feasibility studies on village sewerage systems.

2.4 The socio-economic survey provides information on affordability and willingness to pay in support of the Revenue Improvement Programme. No exact figures on income are known. Neither do we know what is 'affordable' in objective terms. Although often an expenditure for water of 3% of income is taken as a guideline, it could as well be affordable to spend 2% or 5%, given the expenditure patterns in rural villages. Based on extrapolations it is estimated that people's annual income vary between LE 450 (Category D) and LE 2500 (category A).

The willingness-to-pay analysis demonstrates that half of the people in rural Fayoum, presently not having a house connection, do want to pay the full cost of water services. One-time costs for a connection amount to more than a monthly salary of a government employee (LE 200-LE 300), and people know this. The current water consumption tariffs by far don't cover production costs. A paying domestic connection in Fayoum Governorate pays in average LE 25 per year, while a large percentage of 42% don't know what they pay or are not billed.

Nearly 70% of the households are prepared to pay for a sewerage connection and services. One-time connection costs to a sewer are about LE 150. Besides this a

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<sup>2</sup> FADWS, Socio-Economic Aspects of Drinking Water and Sanitation in Fayoum Rural Communities: Results of a survey in five villages and attached hamlets. Fayoum, December 1992.

household has to invest in building an in-house latrine.

Nevertheless, this does not mean that people are prepared to pay a (higher) regular fee. As a recent World Bank sector study observes "the introduction of the new tariff policy will require a major adjustment of the Egyptian people's attitudes towards paying for water supply and sewerage services". It concludes by saying that rate increases must be phased gradually, that people must gain confidence in the efficiency of their water institutions, and that public relation campaigns will be necessary.<sup>3</sup>

- 2.5 A hygiene education pilot activity in two Local Units was carried out together with the Centre for Development Services, Cairo. Two female Al Azab engineers developed a one-day training module on water treatment, diseases related to use of wrong water or wrong use of safe water, water storage precautions and sanitary possibilities and hygiene, complete with a slides series and pictorial illustrations. One of them participated in the 8 weeks International Course on Low Cost Water Supply and Sanitation at the IHE in Delft, The Netherlands.
- 2.6 In Phase 2 two parallel activities are planned already: the support to development of a independent company of Al Azab ("privatisation") and design and implementation of infrastructural works in water supply and wastewater.
- In Phase 2 the following physical activities will be undertaken at village level:
1. Extension and overhaul of distribution network (indirect customer benefits):  
Budget LE 9.75 million.
  2. Rehabilitation of 240-300 PTs and small repairs to other PTs:  
Budget LE 600,000.
  3. Preparation of detailed designs, tenderdocuments and tenders for construction of sewerage systems in 2 villages and modular sewerage in 1 village.  
Budget LE 9.23 million.
  4. On-site sanitation activities, including assessment of scope for set up of local solid waste collection systems. Budget LE 1.86 million.
- 2.7 A detailed budget for on-site sanitation activities is provided under paragraph 4.7. However, successful implementation of the on-site sanitation programme, as well as the public taps programme, in consultation with customers, Local Units and other partners, requires EXTRA RESOURCES and technical assistance for the set up of customers service, as a third Project component.

Evenso, continuation of environmental health education will only be possible if technical assistance becomes available. The FAWDS Project aims at health education which is functionally related to water supply and sanitation. Therefore it should be complementary to physical construction activities. An immediate start can be made within the PT rehabilitation programme. Health education related to

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<sup>3</sup> World Bank, Arab Republic of Egypt: Water and Wastewater Sector Study. Washington, January 4, 1993, p. 47.

sanitation can only effectively organised in the course of the first year of Phase 2. The Monitoring Committee of the Project has rightly pointed at the importance of making hygiene education and solid waste activities part and parcel of sanitation activities.<sup>4</sup> There are three constraints however: functional hygiene education needs a ongoing programme of village level physical construction; in this there are several departments involved, with each of which relationships have to be established; and skilled manpower of Project counterparts is not only limited, but also needed for other tasks.

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<sup>4</sup> Dr. A. Gaber and Ir. H. Van Schaik, Monitoring Committee End of Mission 2 Report. February 1993, p. 13.

### 3 OBJECTIVES AND SCOPE IN PHASE 2

#### 3.1 The objectives of establishing a Customers Services Unit in the FADWS Project in Phase 2 are:

- to effectuate a positive impact of physical improvements on public health;
- to involve customers in upkeep and maintenance of public and private facilities resulting in more responsibility of users;
- to promote an efficient and proper use of facilities to enhance their lifetime;
- to increase people's awareness of importance of water supply and sewerage services and to enhance their cost-consciousness, also by increasing a positive perception of the public of the water and wastewater agencies in the Governorate of Fayoum. This is a precondition for their willingness to pay for adequate services.

These objectives fit within the wider development objectives for the sector of both the Netherlands and the Egyptian government.

#### 3.2 There is a growing recognition in Egypt that economic development, the health and welfare of its population are closely linked to the proper management of its natural resources and environment. A World Bank team prepared an Environmental Action Plan at the request of the Egyptian government<sup>5</sup>. It is equally well recognized that improvements in the quality of water and sanitation services alone will not be sufficient to guarantee better public health unless accompanied by parallel efforts for intensive environmental and sanitary education.

Justification for investment in *environmental education* is found in better educated people, a cleaner environment and improved public health.

#### 3.3 It has been the main objective of the Egyptian Government over the past two decades to extend service coverage quickly and much has been achieved. There is a wide agreement, however, that a rapid growth in service coverage has urgently to be accompanied by the creation of strong water supply and wastewater companies. To achieve this drastically improved generation of financial resources from customers of services through tariffs will be imperative. And this in its turn does not only require higher tariffs or a greater billing efficiency, but as well an understanding of the customers, whom we feel are in generally in the Fayoum able to pay for quality service.

Hence, we feel, that a project component, which at the one hand increases the customers' responsibility for upkeep of facilities, and at the other hand tries to make them cost-conscious, is, within the present Egyptian policy, a necessary activity to accompany the construction activities, as laid down in the investment plan for Phase 2.

#### 3.4. Customer services cover a wide range of activities, aiming at individual house-

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<sup>5</sup> Government of The Arab Republic of Egypt, Environmental Action Plan. Cairo, May 8, 1992.



holds, key persons in villages, Local Units and Markaz. Strengthening cooperation between agencies at village level however is impossible without first building relationships with relevant sectoral Departments in Fayoum Governorate. Their consent is crucial, before the Project can start any effective activities in a village.

As a general rule, the decision of the FADWS Project to invest in customer services in any particular village, must be conditioned by the consent of the relevant authorities and by criteria of technical and social feasibility of the activity.

One could also expect that for any payment for public services a legal decree might be required, which legitimates a tariff structure and fee collection. If such turns out to be the case implementation of such system requires a substantial amount of time.

