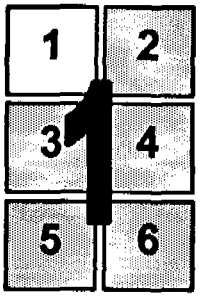

WHO ORDEV UNDP UNICEF

DRINKING WATER SUPPLY AND SANITATION SECTOR SUPPORT PROJECT IN EGYPT

(UNDP : EGY/82/002 WHO : EGY/CWS/001)

SOCIAL ASPECTS AND HEALTH EDUCATION

WORLD HEALTH ORGANIZATION
Regional Office for the Eastern Mediterranean
Alexandria
1992

DRINKING WATER SUPPLY AND SANITATION SECTOR SUPPORT PROJECT IN EGYPT

SOCIAL ASPECTS AND HEALTH EDUCATION

1. Social Aspects and Health Education

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In the name of God, the Compassionate, the Merciful

FOREWORD

I am pleased to have the opportunity of contributing a foreword to this series of six booklets prepared to describe the work which has been done under the project, "Drinking Water Supply and Sanitation Sector Support", in Egypt.

It is appropriate that, at the end of the project, we should analyze what has been achieved, what have been the successes and shortcomings of the project, and what lessons we can learn for the future development of the water supply and sanitation sector not only in Egypt, but also in other countries of the Eastern Mediterranean Region.

WHO has executed this project, with the financial support of UNDP and UNICEF, to provide technical support to the Organization for Reconstruction and Development of Egyptian villages (ORDEV), in order to extend water supply and sanitation services to rural communities. WHO has been guided by the approaches of the International Water Supply and Sanitation Decade which have called for the complementarity of sanitation development with that of water supply, the inolvement of communities in the planning and execution of projects, the utilization of appropriate technologies, and the training of personnel. The project has covered both software and hardware aspects, has used improved, self-sustaining and affordable methodologies, and, with its inter-sectoral approaches, has achieved a marked success in the rural areas of Egypt where it has been possible to implement demonstration activities.

I commend these booklets as illustrative of the success of this innovative project. If they can in some small way arouse interest in the importance, to us all, of the development of a sustainable programme of water supply and sanitation in rural areas, they will have served their purpose.

Hussein A. Gezairy, M.D., F.R.C.S.
Regional Director for the Eastern Mediterranean

PREFACE

This booklet is one of a series of six in similar format prepared to demonstrate the objectives, activities and outputs of the project of the Government of the Arab Republic of Egypt, in cooperation with the United Nations Development Programme (UNDP), the United Nations Children's Fund (UNICEF), and the World Health Organization (WHO), for Drinking Water Supply and Sanitation Sector Support project.

The booklets in the series are entitled:

1. Social Aspects and Health Education
2. Sector Information Management
3. Human Resources Development
4. Rural Sanitation Technology
5. Rural Water Supply Technology
6. Leakage Detection and Control

Copies of any of these booklets can be obtained from:

World Health Organization
P.O. Box 1517
Alexandria 21511
Arab Republic of Egypt

INTRODUCTION

The activities of the project, "Drinking Water Supply and Sanitation Sector Support", started formally in January 1987, having been preceded by a preparatory phase (Phase I) from October 1984 to May 1985. The project was formulated within the context of the International Drinking Water Supply and Sanitation Decade (IDWSSD), 1981-1990, with the development objective of assisting the Ministry of Local Government to extend water supply and sanitation coverage to Egyptian villages (numbering about 30000) and to other underserved sections of the population through improved infrastructures, human resources development and transfer of appropriate technology.

It was recognized that activities in the water supply and sanitation sector had been considerably accelerated in the first half of the Decade. The purpose of this project has been to build on this initiative and to support further development through:

- introduction and demonstration of affordable, appropriate technologies based on technical, economical and social feasibility;

- development of human resources development specialists and trainers for the planning and organization of training of water supply and sanitation personnel;

- upgrading of local capabilities in operation and maintenance, management, water and wastewater analysis, through appropriate training courses;

- assessment of sector information processes, identification of needs, and development of improved management information systems.

The project was considered to be of direct relevance to the promotion and support for women's participation in the IDWSSD for community participation, for health and hygiene education at the village level, and for the preparation of teaching and learning materials adapted to the sociological needs of village women.

This booklet describes the approaches which have been adopted in this field, the activities undertaken, the results and the evaluated effectiveness. Linkages with other projects and activities being undertaken in Egypt are referred to and proposals are made for further activities to be carried out in order to capitalize on the benefits that have already been achieved.

