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COMMISSION OF THE EUROPEAN COMMUNITIES

**THEMATIC EVALUATION ON
THE INTEGRATION OF
WOMEN IN RURAL DEVELOPMENT**

**Report on Field Mission to
the Rural Water Supply Programme,
Swaziland**

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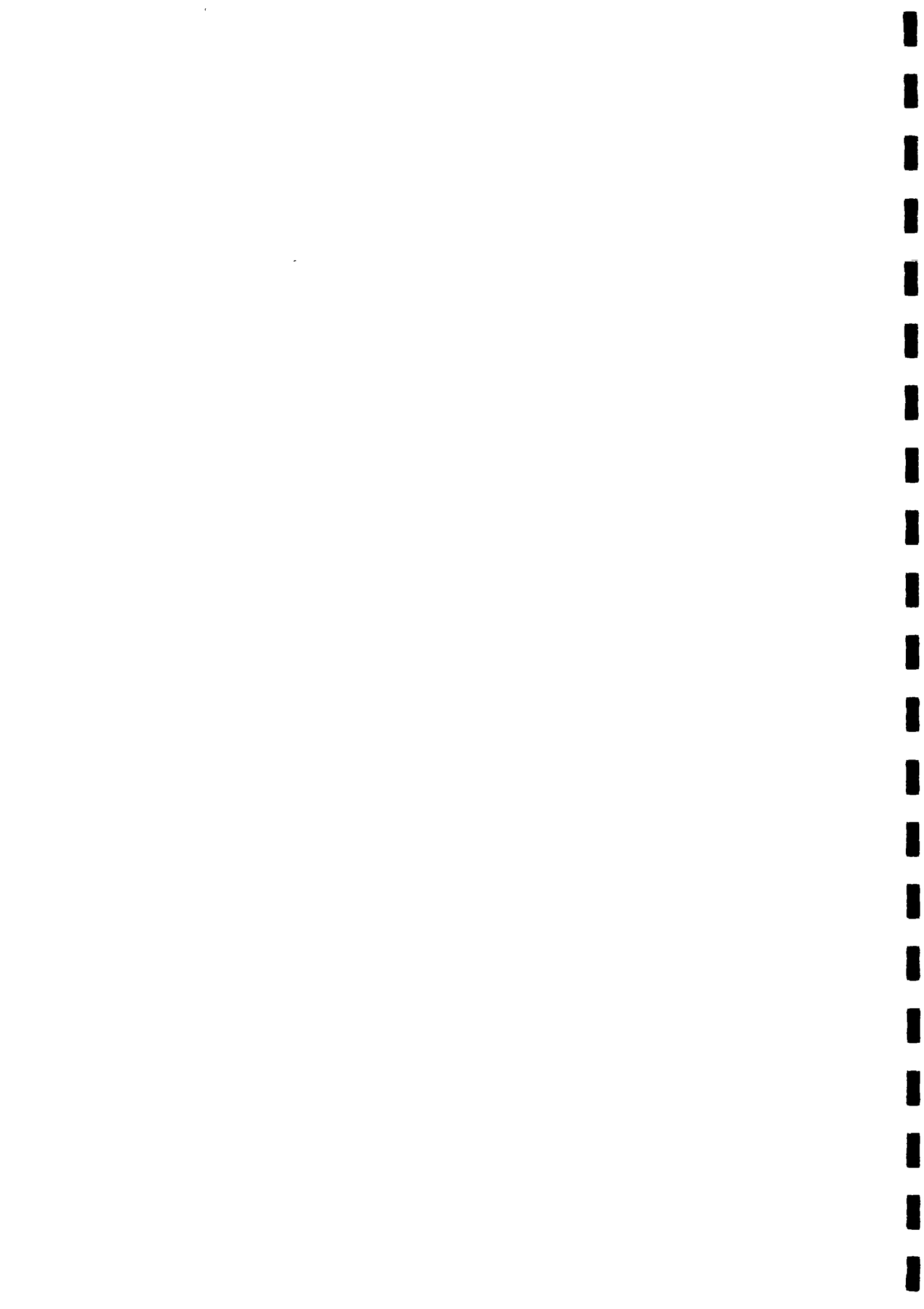
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The author accepts sole responsibility for this report,
drawn up on behalf of the Commission of the
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by Lane F. Hoffman