#### 4 PROPOSED ACTIVITIES AND APPROACH

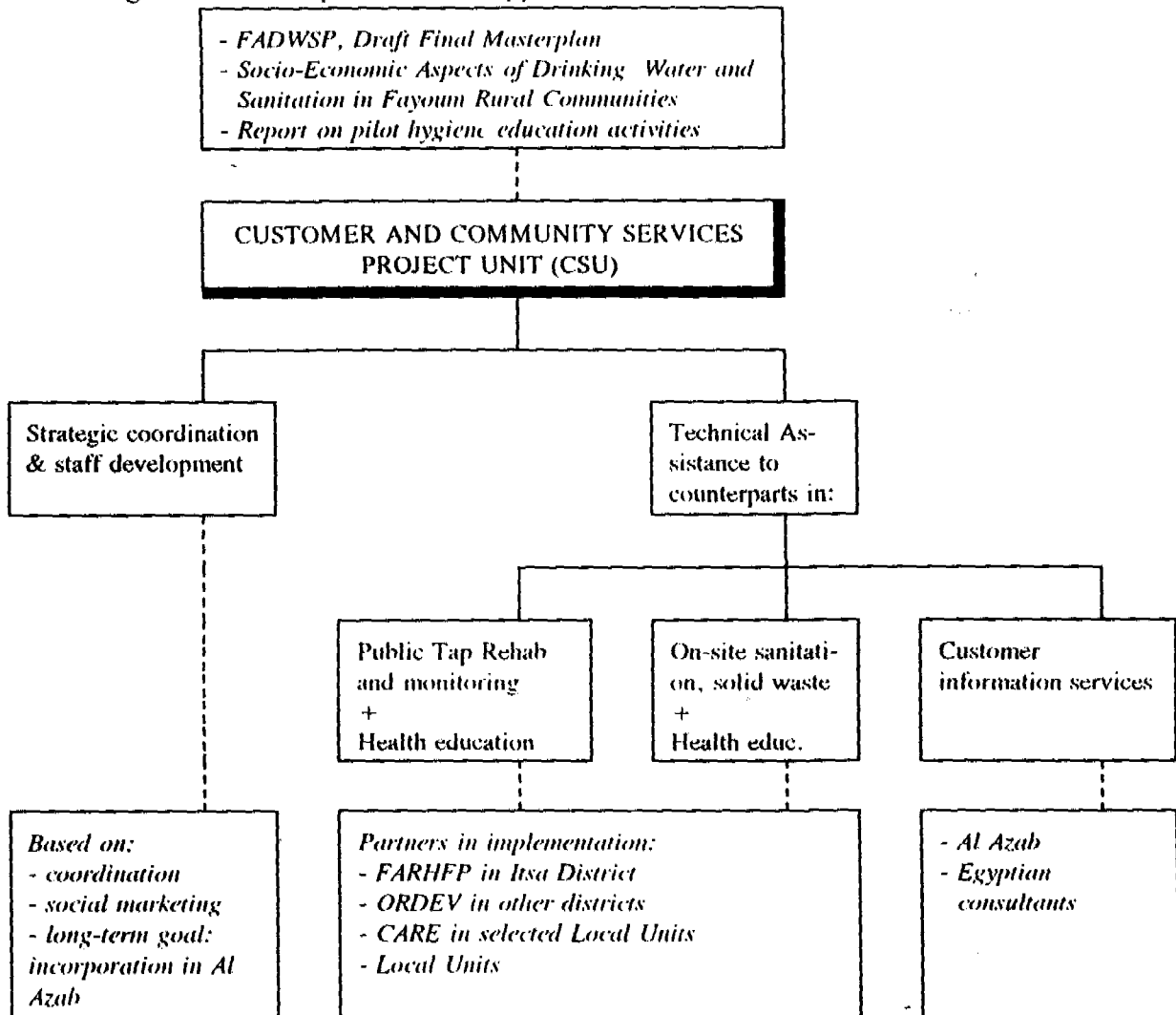
4.1 The selection of activities is based on experiences in Phase 1. Dependent on staffing of the Community Services Unit activities can be taken up more intensively. Because we are aware that this component has new elements we do not expect to be successful in all aspects.

We distinguish five types of village level activities:

- i. Public taps management
- ii. On-site sanitation
- iii. Local solid waste collection systems
- iv. Customer information services
- v. Environmental and sanitary health education

The implementation approach based on past experiences is presented in figure 4.1.

Figure 4.1 Implementation approach



#### 4.2 Public taps.

*Situation analysis:* for nearly 2/3 of rural people in Fayoum, or 60%, public taps (PTs) are the only drinking water source. Public taps (PTs) maintenance is partly the responsibility of the district maintenance centres of Al Azab and partly that of the users. In Phase 2 FADWSP will rehabilitate, - after a first batch of 90 PTs -, a second batch of 240-300 of the total of 1500 public taps and provide the reconstructed taps with platform and drain. The PTs selected must meet four criteria: (i) good water pressure in the main; (ii) having a large number of users; (iii) a bad present condition and (iv) be present in districts where PT maintenance teams are operational (Itsa and Senoures).

Water losses at PTs amount to one third of the present UFW (total of 42%). PT water actually consumed is even less than the losses, being only 12% of the total production of Al Azab. The average PT consumption is only 10 l/c/d nett.

*Specific objectives* of the PT overhaul and maintenance programme are reduction of water losses and improved hygiene services to the users. Accompanying goals are better maintenance logistics, metering of consumption and where possible revenue improvements.

The first goal, reduction of water losses, may result in substantial savings. Reduction of PT water losses with 50% already saves 7% or 2.05 mln m<sup>3</sup> (LE 307,500 at a tariff of LE 0.15/m<sup>3</sup>) per year for consumption.

The second goal is provision of a better and healthier service to the users. This can only be reached if the users take responsibility for cleaning and small repairs of the platform, keeping the tap environment clean and without stagnant water, and for warning Al Azab maintenance team in case of leakages. A durable solution is impossible without help of the users.

mit mehr  
elms →

*Community activities:* an environmental health training, see par. 4.6, will be developed with partners: the Fayoum Rural Health and Family Planning Project in Itsa and Care in some other Local Units. The Director-General of the Department of Health already has approved of cooperation with his department and the FARHFP project.

A metal sheet will instruct users on how to properly use and clean the tap.

Competition in cleanliness must be encouraged, by providing a prize for the users of the winning tap. The same could go for the best Al Azab maintenance teams of Al Azab, who show they gained most credibility.

For cost-recovery of PT maintenance a model is proposed in paragraph 6.3.<sup>6</sup> This includes job-creation.

<sup>6</sup> Development of the model has been facilitated by the study of Elisabetta Al-Karimy, Project memorandum on Public Taps Maintenance (Based on 2 months traineeship research), Fayoum, July 1993.

and FaDWS, Annex A11, "An Integrated Policy for Public Taps", Final Masterplan, Fayoum, September 1993.

#### 4.3 On-site sanitation.

*Situation analysis:* on-site sanitation is the only short-term option for the majority of the rural people in Fayoum, because of the high investment costs in sewerage systems. The situation of on-site sanitation in the whole of Fayoum is poor because of a number of constraints: (i) lack of versatility and capacity of the public emptying services at Markaz level, which don't have enough small vacuum trucks for emptying cess pits in densely built-up villages; (ii) lack of control on proper dumping of sludge by an increasing number of private desludgers (now 25%); (iii) more than 50% of the households (or 800,000 people) have no toilette (range is 30-75%); (iv) overflow of cess pits in areas with high groundwater and low soil infiltration capacity; (v) high ground water level creating filthy water logging; and (vi) untreated sewerage discharge into canals which are used for washing and bathing.

*Specific goals of on-site sanitation improvements are:* (i) increase of on-site sanitation; (ii) testing of pit designs which cause less smell, overflow and health risks than the present cess pits; preferably the pit is cheaper for the user and puts less load on wastewater treatment facilities (iii) increase of desludging capacities; (iv) safe wastewater disposal and (v) introduction of cost-recovery principles for public wastewater services.

*Activities:* to reduce overflow and desludging costs caused by the present cess pits a technical feasible pit design will be developed, based on the septic tank with a leaching pit principle, to be tested for 20 households. After testing of sound technical options these will be promoted to the public, so this can make a selection based on cost and space. A disadvantage which remains is that, even after primary treatment is applied, the leaching pit's wastewater will not infiltrate in areas with low soil permeability. The test will be performed with plastic and other containers. Again to reduce overflow and health risks for school children septic tanks for schools will be constructed, based on the design of the septic tank in Kalamshah.

It is advised to undertake improvement of school sanitation only if and where it can be integrated with health education activities.

If on-site sanitation increases, desludging constraints will grow. The Fayoum Sanitation Department expects that the first of 11 planned wastewater treatment plants will be operational in 1996/97. Meanwhile it seeks solutions by encouraging Local Units to reserve land for sludge stabilization ponds.

The Project can help to increase desludging capacity by encouraging private operators. In Kafr El-Sheikh privatisation of desludging is successfully tried. A tractor, cart plus tank and vacuum pump can be offered on a loan basis to young private operators, in the framework of Egyptian's loan programme of the Bank of Egypt to young school leavers to set up their own business. However, since it is not an attractive job, due to lack of status, the project should also provide a guarantee fund for salary adjustments during the first year.