SPECIFIC OBJECTIVES

The project's specific objectives related to social aspects and health education have been to:

- create a link between the hardware components of water supply and sanitation introduced by the project and the community served (the social aspects of the project encourage the villagers of the community to accept and make proper use of the new technologies by establishing a causal linkage between health and the water supply, sanitation and solid waste management systems);

- make the village women and, through them, the local community, aware of the cycles of disease which arise from the misuse of water, sanitation and solid waste facilities;

- disseminate information on hygienic water and sanitation usage methods at the village level in order to spread and promote improved personal and environmental health/ hygiene standards, thereby ensuring the sustainability of the constructed water supply and sanitation facilities;

- promote the awareness that cleanliness and health care are interrelated, i.e. to emphasize the preventive aspects of health care and make people aware of the difference between this and curative medicine;

- involve women as the principal target, and the local community in general, in the planning, implementation and monitoring processes in order to ensure proper care and maintenance of the systems, minimize breakdowns and maximize health benefits; and

- create an integrated environmental approach through the institution of a solid waste disposal system to support village sanitation schemes and thus improve general health and environmental hygiene standards.

THE "ZIR" AND WOMEN

FETCHING WATER

PROJECT APPROACH

The social aspects and health education component of the project is one of the first experiments of this nature in Egypt. Support to hardware projects by such a software component is needed since it has been observed that often innovative and useful technologies have been neglected or misused through lack of awareness of the benefits they would bring, if used properly.

A team of external consultants and project staff has been used in approaching the problem of promoting community involvement and developing the role of village women in water supply and sanitation interventions. Operational linkages were established from the start of the project with the study being undertaken with support from the UNDP project for the Promotion of the Role of Women in Water and Environmental Sanitation Services (PROWWESS). This was followed by the assignment of a national consultant to assess, from a sociological and health point of view, the use of public water standposts and water supply systems, both conventional and compact plants, and the UNICEF- developed small groundwater abstraction systems in Upper Egypt.

In April 1989, an international sociologist was recruited to make an assessment in the four pilot villages, Mit Mazah, El Nazla, Menshat Kasseb and Ababda, and to plan activities to be undertaken in support of the hardware inputs. Concurrently, a national consultant was also engaged to make a more detailed study of the pilot village in Upper Egypt to identify needs in hygiene awareness and health education, and to initiate training of women in the use of the ventilated improved pit (VIP) latrines provided by the project.

A national sociologist was assigned to the project from July 1990 to implement the programme, taking into account the earlier inputs and developing appropriate practical approaches for activities in the four pilot villages where demonstration sanitation schemes were being developed. The activities and findings have included the following:

1. ASSESSMENT OF HEALTH AND HYGIENE STATUS AND NEEDS OF VILLAGE WOMEN AND LOCAL COMMUNITIES

The surveys of the health/hygiene status of Egyptian villages highlighted several issues:

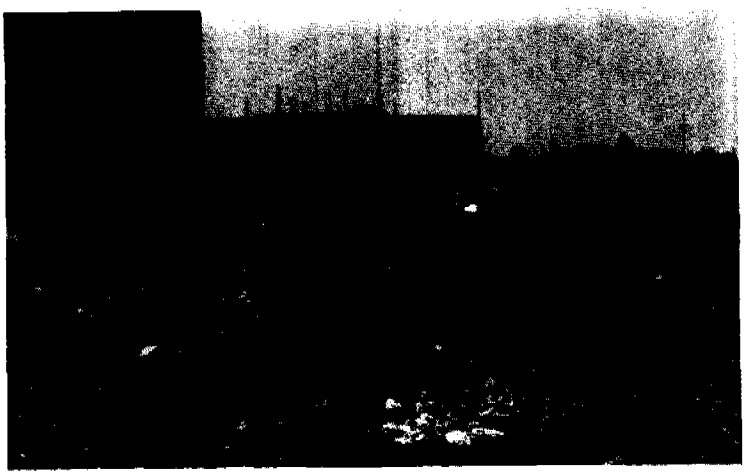
(a) Village women lack the knowledge related to health hazards resulting from the misuse of water and wastewater.

(b) An increased importance needs to be given to hand-washing practices, personal and household hygiene, and child cleanliness. The link between health and hygiene must be made evident to village women.