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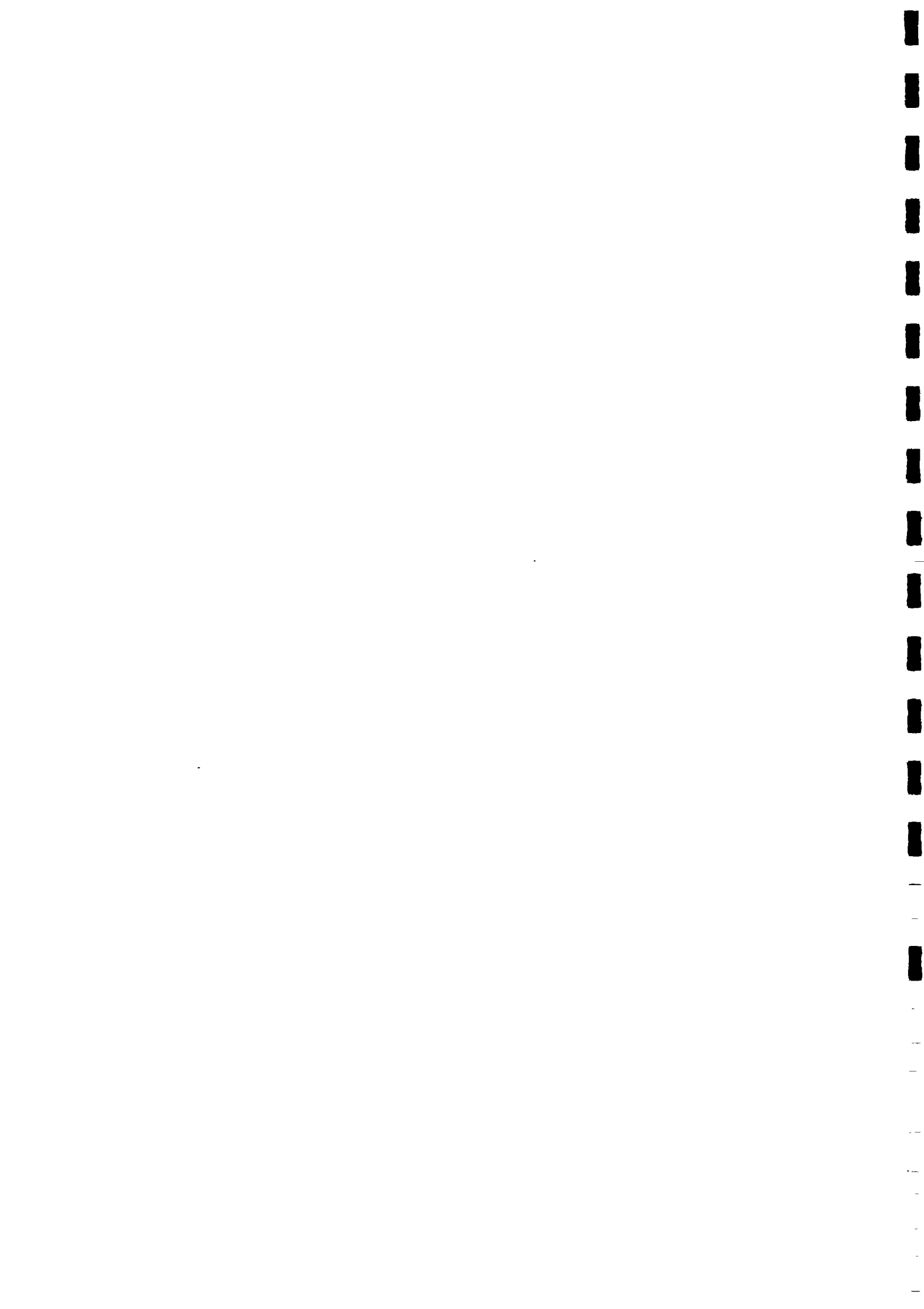