Feasibility assessment of credit programme to private desludgers

- One private desludger takes a loan of LE 28,000 - (18,000: tractor, 10,000 for tank and pump)
- Assumptions: 8 desludgings per day at LE 10 each

Estimated minimum turnover/ month: 20 x 8 x LE 10 =	LE 1600
Running costs, incl. fuel:	LE 500
Loan installments, incl. 10% interest	LE 550
Left for salaries	LE 750

In 56 month or 4,6 years the operator will have repaid the loan. The lifetime of the equipment is estimated to be 5-10 years, depending on maintenance.

*The budget details* of the on-site sanitation activities are summarized in table 4.2 below. However, without extra technical assistance these activities cannot be implemented.

Institutionally the new Fayoum Sanitation Department (1991), which directly resorts under the governor, is responsible. This concentrates in Phase 2 on planning and supervising works for off-site waste water facilities, such as sewerage systems and effluent treatment plants, and on O&M of centralised treatment plants.

#### 4.4 Local solid waste collection systems.

*Situation analysis:* some Local Units have adopted the Law of Cleanliness ('kanun el nadifa').

The basic law for solid waste collection, treatment and disposal is Law no. 38 (1967), amended by Law 31 (1976). This law regulated collection and disposal of solid waste and supports the municipality, or Local Unit, to collect a fixed monthly fee from its citizens for collection and to enforce adherence to the collection system, at the discretion of the Governor.

The prerequisite for implementing this law is the village adherence to the 'khat el tanzim', a government regulation concerning a village zoning and streetplan. A village has to apply for a "khat el tanzim", but will be subsequently confronted with restrictions for future constructions and additional local costs, e.g. for the employment of street cleaners. Because these costs are borne by the Governorate, it refuses new applications due to lack of money.

Two richer Local Units, being Aboksah and Fidimeen, have introduced a local waste collection system.

*Activities:* in three (richer) villages, where the FADWSP implements a sewerage system, it may support the introduction of local solid waste collection by contribution to investment in containers.

*Budget costs:* 3 x LE 50,000 = LE 150,000

#### 4.5 Customer information services are at present marginally covered by Al Azab. The Markaz maintenance centres have most contacts with customers. Such services

should aim at explaining procedures, increase of willingness to pay and answering of customers complaints. House connection owners state a number of shortcomings with respect to their piped supply:

- low pressure: 46%
- frequent water cuts: 30%
- no water during the day: 22%

The Master Plan outlines a communication strategy which addresses various customers. The typical customer information task is envisaged as one of the six future main management tasks of the head office.

It does not seem advisable to incorporate this task in a future Finance and Administration Department of Al Azab. Maintaining public relations, both at the government and customer level, as well as developing communication strategies, answering customer complaints and marketing of connections is a professional task of a marketing manager, not subordinated to other portfolios. This marketing manager needs to rely on a management information system which is only in its conception stage.

Table 4.1 presents a possible communication approach for the Customers Services Unit.

Table 4.1 Forms of communicating to various target audiences

Target audience	Possible communication form									
	Programme document	Technical report	Progress report	Training module	Monitoring formats	Workshop report	Field notes	Brochure poster, signs	Memo	Staff meeting reports
Donors GON & GOE										
Advisory Committee										
Project management										
Partner agencies										
Local Units										
Community groups										
Customers/users										
Service providers (trainers, field staff, technicians)										
Interested (donor) organisations										
Media										

It will take some years before improvement in services becomes visible to all customers. Public relation and information activities cannot till the last pipe is laid. For Al Azab needs the cooperation of its customers to reach its goals. Therefore it is advised to start with a simple brochure. Such brochure, outlining Al Azab's maintenance and meter reading procedures, as well as the tariff

*will be because of illiteracy esp. among women*

structure and collection system might, while emphasizing meter protection and proper plumbing may facilitate the work of Al Azab maintenance teams, and helps to improve its image with the public.

#### 4.6 Environmental health education

The pilot project on hygiene education, involving imams, health staff, Local Unit staff, women's organisations etc. came to an end in July 1993, because it was planned as a pilot. The lesson learned is that educational activities in the future have to be clearly linked to construction programmes and institutional backing.

However, the training module on water which was developed is unique, because it is exclusively based on the situation in Fayoum. Important elements are:

- (i) relation between general practices in villages and possibilities for behavioural changes and health improvement;
- (ii) giving insight in most critical health hazards in Fayoum to private and public health;
- (iii) providing awareness of possible ways to improve sanitary practices.

WHO statistics show 90,000 annual recorded deaths linked to water-borne diseases. Unrecorded figures are probably several times higher and water-borne diseases most probably incapacitate millions of people in Egypt.

In discussions with the Fayoum Health and Family Planning Project (FAHFP) the willingness has been expressed to include in FAHFP health training environmental health issues. This Project aims at training 122 village Health Promoters in Itsa District in 1994/1995, each responsible for informing and training 400 families.

In a joint workshop between the staff of both projects, in early 1994, a detailed work programme will be elaborated.

With CARE Fayoum the Project agreed to cooperate in principle in some Local Units outside Itsa district, provided that CARE's envisaged environmental health programme will be approved by its management.

Environmental health training aims at increase of user involvement in cleaning and maintenance of their public taps. Typical environmental health messages, e.g. on avoiding water wastage, proper water storage and waste water disposal, and health risks of using canal water etc. will be combined in one communication strategy.

Actions in Phase 2:

- \* developing an integrated environmental health message for field staff;
- \* investigating, together with FARHFP, whether it is useful to produce a brochure in cooperation with the Department of Health.

#### 4.7 Criteria for including village level projects in the FADWS Project are the following:

- Taking physical progress of PT rehabilitation as a yardstick for educational activities. Progress depends amongst others on the progress of functioning of Al Azab PT maintenance teams (2 staff per District are responsible for PT maintenance, starting with Senoures and Itsa as first districts).

- The locations where Health Promoters, trained by FARHFP, are already working, so infrastructural works can be combined with users education.
- The villages covered by fieldstaff of other implementing partners, such as CARE or ORDEV.
- Development of sound alternatives for the present sanitary cess-pits.
- Willingness of people to pay. Not any of the Project services will be subsidized, except for technical assistance and training of users.
- The progress of a legal framework at Local Unit level: this is relevant for solid waste collection systems.

Counterpart staff of Al Azab and the Fayoum Sanitation Department will not be involved in village extension, since manpower development, development of procedures, billing and revenue collection, and strengthening of District maintenance centres etc. require all their attention.

Hence, village information and training will have to be developed with other partners. Project identification will be done with the relevant counterpart and the relevant implementing partner.

4.8 Capital investments in on-site sanitation and solid waste collection are summarized in table 4.2.

Table 4.2 Capital investments in on-site sanitation, desludging and solid waste

No.	Item / Activity	Quantity	Unit costs in LE	Total costs contribution	
				Netherlands	Egypt
1	School septic tanks	10	20,000	200,000	
2	Test improved hh. pits	20	5,000	100,000	
3	Promotion on-site pits			100,000	
4	Promotion of ponds for legal sludge dump	10	10,000		100,000
5	Loan fund for purchase of tractors + tanks	25	28,000	300,000	400,000
6	Salary guarantee fund first 12 months	25 private operators	3,600	60,000	30,000
7	Solid waste collection	3 L.U.	50,000	100,000	50,000
TOTAL CONTRIBUTIONS				860,000	580,000
TOTAL RESERVATION				860,000	1,000,000 leaves 420,000 to be used for housing of FSD



## 5 ORGANISATION AND STAFFING OF THE CUSTOMERS SERVICES UNIT

5.1 There are several options for creating a Customers Services Unit (CSU) for water, waste water, solid waste and environmental health. At the extremes the choice lies between doing nothing and creating a new institution under the Governor, e.g. linked to the Environment Affairs Agency, which means a new project. Midway lies the creation such Unit within the ongoing Project, to work through and with existing agencies. In that case the FADWS Project would need new partners partners. These partners are discussed in Chapter 8.

5.2 We propose the creation of the Customers Services Unit within FADWS Project to link any customer services effectively to physical progress. The positive and cooperative attitude of members of the Project Advisory Committee and other discussion partners leads us to believe that this is the most cost-effective and workable option.