(c) The widespread habit of washing household utensils in canals persists among village women, despite the existence of piped water to the houses and public tap facilities. The women while performing household chores at the canal are also socializing. The urge to "get together" has been found to be stronger among village women than their fear of contracting waterborne diseases, such as schistosomiasis (bilharziasis).

(d) Many Egyptian villages lack adequate environmental health facilities for solid waste collection and disposal. This has become especially evident with the introduction of canned, preserved and wrapped goods into rural areas. These wastes which are at present thrown near dwellings or into nearby drains prevent their proper function, require to be handled in a non-traditional way to avoid creating a risk to public health.

WOMEN WASHING IN CANAL



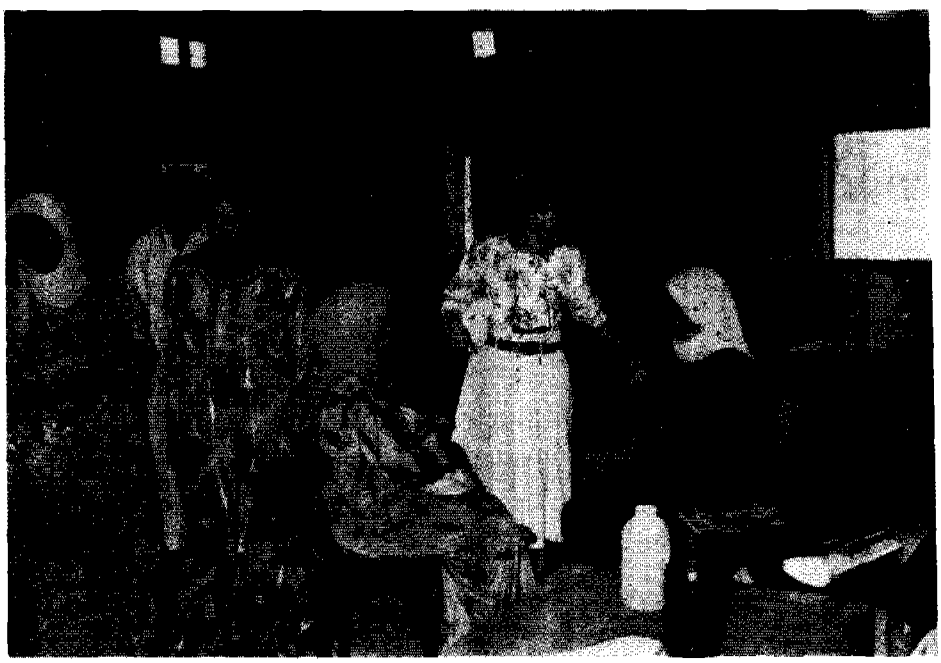
SOLID WASTE PROBLEM IN MIT MAZAH

2. DEVELOPMENT OF TRAINED CORE GROUP OF VILLAGE WOMEN TO IMPLEMENT HEALTH/HYGIENE TRAINING IN PILOT AREAS

The relative lack of awareness on the part of village women about the relationship between hygiene and health has to be addressed and remedied. Health education workshops have been found to be an appropriate means for introducing new habits to the village community. These involved:

(a) identification of women leaders to form a health education core group for training of households and also be responsible for further dissemination of health/hygiene information and spread of habits among other village women and the village community as a whole;
(b) development and collection of learning/teaching material for health education of village women; and
(c) implementation by the members of the core group of health and hygiene education messages in the specific pilot villages.

Women were the first target group because they are primarily responsible for household management and child rearing in Egyptian villages. It is, therefore, of great importance that girls and young women know as much as possible about matters of hygiene and health in everyday life.



DISCOURSE WITH WOMEN LEADERS

3. TRAINING OF CORE GROUP ON HEALTH/HYGIENE AWARENESS

It has been found that, in order to ensure the attainment of health education objectives, health training of the core group of women must be carried out on a training of trainers (TOT) basis by public health professionals with extensive experience in this field. Consequently, the project has organized:

(a) health/hygiene training in a 4- to 7-day workshop in Mit Mazah for a women's core-group covering the following issues:

- proper use of water supply, sanitation and waste disposal systems
- personal hygiene
- environmental hygiene
- water-related diseases
- fly and mosquito control
- various infectious diseases
- water and wastewater pathogens.

(b) that the trained women of the core groups conduct subsequently house-to-house training programmes over periods of two months to cover all households in the village. This outreach programme would have eventually taught rural women and girls the basic health and hygienic practices. Through the trained women of the core groups, changes will have been gradually introduced in health and hygiene behaviour of the village community.