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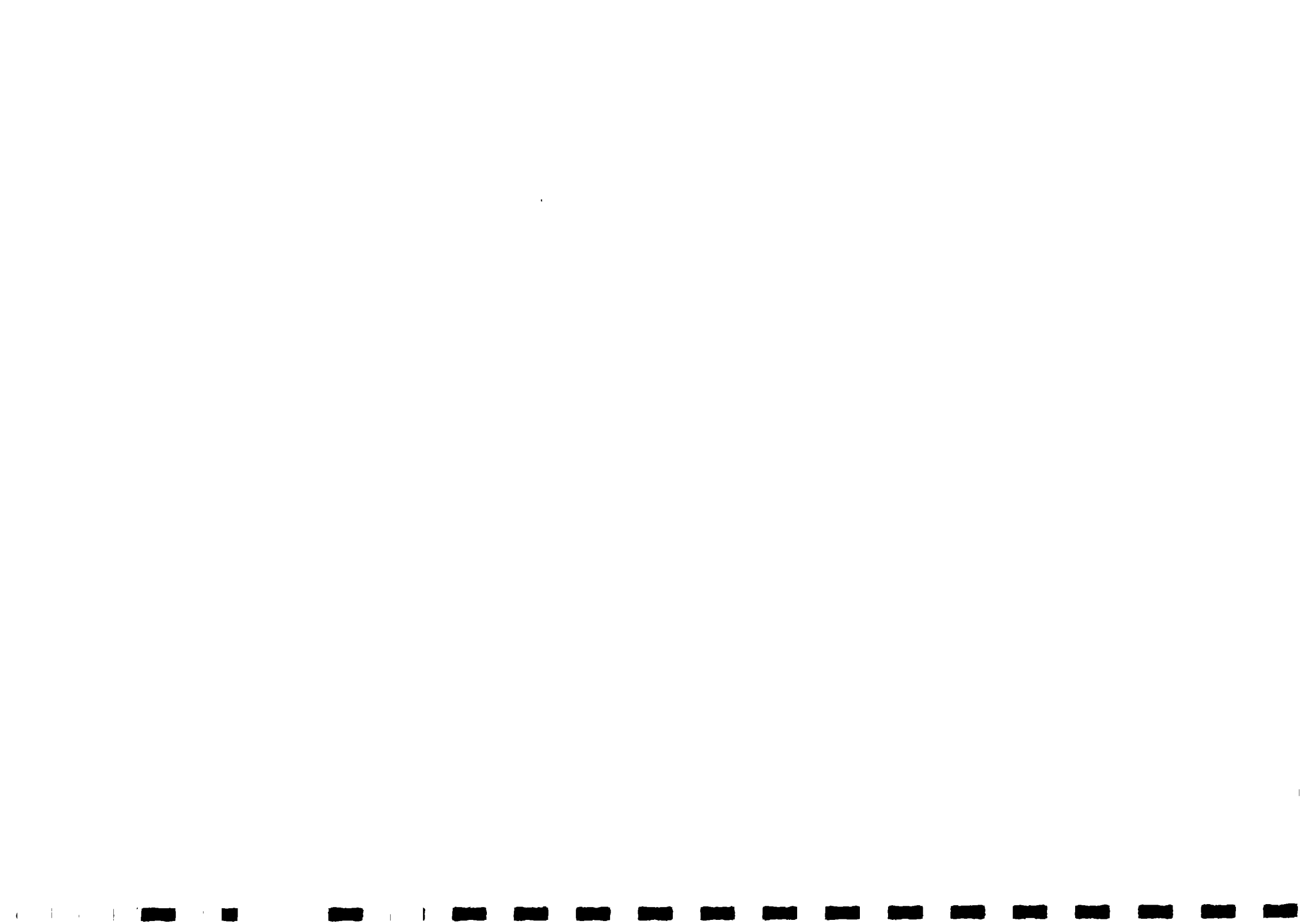
July 1990