It also in line with the set-up of a Danida supported community services unit, which has recently started in Aswan Governorate. One long-term expatriate adviser and two senior sociologists are staffing this unit.

5.3 Al Azab Water Works and the Fayoum Sanitation Department are the counterpart organisations for project implementation. The CSU will coordinate the activities of of other agencies. Close and regular contacts will kept with the FARHFP, ORDEV and CARE. The CSU will coordinate the inputs of the three agencies in the field of environmental health education and be the liaison with Al Azab and the Fayoum Sanitation Department.

The CSU will build on the work of the Wastewater Taskforce and the Community Involvement Taskforce. The latter consists of 2 female engineers responsible for socio-economic data collection, community activities with respect to public taps rehabilitation and organising the hygiene education pilot project.

We are fully aware that the effort of building partner relations in the Customer Services component must be reflected in the composition of the Advisory Committee of the Project.

5.3 We talk about new tasks and functions, not fulfilled by Al Azab, the Project or by any Governorate department. The first ones have to concentrate for the years to come on two other core activities: institutional strengthening and capacity building of Al Azab and physical implementation of works.

Fayoum Sanitation Department is still in its infant stage.

Hence, a CSU has to act like a spider in the web: building relationships and relying for for most executive functions on counterparts, sectoral departments, Local Units and other projects.

Therewith one should realise that given the fact that provision of drinking water in Fayoum Governorate is only possible by centralized piped water supply, decentralized community management is no option. This is may be an option for on-site sanitation, local collection of solid waste.

5.4 Below the staffing of the CSU is proposed.

Table 5.1 Staffing and cost estimate of the Customers Service Unit

No.	Position	Qualification	Person months	Unit Rate	Total amount	
					LE	Dfl.
1	Senior Dutch Programme Coordinator	Institutional and communications expert	21	f. 35,000		735,000
2	Senior Egyptian coordinator	Community development and social marketing expert	24	LE 7000	168,000	96,500
3	Bilateral Assistance Expert	Environmental health	24	P.M.		
4	Egyptian training expert	Training organisation and monitoring expert	24	LE 3000	72,000	41,500
5	Village organisers (2)		48	LE 400	19,200	11,000
6	Local short-term consultancies	Various: MIS, credit, staff training	6	LE 7000	42,000	24,000
8	Equipment & Transport					150,000
9	Fund for seminars, training and PR materials					142,000
<b>TOTAL</b>						<b>1,200,000</b>

N.B. The provision of Dfl. 150,000 in the budget for equipment and transport includes one car plus driver for the team as well some motorcycles, two extra computers and software.

The preferred CSU team includes one resident institutional expert, who is overall responsible for the execution of the component. She should long experience gained through projects and missions in the Arab world, preferably also in drinking water projects.

An alternative option is making an Egyptian senior community management expert the CSU coordinator, while a Dutch expert executes a review and support mission twice or more per year. This decreases the involvement of the Dutch senior expert to 4 months. In this option the budget amounts to Dfl. 605,000.

Job description of CSU coordinator:

Preparation of the plan of operations, developing monitoring formats for measuring project progress, establish relations at policy and working level with departments and agencies in Fayoum Governorate and advise on all forthcoming management issues.

She will further be responsible for integrated component management and communications and be the liaison with the sectorspecialist on Women and Development of the Netherlands Embassy in Egypt.

The Egyptian technical experts will be recruited on a personal basis and would have preferably worked in Fayoum before. This is important since it helps to form a homogeneous team of Al Azab staff and consultants.

Tailormade staff training in Egypt can be organised. In addition to the core team short-term assistance will be requested from senior Egyptian consultants when the need arises.

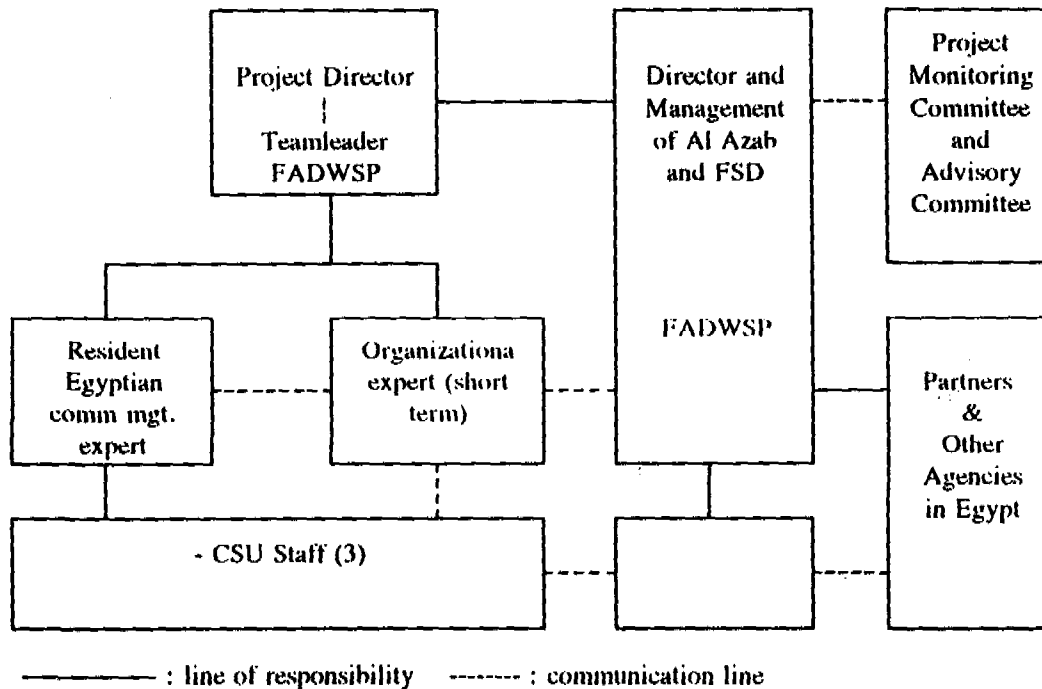
The CSU will be housed in the office of Al Azab in Fayoum.

5.5 Workplan

A detailed planning of activities for the project component, based on this document and the FADWSP workplan for Phase 2, will be prepared within 8 weeks after the start of this component. We will discuss the details with the staff of Al Azab, FDS and the three main implementing partners.

Recruitment of consultancy staff will take little time because FADWSP is familiar with the Fayoum, with exception perhaps of the Egyptian coordinator.

Figure 5.2 Organigram



5.6 Proposed duties of the Customers Service Unit

It is the intention to give the Customers Service Unit the following duties, which it

needs to fulfill in consultation and cooperation with Al Azab, FSD, and other Departments and NGOs:

#### GENERAL

- \* Preparation of a Customers Services policy and plan
- \* Setting targets and timetables for achievement of customer involvement and information objectives
- \* Cooperation with different partners outside the Al Azab and developing concrete workplans with them
- \* Training of own and counterpart staff

#### PUBLIC TAPS

- \* Promotion of cleaning and maintenance of public taps by users, minimally 200 taps
- \* Monitoring of the public taps programme and reduction of water losses
- \* Motivation of all water users to contact the proper authority on water issues/providing access to decision makers
- \* Identification of villages for project implementation

#### CUSTOMER INFORMATION/ENVIRONMENTAL HEALTH EDUCATION

- \* Directing of seminars and village level workshops
- \* Instruction to customers concerning use of facilities.

#### ON-SITE SANITATION

- \* Promoting of on-site sanitation, testing alternative pits
- \* Support increase of desludging capacities, which includes investigating the feasibility of loans to private operators, and safe wastewater disposal
- \* Promotion of local solid waste collection in 3 villages
- \* Monitoring and evaluation

## 6 PRINCIPLES OF FINANCE AND LOCAL REVENUE COLLECTION

- 6.1 Two principles in the move of Al Azab towards becoming an independent company are that the company should manage its assets in a cost-effective way and that customers should pay for services.