HEALTH EDUCATION SESSION

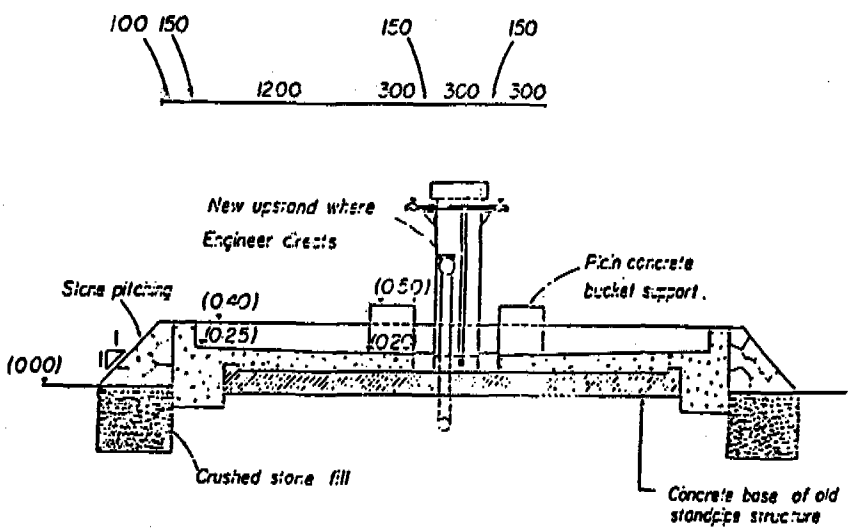
4. PUBLIC WATER TAPS

A sociological assessment was included as one of the components of the multidisciplinary survey (technical, economic and social) on public water taps. The study concluded that improved designs should be developed for safe water collection and for washing household utensils.

To counteract the problems of washing in the canals and the use of unhealthy water sources, the project has assisted in the installation of improved public water taps in the pilot villages of Mit Mazah (Daqahliya) and El Nazla (Fayoum). The choice of locations for the taps has been decided, in consultation with the village community, in order to serve areas where the numbers of house connections are few and where there are established routes leading to canals. The social and health implications of the installation of these standposts was assessed by the national consultant as providing the following principal advantages:

(a) The public tap constitutes a source of safe water for households which do not have a piped water connection. The daily chores of fetching water from a distance for drinking and washing purposes are thereby reduced through the more ready access.

(b) Provision of washing facilities for women decreases the dependence on the use of polluted canal water for this purpose.



DESIGN OF IMPROVED PUBLIC WATER TAP

5. ESTABLISHMENT OF SOLID WASTE DISPOSAL SYSTEM

In response to community demand, a solid waste management model has been developed by the project and is now under implementation in Mit Mazah village of Daqahliya Governorate. This is an innovative activity for the Egyptian village and emphasis has been given to collaborative work with the specific village community in order to reach an appropriate solution to the problem it is faced with.

(a) Garbage collection approaches are being considered, using a small trailer (1.20 x 1.80 m) and bins of 90 cm height and a diameter of 60 cm, mounted on a frame which can be easily tipped into baskets for removal. The project and the local community are sharing the costs.

(b) A service fee of LE 0.50 per month is to be contributed by each individual household using the system. With this revenue, a truck and a cleaning worker can be employed to empty the containers daily.

(c) In addition, a disposal lot is being procured through funds donated by the community. The location of the refuse disposal site is being selected bearing in mind the possible health hazards and their prevention.

SOLID WASTE BIN

6. INDIVIDUAL PILOT VILLAGE APPROACHES

The project has provided for the construction of demonstration sanitation systems in four pilot villages in different governorates:

(a) Mit Mazah, Daqahliya: a system of anaerobic, aerated and maturation ponds, as suitable for villages with land constraints.