It is the Ministry of Housing and Public Utilities which has to issue a decree on the foundation of a public sector company, after certain requirements are fulfilled. A first joint discussion between several Governorate water and wastewater companies on the legal and institutional framework and financial viability of independent utility companies, organised by the Aswan Water Company Project was held in October 1993. It appeared that, although Egypt has no law on public utilities, there are 3 or 4 laws which may accommodate the foundation of an independent public sector company. One is law 97 (1983) on public sector authorities, and one is law 159 (1981), being the Law of Joint-Stock Companies, Partnerships Limited by Shares and Limited Liability Companies, which is mentioned as preferred legal basis by the World Bank. The discussion focuses on three issues: (i) the degree of flexibility and autonomy of the future company allowed by law; (ii) the likelihood whether such company is able to attract private investors, c.q. shareholders; and (iii) and the question whether such independent company could ever run without subsidies.

Four water companies are in the same boat: those of Aswan, Fayoum, Beni Suef and Kafr El Sheikh.

Recovery of costs, in whatever pace, is emphasized as one of the guiding principles on the road to 'privatisation'.

- 6.2 Some constraints for full cost-recovery are:

- Improvement in services will not show immediately to all customers.
- At the start government subsidy remains necessary to cover budget shortages. Therefore the water company could ask why exert so much effort if we still get money from the government?
- The willingness to pay a higher price for water, or to pay at all, has to be advocated with different users: domestic users, government establishments and industries. In Fayoum government users show more arrears in their bills than domestic users.
- Because the current tariff structure is set nationally the question is whether in the future the company will have the autonomy to design its own tariff structure.

(N.B. The most recent national tariff schedule authorized by the Ministry of Housing and Public Utilities was set in 1987. It called for covering 100% of the cost for water and 50% of the cost of wastewater disposal in 5 years. A ministerial decree of 1989 allowed the Governorates to increase tariffs by 200%. But because Governorates can't retain revenues locally they have no interest in doing so. Also popular councils have no interest in supporting water agencies to become financially autonomous, since they

fear increase in rates, without the public noticing greater efficiency in services.

Autonomy in attracting professional staff may be even more important. Presently water companies are staffed by government employees, who are promoted on seniority rather than merit.<sup>7)</sup>

6.3 For 60% of the domestic consumers in Fayoum Governorate public taps are the primary source of water. Financing of reconstruction of about 400 public taps, including a now lacking platform and drain, which aims at reduction of losses and improved sanitary health is planned to be covered by FADWS Project.

However, customers preferably should donate a cash contribution, of say 50% (or LE 750), to this investment for three reasons:

(i) this instills a feeling of ownership and hence responsibility;

(ii) this provides a basis for any future system of regular payment for public tap services by the users;

(iii) 38% of the PT users are willing to pay a monthly fee for better service (see: socio-economic survey), even without having any example of how a better service would look like. Moreover in case a habitation is eager to get a tap, it is able to collect the necessary funds within a couple of days (for example hamlet Bura in Kallamshah).

For such one-time contribution no law is needed, it could be organised through local leaders, such as *sheik-el-ballads* or *omda's* with help of motivators.

Costs would be around LE 10 per household, assuming an average of 70 households per public tap.

Another issue is the development of a collection system for regular payment of users for PT maintenance and service. Two models have been proposed in the past: (i) a water vendor per tap, which sells water to customers. Disadvantage: in view of the low tariff (0.15 pt. per m<sup>3</sup>) and low waterconsumption ( $\pm 10$  l/c/d) this would amount in no more than LE 26.5 per month per tap, provided that such water vendor would work 14 hours per day; (ii) billing of the Local Unit, based on meter reading, which then recollects the amount through local taxes. Disadvantage: there are hardly local taxes for most hamlets, where the majority of PT water users live.

An alternative proposed here is (iii) billing of water consumers based on local services, not on actual water consumption. This may be simpler and easier.

The idea is to demand and collect a monthly small fee from PT water users based on services. Like with solid waste, it is impossible to record to exact volume used, per household. Households pay according to their size LE 1 or LE 2 per month to the Local Unit.

An introduction of any system must start with acquiring approval by the Governor

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<sup>7</sup> Arab Republic of Egypt, Egyptian Core Environmental Program. Multi-donor mission, January 1993, 2nd draft April 19, 1993.

and organizing information meetings with local leaders.

Although this is not realistic at present, such system, once implemented could contribute substantially to Al Azab's revenues:

Potential income:  $1500 \times 70 \times \text{LE } 12 = \text{LE } 1,260,000$  per year

On 400 rehabilitated taps:  $400 \times 70 \times \text{LE } 12 = \text{LE } 336,000$  per year

The system for fee collection:

A team of two Local Unit staff, one administrator and one cleaner, cover 6-8 taps. They could work parallel to the Local Unit collection team for house connections.

One is responsible for cleaning, minor repairs and motivating users and one for fee collection. The latter first registers all households using the tap, in consultation with the local leader. This list is given to Al Azab, which prepares monthly payment forms, listing all households using the same tap. The households which have paid sign for this on the form. Monthly the forms are checked at the Local Unit and by the Al Azab maintenance.

When households pay an average of LE 1/month this results in an average revenue of LE 210-280 per tap attendant in exchange for a salary of LE 100. It means that about LE 36 - LE 45 per tap per month is left for covering waterconsumption and maintenance.

Al Azab, supported by the Project, should then initiate the following activities:

- continue the programme of overhaul and rehabilitation of public taps (planned)
- installation of water meters at upgraded taps (planned)
- include the public taps in a separate register of water consumers (not yet planned)
- include the public taps in a regular visit scheme of the public taps maintenance staff (planned in Senoures and Itsa).

6.4 Installation and material costs of sanitary pits, after these have been successfully tested, should be borne by the user.

Community actions consisting of promotion of latrines and providing information to potential customers on different technical and cost options are to be borne by the FADWS Project.

6.5 Financing of local solid waste collection can be organised in line with the fee system set up already in Fidimeen and Aboksah: the Local Unit collects LE 1/month for 1-2 rooms houses; LE 2/month for 3 rooms houses and LE 3/month for larger houses.

6.6 Costs for information and education will be borne by the FADWS Project.

## 7 MONITORING AND EVALUATION OF SOCIAL INPUTS

- 7.1 In this stage we can only emphasize the role of documentation in planning, monitoring and evaluation of village level activities. Systematic monitoring at public tap level, at community (hamlet or village) level and Local Unit level provides the basis for depicting the process of change initiated by villages and catalyzed by the Project.  
Unfortunately, the monitoring instruments, which are developed elsewhere in water and sanitation programmes, don't apply to the Fayoumi situation. Time restrictions of the present mission prevented us to develop the framework for monitoring formats.  
Use of monitoring sheets on at least three levels (tap, village and programme level) have however proven to be provide very important information on progress; information which is needed to evaluate the effect of interventions and to formulate further planning.
- 7.2 Every month concise and comprehensive information should be collected on three broad categories of information:
- technical aspects (monitoring of existing and new infrastructural facilities)
  - social aspects (including information on community participation and institutional development)
  - awareness and education aspects (including health awareness and practices).
- The aspects which are measured in monitoring formats, varying from number of households using a public tap to periodic contribution of households to maintenance, can be divided into three broad categories or indicators to which they contribute: (i) sustainability; (ii) effective use and (iii) replicability.
- 7.3 Monitoring of community services concentrates on:
- state and quality of facilities
  - use of facilities
  - collection systems
  - integration of environmental health education in construction activities
  - information meetings
  - community initiatives
  - institution development.
- 7.4 Monitoring undertaken by the CSU will complement other Project monitoring activities, which together contribute to the development of a management information system with help of which the agencies responsible for water delivery and wastewater disposal can act more efficiently.
- 7.5 A detailed workplan on community services will be submitted within 8 weeks after the start of the component. From then onwards will be reported in the FADWS quarterly progress reports.  
Separate monitoring reports will be prepared on the various activities.



## 8 PARTNERS IN IMPLEMENTATION (PROPOSED)

8.1 Involving other governmental and non-governmental partners in implementation of community services in the area of water and sanitation is a desirable and necessary condition for success. But it requires continuing investment in communication and information, a clear demarcation of each partner's responsibilities and a strong mutual commitment and interest. Partners are not simply sub-contracted, but are selected in view of mutual benefits. The cooperation process will be directed the FADWS Project. Its Community and Customer Services Unit will act as facilitator, provide specific input and monitor the process.

For each activity one expert staff of CSU will act as a coordinator.

Table 8.1 Counterparts & Partners in Community and Customer Services

Activity	Counterpart	Implementing Partner
Public tap community maintenance	Al Azab	- F. Rural Health and Family Planning Project - CARE Fayoum - ORDEV
On-site sanitation	Fayoum Sanitation Department (FSD)	- FADWS Project - Domestic users
Desludging capacity improvement	(FSD)	- Bank of Egypt - Private operators
Solid waste collection	(FSD), ORDEV	- Local government: Local Units
Customer information	Al Azab	- FADWS Project
Environmental health training	Department of Health	- FARHFP Project in Itsa District - CARE in some other villages

### 8.1 Fayoum Rural Health and Family Planning Project

Possibilities for cooperation with the Fayoum Rural Health and Family Planning Project (FARHFP) have been investigated by acquainting with the scope and objectives of the Project<sup>8</sup>, and by discussing options with the Steering Committee, the Project staff and Project Executive Director, Dr. Ahmad, and the Senior Technical Advisor, Mr. H. van Luijk.

The Director General of the Department of Health has, on behalf of the Governor of Fayoum, given his approval to the cooperation between the two projects.

The Plan of Operations states as the project aim to contribute to the solution of Egypt's population problem at community level in direct contact with the target

<sup>8</sup> FARHFP, Plan of Operations 1992-1995, Amsterdam/Fayoum, 1992.  
FARHFP, Yearplan 1993, Amsterdam/Fayoum, 1992.

population. In principle environmental health could be accommodated in the training and tasks of the female village health promoters. Eventually the project will train 122 Health promoters. Each health promoter caters to the needs of 400 families, while The project has started in the Local Units of Moutoul and Alhana.

An intensive 2 to 3-days workshop for staff of both project is envisaged as the start of the cooperation.

Because of its geographical limits, FARHFP operates only in Itsa district, other partners have been approached also.

- 8.2 ORDEV. The Organisation for the Reconstruction and Development of Egyptian Villages (ORDEV), established in 1973, is a project organisation for local development funded by USAID. It provided matching funds for local investments to Local Units and implemented local projects in the field of groundwater lowering and rehabilitation of water and sanitation facilities. In 1992, after the finalization of the Local Development II Programme, its role changed.

USAID still provides a matching fund of 90%, hence local fundraising needs to be 10% of the project costs, but funds are channeled from the Governorate directly to the implementing agencies, such as Al Azab.

ORDEV Fayoum has about 150 staff at Governorate level, 15 in each of the five districts and 2 staff per Local Unit. Both ORDEV and the FADWS Project have expressed the intention to cooperate in development of a sustainable public taps community maintenance model. The Managing Director of ORDEV, Mr. Hussein Ezzel Din, expressed its support in organising meetings with local leaders at the Local Unit level.

- 8.3 CARE Fayoum

CARE Fayoum focuses, with a staff of around 30, on sustainable development activities in 30 villages in Fayoum Governorate. Through the Community Initiated Development (CID) Programme, 1990-1993, it organises development projects together with Community Development Associations (CDAs) and manages revolving funds for people to establish small enterprises. The Agroforestry Project, a component of CID, provides technical and information service to resource-poor farmers.

Next year in 1994 CARE expects to start an Environmental Education Project, related to water and sanitation. Already CARE staff identified a number of problem villages and hamlets where people are eager to receive public tap water. After we explored in discussion sessions the possibilities for complementary activities the mutual intention has been expressed to join efforts between CARE and FADWS Project, starting with cooperation in the public tap programme. A joint workshop at the start of Phase 2 will be the kick-off of the cooperation.

- 8.4 Other Egyptian agencies

Amongst the other agencies that will or may play a role in project implementation are:

- Local government - Local Units implement meter reading and collection of

solid waste

- Bank of Egypt - responsible for loan programmes to small entrepreneurs
- Department of Health - water quality for drinking water, school health
- Egyptian Environmental Affairs Agency (EEAA) - responsible agency for the Egyptian Environmental Action Plan
- Department of Social Affairs - responsible for Community Development Associations

#### 8.5 Egyptian training and consultancy firms

It is planned to engage Egyptian training and consultancy firms, well-versed in local development, for short-term consultancies which address programme needs, especially in the field of:

- production of audio-visuals and a brochure for Al Azab customers
- consultancy on public relations and local fundraising
- training for project staff in:
  - \* Management Information Systems (relevant for monitoring)
  - \* Social Marketing
  - \* Skills of Dealing with Customers

9 CRITICAL ISSUES AND CONSTRAINTS TO EFFICIENT IMPLEMENTATION: AN ASSESSMENT AND RECOMMENDATIONS

- 9.1 The successful implementation of the proposed community services component depends on the full support and commitment of the GON and GOE, the Governorate, the Project authorities, and partially of the partners, which are proposed.
- 9.2 Gaining the credibility of the people is a major effort in rural Egypt, and will only be successful if the Project jointly with Al Azab can answer promptly to community initiatives, keeps promises, and makes progress visible.  
The public taps programme is an excellent start.
- 9.3 It is recommended to try out different approaches which encourage people's initiatives in a village. We have more questions than answers here: are people cooperative, and do they see the importance of improvements in water, sanitation and hygiene related services. They say they are, but are they really willing to pay regularly for these services? And do people use facilities, such as toilets and taps, in a proper way after health education?
- 9.4 Involvement of women both in the project team and in the villages is crucial for the success of this project. Women deal easier with women, while women in the households are the ones who teach their children and family how to behave.
- 9.5 It is also recommended to train staff as much as possible in Egypt. Especially for female staff it is complicated to join a course abroad.
- 9.6 Finally, when the FADWS Project starts to cooperate with other partners, it is important to bring incentives for trainees, trainers and fieldstaff on par.

FAYOUM DRINKING WATER AND SANITATION PROJECT

RAAMPLAN 1994-1998

		1994	1995	1996	1997	1998
A	COMPLETION PHASE I	■	E E E E	D D D D		
B	PHASE II TA CONTRACT		■ Continue?			
C	COMMUNITY SERVICES UNIT COMPONENT		E E	D D	■ Continue?	
D	INVESTMENTS WATER SUPPLY		E	D	■	
E	INVESTMENTS WASTEWATER		E E	D D	■	
	PROGRAMME EVALUATION		E	D		
	DECISION TO CONTINUE ACT. B/C		EEEE	D D D D		
				DDDD		

NB: INVESTMENT PROGRAMME FOLLOWS EGYPTIAN FINANCIAL YEARS

**FAYOUM DRINKING WATER  
AND SANITATION PROJECT**

**COMMUNITY SERVICES COMPONENT**

**DRAFT PROGRAMME FORMULATION**

November 1993

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**1. BACKGROUND AND JUSTIFICATION**

The FaDWS Project is presently preparing the workplan for Phase II, i.e for the period 1994/95. This workplan is based on the results of Phase I and is placed within the framework as set out by the masterplan for water and wastewater. It is envisaged that the Technical Assistance requirements for Phase II are heavily dominated by organisational and technical support for the two counterparts in the project, i.e. El Azab Water Works and Fayoum Sanitation Department. On the other hand however, there is also a clear need for community based activities in the project.

Having studied the various operational alternatives for the project in Phase II, the need was identified for a third project component, which should, within the general FaDWS framework, be concentrating on the community aspects of water supply and sanitation.

The new project component should aim at integration between water supply and sanitary improvements, solid waste disposal and hygiene education at community level. The Monitoring Committee of the Project has also emphasised the importance of making hygiene education and solid waste activities part and parcel of sanitation activities at village level.<sup>1</sup>

Successful implementation of the on-site sanitation programme, as well as public taps maintenance in consultation with customers, Local Units and other partners, requires additional resources and technical assistance. So do hygiene education and proper attention at community level for solid waste disposal.

It was realised, after the completion of the hygiene education pilot project, that incorporating a serious community component in the ongoing project, without allocating additional resources, would be problematic for the following two main reasons:

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<sup>1</sup> Dr. A. Gaber and Ir. H. Van Schaik, Monitoring Committee End of Mission 2 Report. February 1993, p. 13.