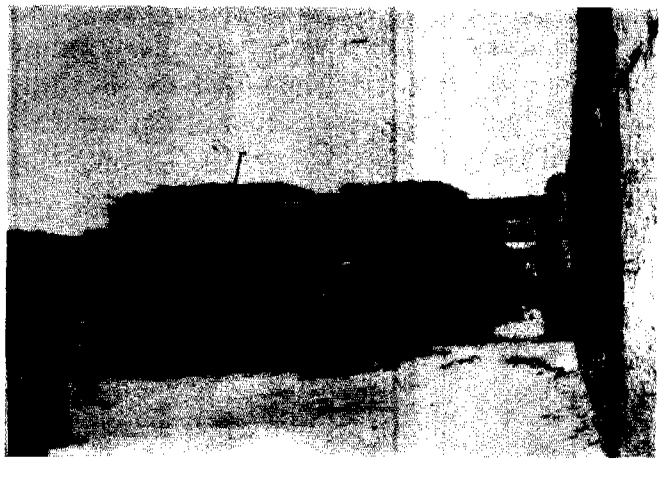
(b) El Nazla, Fayoum: a system of anaerobic, facultative, maturation and macrophyte ponds, as suitable for villages with no land constraints.

(d) Menshat Kasseb, Giza: a latrine and small-bore sewer system, as suitable for villages with piped water supply and high water-table.

(e) Ababda, Aswan: a ventilated improved pit (VIP) latrine system of the dry type, as suitable for small villages with low water-table.

EL-NAZLA

THE
"MOTHER" NILE



EL-ʿABABDA

(a) Mit Mazah, Daqahliya

Mit Mazah is a semi-urban village on account of its proximity to the Governorate's capital, El Mansoura. The village is composed predominantly of red brick houses (70%) with piped water supply and sewered sanitation facilities. However, the village lacked any sewage treatment plant, and untreated wastewater had been channelled raw into a small canal adjacent to the village. This was a source of dangerous pollution and constituted a threat of spreading disease in the community.

Under the responsibility of the project, an aerated lagoon treatment plant has been designed and constructed to deal with this problem in view of the scarcity of land. This has resulted in neighbouring villages, which have seen the advantages, requesting to be connected to Mit Mazah's treatment system.

Although Mit Mazah has a high degree of literacy and female employment, many women still follow the traditional habits with regard to water and reuse of wastewater, e.g. many of them still wash clothes in the canal and empty household waste into drains. On the other hand, villagers, both women and men, have been eager to accept and work with the project to improve their environmental and health status.

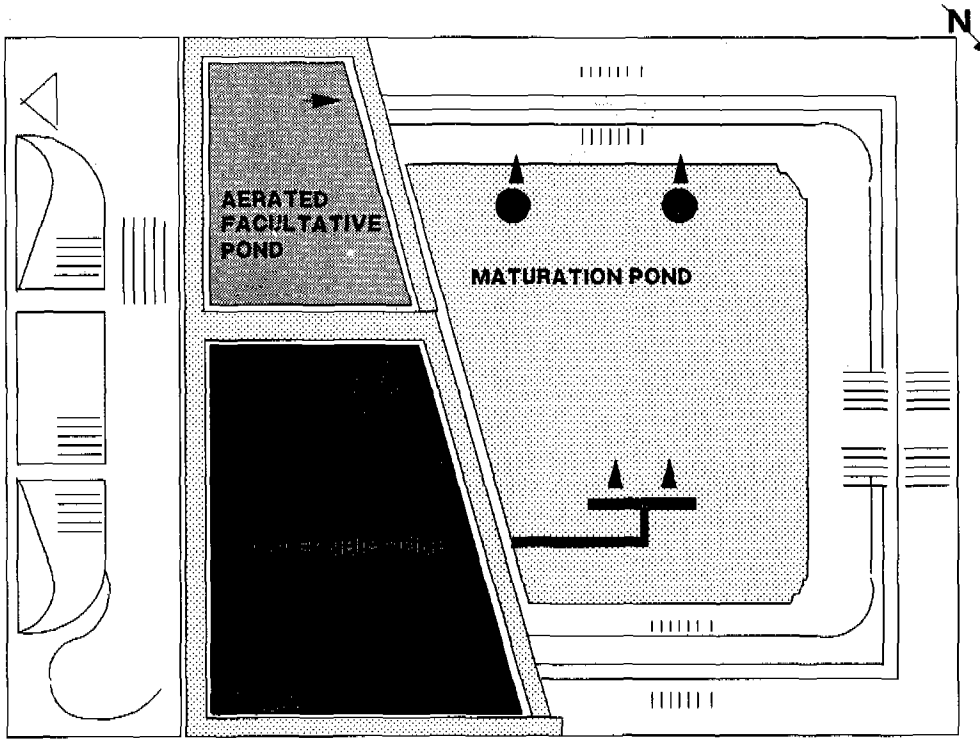
In discussions on the health education programme, village women complained of the lack of a solid waste disposal system. They were concerned at the discarding of household refuse carelessly in the village; women whose dwellings were near waste piles were particularly annoyed. They believed that their families were being exposed to all kinds of health hazards. In a community meeting, it was found that solid waste disposal was a priority for villagers.

The local community was especially eager for a solid waste management system because many villagers are employed in Mansoura City where they have seen the advantages of a refuse collection network (containers, collection truck and disposal site). The solid waste collection system is, furthermore, of considerable importance to avoid overloading the sewerage network and the treatment plant from the hazards they would otherwise be exposed to.

Two public water taps have been installed in the village after involving the women in the planning for the design and site selection. The women also specified their particular needs:

- walls should be constructed around the water taps for the sake of privacy and to shield them during water collection and washing; and
- a light should be fixed to the wall to illuminate the area near the taps at night.

Training in health education was necessary to ensure the proper ongoing use and maintenance of the sanitation improvements in Mit Mazah. The social work carried out has helped to draw the village community closer together to discuss and decide on the types of services they needed and how they could best assure their operation. This experience will be of value to them in the future to solve other problems on their own initiative after having learnt how to adopt a community approach to the problems.



GENERAL LAYOUT FOR MIT MAZAH SEWAGE TREATMENT PLANT

WOMEN AT A PUBLIC
WATER TAP

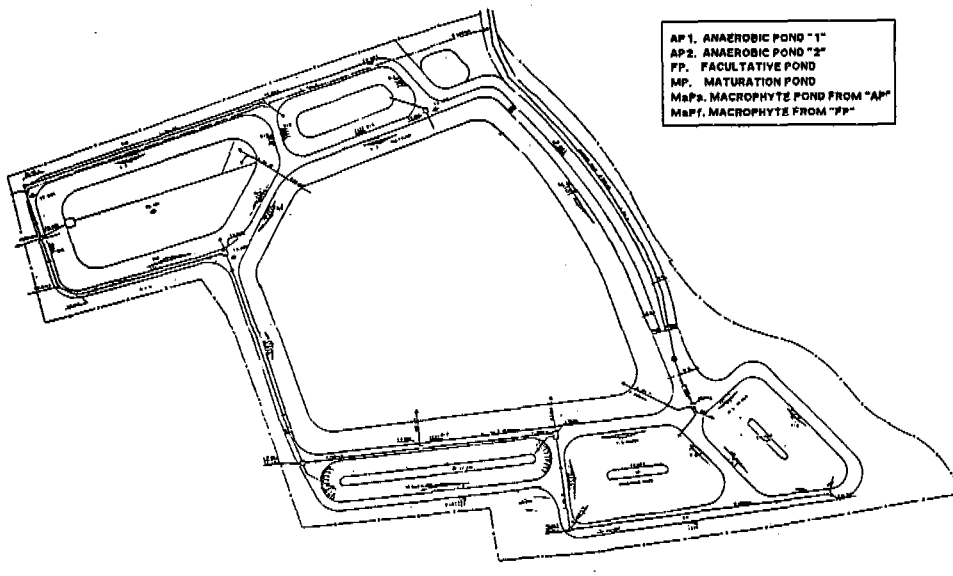
(b) El Nazla, Fayoum

El Nazla is a traditional Egyptian village of predominantly adobe houses. The village has household piped water connections, but no adequate wastewater disposal facilities. An expanded sewerage network is being installed in the village and the project has designed, and had got constructed, a sewage treatment system using waste stabilization ponds. This plant is located on non-arable land. Unlike Mit Mazah, which is in the Nile Delta and which has limited land available due to the high fertility of the area, El Nazla is near the desert and land is more easily available for non-agricultural purposes.

El Nazla, in addition, has a relatively low income standard and also lower literacy rates than Mit Mazah. Consequently, the perceived needs differ between the two communities. Women in El Nazla are more interested in income-generating projects than in household waste disposal. Their lower incomes make it more difficult for them to respond to requests for additional contributions towards service expenditures.

Nevertheless, the village women have expressed concern that the functioning of the sewerage network could be affected adversely in the future by the manufacture of small firecrackers at home, which is an extra source of income for many families. In the manufacture of these firecrackers, sand is washed and smaller particles go down the drains tending to block them. This problem has already become evident in the first wastewater sewer in the village which belongs to the mosque and which drains into a nearby wadi. This drain has a long history of blockages. A complete sewerage network risks aggravating the problem. The issue requires both social and technical solutions. Stopping the manufacture of firecrackers will be impossible since it contributes to the family income.