- a. neither El Azab nor Fayoum Sanitation Department have the related responsibilities or the established institutional relationships and contacts;
- b. consequently, considerable effort has to be made for establishing and maintaining relationships with new counterparts at all administrative levels and communities.

It can be concluded that implementation of the community component in the project will only be possible if additional technical assistance becomes available. Substitution of part of the ongoing project activities is not recommended.

The FaDWS Project aims at health education which is functionally related to water supply and sanitation. Therefore it should be complementary to physical construction activities.

For the realisation of this programme it is proposed to establish a new Unit, the Community Services Unit within FaDWS to implement the project component. Since the Project cannot do this alone new partners are approached.

This new project component is herewith presented for separate consideration and appraisal to the Governorate of Fayoum, RNE and DGIS. In such a way the ongoing decisionmaking process concerning the programme for Phase II is not interrupted. A separate TA budget is requested for the activity; implementation funds are available from the investment budget for Phase II.

The formulation of the project activity is based on project experience in Phase I, during which a number of pilot activities have been undertaken at the village level: reconstruction of public taps and construction of school toilettes and a septic tank in Kalamshah; an intensive socio-economic study of five Local Units <sup>2</sup>; and a hygiene education pilot activity in two LU's. Besides, various smaller supporting studies were carried out.

## 2. OBJECTIVES OF THE COMMUNITY SERVICES PROGRAMME

The objectives of establishing a Community Services Unit in the FaDWS Project in Phase 2 are:

- to effectuate a positive impact of physical improvements on public and environmental health;

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<sup>2</sup> FaDWS, *Socio-Economic Aspects of Drinking Water and Sanitation in Fayoum Rural Communities: Results of a survey in five villages and attached hamlets.* Fayoum, December 1992.

FaDWS, *Final Report Pilot Hygiene Education Programme.* Sept. 1993

- to involve customers in upkeep and maintenance of public and private facilities resulting in more responsibility of users;
- to promote an efficient and proper use of facilities to enhance their lifetime;
- to increase people's awareness of importance of water supply and sewerage services and to enhance their cost-consciousness, also by increasing a positive perception of the public of the water and wastewater agencies in the Governorate of Fayoum. This is a precondition for their willingness to pay for adequate services;
- strengthening of organisational capacities at Markaz and Local Unit (LU) level for planning, management and maintenance of infrastructure and the guidance of community involvement efforts;
- to support and strengthen the role of women in decisionmaking and community activities.

These objectives fit within the wider development objectives for the sector of both the Netherlands and the Egyptian government.

### **3. PROPOSED ACTIVITIES AND APPROACH**

#### **3.1 General**

The selection of activities is based on experiences in Phase 1. Dependent on staffing of the Community Services Unit activities can be taken up more intensively.

We distinguish five types of village level activities:

- i. On-site sanitation
- ii. Solid waste management
- iii. Environmental and sanitary health education
- iv. Public tap management

For detailed background information about these activities reference is made to various FaDWS technical reports.

#### **3.2 On-site sanitation**

##### *Present situation*

On-site sanitation is the only short-term option for the majority of the rural people in



Fayoum, because of the high investment costs in sewerage systems. The situation of on-site sanitation in the whole of Fayoum is poor.

#### *Specific goals*

(i) increasing coverage with on-site sanitation; (ii) testing of pit designs which cause less smell, overflow and health risks than the present cess pits; preferably the pit is cheaper for the user and puts less load on wastewater treatment facilities (iii) increase of desludging capacities; (iv) safe wastewater disposal and (v) introduction of cost-recovery principles for public wastewater services.

#### *Activities*

To reduce overflow and desludging costs caused by the present cess pits, FaDWS will make efforts to design a technically feasible pit, based on the septic tank with a leaching pit principle, to be tested for 20 households. After testing of sound technical options these will be promoted to the public, so this can make a selection based on cost and space. A disadvantage which remains is that, even after primary treatment is applied, the leaching pit's wastewater will not infiltrate in areas with low soil permeability. The test will be performed with plastic and other containers.

In certain areas community septic tanks may be tried, as an intermediate step between an individual pit and modular sewerage.

If on-site sanitation coverage increases, desludging constraints will grow. The Fayoum Sanitation Department expects that the first of 11 planned wastewater treatment plants will be operational in 1996/97. Meanwhile it seeks solutions by encouraging Local Units to reserve land for sludge stabilization ponds.

The Project can help to increase desludging capacity. First of all by improving the efficiency of the Markaz desludging services. Secondly by advising on more appropriate equipment. Thirdly by encouraging private operators. In Kafr El-Sheikh privatisation of desludging is successfully tried. This example will be investigated and considered for application in Fayoum.

### **3.3 Local solid waste collection systems**

#### *Present situation*

Solid waste collection in rural areas is generally absent (see FaDWS Technical report on Solid Waste). Especially in the bigger villages this leads more and more to unacceptable environmental conditions. Frequent solid waste dumping in drainage canals cause clogging and water pollution. Ways shall be sought to improve this situation in selected villages in the form of pilot projects.

The basic law for solid waste collection, treatment and disposal is Law no. 38 (1967), amended by Law 31 (1976). This law regulated collection and disposal of solid waste and supports the municipality, or Local Unit, to collect a fixed monthly fee from its citizens for solid waste collection and to enforce adherence to the collection system.

*Activities:* in some of the richer and bigger villages, for instance those where the FaDWS is planning to implement a sewer system, the introduction of local solid waste collection may be supported. The legal preconditions must be investigated first, and secondly the scope for cost recovery. If these conditions are met, some investments may be made.

### 3.4 Environmental health education

The pilot project on hygiene education was completed in July 1993. The lesson learned is that educational activities in the future have to be clearly linked to construction programmes and institutional backing.

However, the training module on water which was developed is unique, because it is exclusively based on the situation in Fayoum. Important elements are:

- (i) relation between general practices in villages and possibilities for behavioral changes and health improvement;
- (ii) giving insight in most critical health hazards in Fayoum to private and public health;
- (iii) providing awareness of possible ways to improve sanitary practices.

In discussions with the DEpartment of Health and the Netherlands supported Fayoum Health and Family Planning Project (FaRHFP) the willingness has been expressed to include in FaRHFP health training environmental health issues. The Project aims at training 122 village Health Promoters in Itsa District in 1994/1995, each responsible for informing and training 400 families. In a joint workshop between the staff of both projects, in early 1994, a detailed work programme is planned to be elaborated.

Environmental health training aims at increase of user involvement in cleaning and maintenance of their public taps. Typical environmental health messages, e.g. on avoiding water wastage, proper water storage and waste water disposal, and health risks of using canal water etc. will be combined in one communication strategy.

### 3.5 Public taps

#### *Present situation*

For nearly 60% of rural people in Fayoum, public taps (PTs) are the only drinking water source. PT maintenance is partly the responsibility of the district maintenance

centres of Al Azab and partly that of the users. PT use is characterised by heavy water losses, because of malfunctioning taps, intensive use and poor maintenance.

### *Specific goals*

In Phase 2 FaDWSP plans to rehabilitate some 240-300 of the total of 1500 public taps and provide the reconstructed taps with platform and drain. The PTs selected must meet three criteria: (i) good water pressure in the main; (ii) having a large number of users; (iii) a poor present condition. The main aims are: reduction of wastage, and maintaining a hygienic and basic service level. Other goals are better maintenance logistics, metering of consumption and where possible revenue improvements.

The goals can only be reached if the users take responsibility for cleaning and small repairs of the platform, keeping the tap environment clean and without stagnant water, and for warning Al Azab maintenance team in case of leakages. A durable solution is regarded impossible without help of the users.

Close interaction is required between users and the El Azab maintenance teams who are responsible for technically properly functioning taps.

It is realised that public tap users are not easily motivated to cleaning a public tap environment, when there is dirt, waste and flies everywhere in the village environment, not the least in and around many of their own houses. A general increased awareness on hygienic environmental conditions has to be aimed at in the first place. To achieve this intensive promotion campaigns are called for.