Although village officials expressed dissatisfaction with the solid waste disposal problem and requested a solution to it, many women said that household refuse was not a major issue. Organic waste is used to feed animals or burnt as cooking fuel. This viewpoint is liable to change when the women are exposed to health education.



GENERAL LAYOUT FOR EL-NAZLA SEWAGE TREATMENT PLANT

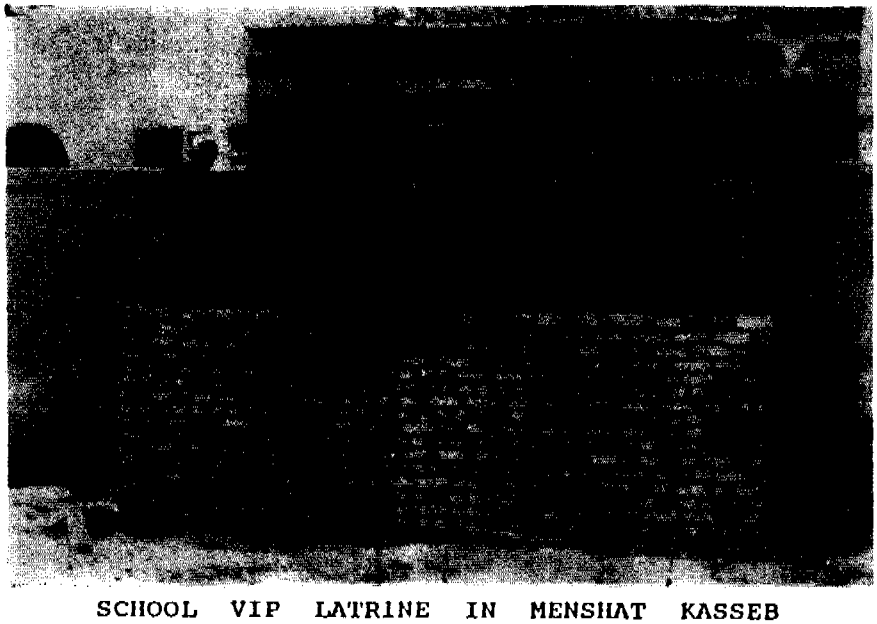
HEALTH EDUCATION SESSION

(c) Menshat Kasseb, Giza

Menshat Kasseb is a small village of about 1350 inhabitants with a relatively high income from vegetable cultivation. Despite this, the community did not enjoy piped water system or sanitation facilities. In order to upgrade the sanitation needs, the project had constructed 20 household and three public VIP latrines in the village.

The first phase of the small-bore sewer system (SBSS) demonstration project, during which 23 latrines were constructed, had the support of the UNDP project related to PROWWESS to explain the purpose of the latrines and motivate the villagers to use them properly. In its second phase now, the project is promoting the introduction of latrines to all households, although there was some initial resistance to accepting the latrines, since the positive impact from their use and experience has led to a demand from the rest of the community for similar services. The project will accordingly construct a total of 150 VIP latrines which will be connected to the SBSS as soon as piped water supply has been introduced in 1993.

This phase is supported by a health awareness programme and the involvement of village women in deciding where to build the latrines for the individual households. The village women were found to be very keen to learn and improve their situation, and this can be attributed, at least partly, to the earlier social programme.



SCHOOL VIP LATRINE IN MENSHAT KASSEB

(d) El Ababda, Aswan

El Ababda is a satellite village on the west bank of the Nile. The project constructed 26 VIP latrines, complemented by a health education programme conducted by the project's national consultant. The community lacked basic hygiene and health knowledge and special attention was given to educate girls and young women as the future builders of families. Lessons were given on the importance of frequent hand-washing before cooking and eating, on the need for personal and child hygiene, and on the health risk to the whole family of not disposing of children's faeces.

The community, on account of its remoteness, was not routinely visited by a physician and, as a result, there were cases of deaths of children because of delayed treatment or lack of awareness of the seriousness of the illness. In response to the request of the village women, the project, in cooperation with local authorities,arranged for a weekly visit of a doctor.

The installation of VIP latrines was enthusiastically welcomed by the local community, especially the women, since they had previously always had to seek a place out of sight for defecation. Word about the usefulness of the latrines has spread to neighbouring villages, some of which have asked the local authorities to make available funds to construct similar latrines in their communities.

EVALUATION

The social aspects and health education activities of the project are still in the implementation phase making it premature to attempt an evaluation of their outputs and impact on local communities. However, initial observations indicate that the health and hygiene education is well accepted by the village women. It is interesting to note the positive and, in many cases, very helpful role that men have played in improving and strengthening health and hygiene awareness in the villages.

The first phase of activities in El Ababda (Aswan) and Menshat Kasseb (Giza) has shown that certain modifications in the social programme should be introduced to increase community participation. This factor was taken into account during the second phase of the project and has to date brought good results.

In all pilot villages, prime importance has been given to the involvement of the local community in all stages of social activities and to the gradual introduction of new concepts in the manner women leaders and other community heads have suggested. This approach has proved useful in overcoming obstacles and minimizing misunderstandings. It increased local support and assistance in health and hygiene education activities without which the project's social programme would not have reached its present positive status among the local authorities and village communities where inputs have been made.

EGYPTIAN VILLAGERS

LINKAGES

The programme on social aspects and health education has established multiple linkages with authorities at both central and local levels. The most important agencies, institutions and authorities that are in regular communication with the social programme are:

Governorates of Daqahliya, Fayoum, Giza and Aswan

Authorities and officials were frequently visited and kept up to date on the project activities within their governorates. Such a two-way communication has helped to facilitate project implementation.

Markaz and Village Units of the Respective Pilot Villages

Authorities and officials are kept directly involved in project implementation on a continuous basis in order to give them a feeling of participation and to use their knowledge and experience of the local environment.

Local Communities

The selected pilot community has been the prime project target. The participation of the villagers in all project phases has been enhanced and strengthened by the social aspects and health education programme.

Organization for the Reconstruction and Development of Egyptian Villages (ORDEV)

As the Government Implementing Agency for the project, ORDEV was kept informed of all project activities.

National Organization for Potable Water and Sanitary Drainage (NOPWASD)

As the focal point for sector information management, the project has been in communication with NOPWASD for statistical feedback.

United Nations Children's Fund (UNICEF), and United Nations Development Programme (UNDP) as co-sponsors.

FUTURE ACTIVITIES

To capitalize on past achievements and present ongoing activities, an Egyptian model village concept, with integrated health and environmental services, will be planned for the future. Lessons learnt from the project will provide the guidelines for building a broader programme. Egyptian villages need, in addition to tailored health and hygiene education of all sections of the local community (women, men and children), schooling in environmental matters. Waste recycling, even at the household level, is desirable with the increasing population and the rising housing density in provincial areas. Waste recycling will be organized both in the household, by traditional and simple methods taught to community members, and at the refuse collection lot, through labour intensive methods in order to be employment generating.

An integrated water, sanitation and solid waste management and recycling system, supported by a health awareness programme will be instituted in different pilot villages. The villages that have been involved in the project so far will be incorporated in the extended project so as to be able to build on the progress achieved to date. Feedback from these villages will show the benefits of the programme, and neighbouring villages will then be attracted. In essence, future activities will mean an expansion of the achievements of the present project in both their range of community activity and geographical scope.

MEMBERS OF THE HEALTH TRAINING GROUP

REFERENCES

Project Reports

1- Khattab, Hind. Manual on Methodologies Applied in Women's Participation.

2- Abdel Hamid, Nagwa. Developing Hygiene Practices in a Local Community.

3- Ibrahim, B. Social Impact of Village Sanitation Experiments in Egypt.

4- El Safty, Media. Report on Social Survey of the Public Water Taps in Delta and Upper Egypt.

Associated Reports

5- Lane, S. Socio-cultural Aspects Related to Public Water Supply.

6- Report on the National Seminar on Water Technology, January 1991.

Relevant Publications/Documents

7- Achieving success to community water supply and sanitation projects. SEARO Regional Health Papers No.9, WHO, New Delhi, 1984.

8- Women, water and sanitation. WHO, Geneva, 1985.

9- Whyte, A. Guidelines for planning community participation in water supply and sanitation projects. WHO Offset Publication No. 96, Geneva, 1986.

10- Drucker, D. People first, water and sanitation later: community partnership in the International Decade. Unpublished document WHO/CWS/87.3. Geneva. 1987.

11- Pisharoti, K.A. Guide to the integration of health education in environmental health programmes. WHO Offset Publication No. 20. Geneva. 1975.