### *Community activities*

Users will be informed during hygiene education programmes on how to properly use and clean a public tap. Competition in cleanliness could be encouraged, for instance by providing a prize for the users of the winning tap.

### *Organisational development activities*

Involving the El Azab MC Centre, with respect to proper functioning of the PT maintenance team. Cost recovery of water consumption from PT's might be organised through the LU's, although this is not the first priority. It was analysed in the master-plan that revenues from public taps would amount to hardly 7% of the total target revenue. With waste reduction at public taps and proper maintenance more important savings can be achieved.

## **3.7 Criteria for project execution**

Criteria for including village level projects in the CSU programme are the following:

- The locations where trained Health Promoters or sanitarians are already working, so infrastructural works can be combined with users education.
- The villages covered by fieldstaff of other implementing partners, such as CARE or ORDEV.
- The successful development of feasible alternatives for the present sanitary cess-pits.
- Taking physical progress of PT rehabilitation as a starting point for educational activities;
- Cooperation obtained at LU level.

#### **4. INSTITUTIONAL SET-UP, MAIN DUTIES AND PARTNERS OF THE CSU**

##### **4.1 Options and proposed set-up**

There are two main options for creating the proposed CSU, provided the CSU should be linked to an already existing institution:

- Establishing the CSU within the present Project.
- Establishing the CSU under the responsibility of the project, but attached to a new counterpart.

The first option is not recommended, because the CSU activities would be identified too much with Azab and FSD.

The second option is recommended for further investigation. Since the activities of the CSU will be multi-sectoral, attachment to a specific Governmental department is not recommended. Attachment to the Markaz level may be considered.

The advantage of the second option is that easy access is available to all sectoral departments (ORDEV, DOH, DOSA and Engineering). The link with El Azab and FSD remains strong. The operational level is close to the communities.

Markaz Itsa is proposed for the location of the CSU, in order to enable close cooperation with FaRHFP. The set-up is presented in the diagram on the next page.

##### **4.2 Proposed duties of the Customers Service Unit**

It is the intention to charge the Community Service Unit the following duties, which it needs to fulfill in consultation and cooperation with Markaz Itsa, Al Azab, FSD, and other Departments and NGOs:

- \* Relation building and preparing cooperation with different partners and developing concrete workplans with them
- \* Training of counterpart staff
- \* Identification and selection of villages for project implementation.
- \* Promotion of cleaning and maintenance of public taps by users, through hygiene education programmes;
- \* Directing of seminars and village level workshops
- \* Testing alternative pit designs and promoting on-site sanitation
- \* Supporting increase of desludging capacities, which includes investigating the feasibility of loans to private operators, and safe sludge disposal
- \* Promotion of local solid waste collection

### 4.3 Proposed Partners in Implementation

Involving other governmental and non-governmental partners in implementation of community services in the area of water and sanitation is a desirable and necessary condition for success. But it requires continuing investment in communication and information, a clear demarcation of each partner's responsibilities and a strong mutual commitment and interest. Partners are not simply sub-contracted, but are selected in view of mutual benefits.

Table 4.1 Counterparts & Partners in Community and Customer Services

Activity	Counterpart	Implementing Partner
On-site sanitation	Markaz	- Local Unit - Domestic users
Desludging capacity improvement	Markaz	- Engineering Department - Private operators
Solid waste collection	Markaz, Local Unit	- Engineering Department
Public tap community maintenance	Al Azab	- F. Rural Health and Family Planning Project - CARE Fayoum - ORDEV
Environmental health training	Department of Health	- FARHFP Project - CARE in some other villages

#### Department of Health (DOH)

Possibilities for cooperation with the Fayoum Rural Health and Family Planning Project (FARHFP) have been investigated by acquainting with the scope and objectives

of the Project<sup>3</sup>, and by discussing options with the Steering Committee, the Project staff and Project Executive Director, Dr. Ahmad, and the Senior Technical Advisor, Mr. H. van Luijk.

The Director General of the Department of Health has, on behalf of the Governor of Fayoum, shown his interest for the cooperation between the two projects.

The Plan of Operations states as the project aim to contribute to the solution of Egypt's population problem at community level in direct contact with the target population. In principle environmental health could be accommodated in the training and tasks of the female village health promoters. Eventually the project will train 122 Health promoters. Each health promoter caters to the needs of 400 families, while the project has started in the Local Units of Moutoul and Qalhana.

#### ORDEV

The Organisation for the Reconstruction and Development of Egyptian Villages (ORDEV), established in 1973, is a project organisation for local development funded by USAID. It provided matching funds for local investments to Local Units and implemented local projects in the field of groundwater lowering and rehabilitation of water and sanitation facilities. In 1992, after the finalization of the Local Development II Programme, its role changed.

USAID still provides a matching fund of 90%, hence local fundraising needs to be 10% of the project costs, but funds are channeled from the Governorate directly to the implementing agencies.

ORDEV Fayoum has about 150 staff at Governorate level, 15 in each of the five districts and 2 staff per Local Unit. Both ORDEV and the FADWS Project have expressed the intention to cooperate.

#### CARE Fayoum

CARE Fayoum, in cooperation with the Department of Social Affairs (DOSA) focus, with a staff of around 30, on sustainable development activities in 30 villages in Fayoum Governorate. Through the Community Initiated Development (CID) Programme, 1990-1993, it organises development projects together with Community Development Associations (CDAs) and manages revolving funds for people to establish small enterprises.

Next year in 1994 CARE expects to start an Environmental Education Project, related to water and sanitation. Already CARE staff identified a number of problem villages and hamlets where people are eager to receive public tap water. After we explored in discussion sessions the possibilities for complementary activities the mutual intention

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<sup>3</sup> FARHFP, Plan of Operations 1992-1995, Amsterdam/Fayoum, 1992.  
FARHFP, Yearplan 1993, Amsterdam/Fayoum, 1992.

has been expressed to join efforts between CARE and FaDWS Project.

## 5. STAFFING AND BUDGET

### 5.1 Staffing of the CSU

The preferred CSU team should be headed by an experienced expatriate resident institutional and communications expert (preferably female).

#### Job description of CSU coordinator:

Preparation of the plan of operations, establish relations at policy and working level with departments and agencies in Fayoum Governorate and advise on all forthcoming management issues.

She will further be responsible for integrated component management and communications and be the liaison with the sectorspecialist on Women and Development of the Netherlands Embassy in Egypt.

Table 5.1 Proposed staffing of the CSU (2 years period)

Position	Qualification	Person months
Expatriate CSU coordinator	Senior institutional and communications expert	20
Expatriate sanitary engineer	Rural sanitation specialist	1.5
Expatriate socio-economist	Socio-economist	1.5
Egyptian coordinator/trainer	Rural sanitation expert (technical)	22
Junior bilateral expert (Dutch)	Environmental health expert	P.M.
2 village community workers	Experienced social workers	44
Local short term consultancies	Training, promotion materials, private sector desludging investigation	6
Markaz Steering Committee members	Heads of Departments	P.M.
Village Executive Committees members	Heads of Departments	P.M.

The Egyptian coordinator and trainer will have a technical background in rural sanitation. Two expatriate experts will provide necessary specialist inputs for socio-economic and technical issues. A bilateral associate expert shall be appointed.

Tailormade staff training in Egypt can be organised. In addition to the core team short-

term assistance will be requested from senior Egyptian consultants when the need arises.

The CSU may be housed in an office of the Markaz Itsa.

## **6. CRITICAL ISSUES AND CONSTRAINTS TO EFFICIENT IMPLEMENTATION**

The successful implementation of the proposed community services component depends on the full support and commitment of the GON and GOE, the Governorate, the Project authorities, and partially of the partners, which are proposed.

Gaining the credibility of the people is a major effort in rural Egypt, and will only be successful if the Project jointly with Al Azab can answer promptly to community initiatives, keeps promises, and makes progress visible.

It is recommended to try out different approaches which encourage people's initiatives in a village.

Involvement of women both in the project team and in the villages is crucial for the success of this project. Women deal easier with women, while women in the households are the ones who teach their children and family how to behave.

It is also recommended to train staff as much as possible in Egypt. Especially for female staff it is complicated to join a course abroad.