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ABBREVIATIONS

EC	-	European Communities
EDF	-	European Development Fund
EEC	-	European Economic Community
MOAC	-	Ministry of Agriculture and Cooperatives
MOH	-	Ministry of Health
MONR	-	Ministry of Natural Resources, Land Utilization and Energy
NGO	-	Non-governmental organization
O&M	-	Operation and maintenance
ODA	-	Overseas Development Administration
PPP	-	People's Participation Project
RDA	-	Rural Development Area
RDAP	-	Rural Development Areas Programme
RWSB	-	Rural Water Supply Board
SNL	-	Swazi Nation Land
SWAMDP	-	Swaziland Manpower Development Programme
UNDP	-	United Nations Development Programme
USAID	-	United States Agency for International Development
VIP	-	Ventilated improved pit
WID	-	Women and Development

1. SUMMARY

1.1 Short Introduction

The EDF Rural Water Supply Programme in Swaziland is one of the EEC-funded projects selected for the "Thematic Evaluation on the Integration of Women in Rural Development", carried out in order to assess the participation of women in the development process. The aim of this multi-sectoral evaluation is to develop general and sector-specific guidelines for the integration of women in EEC-funded projects. This report concerns the field mission to the Programme, the purpose of which was to evaluate the extent of women's integration in the rural water (and sanitation) project in Swaziland.

The evaluation was carried out by Ms L. Hoffman, Rural Water Supply Sociologist, who was in Swaziland from 23 July to 12 August 1989 and held talks with the staff of the EC Delegation, various national- and district-level government officials, local WID (women and development) experts, bilateral donors, NGOs and community members as well as individual women.

Some 11 communities were visited during the field work, including Lomé II and III project communities as well as communities served under the USAID, ODA and Emanti Esevi projects. Subsequent to the completion of the field work, the findings and preliminary conclusions were presented and discussed at a joint debriefing in Mbabane.

1.1.1 *The Project*

The EDF Rural Water Supply Programme in Swaziland began in 1983 under Lomé II funding as a project to improve the health and living conditions of the rural population. The provision of a safe water supply situated within a reasonable distance of the homesteads is expected to improve the beneficiary rural population's health and increase labour productivity, the latter having a positive effect

on food production and income. The improved water supplies are provided for domestic purposes, i.e. drinking, cooking and food preparation, washing dishes, bathing and laundry.

Women and children are expected to benefit most from the time- and labour-saving opportunity offered by the improved supplies, as they have the main responsibility for water collection.

During the first phase of the Programme, the Lomé II project's components included community development extension activities and the construction of 11 reticulated pipeline/standpipe water schemes. The first phase ended - after extension - in 1988. The second phase, under Lomé III funding, which is currently in progress began in 1988 and is expected to have a 3.5-year duration.

The Lomé III project aims to provide water schemes to 12 communities, with a total of 18,000 inhabitants, giving them a per capita water consumption of 30 litres/day. The project applies a more integrated approach and combination of components as a means towards its aim of improving health. In addition to the construction of the water schemes, the components include the community self-help construction of ventilated, improved pit (VIP) latrines, community development extension and training of the community members, as well as health education and maintenance activities.

Expatriate technical assistance is also provided to the implementing agency, the Rural Water Supply Board (RWSB), to assist in the coordination of project activities, in particular the synchronization of the social and technical phases of the project, as well as in the coordination of the health education activities and in the provision of training to the community members. Counterpart training is also to be provided to RWSB staff.

The implementation and construction of rural water supplies comes under the responsibility of the RWSB of the Ministry of Natural Resources, Land Utilization and Energy (MONR). The implementation of both Lomé II and III differs from other ongoing water projects in that commercial engineering consultants and contractors

implement the design and construction activities in the EDF-funded rural water projects, with the RWSB responsible for the overall supervision of the projects and the implementation of all other project activities, including the community development, health education and training components.

Community participation and community responsibility for the management, maintenance and recurrent operation and maintenance (O&M) costs are the two essential elements which characterize the first and second phases of the project.

However, in its community development activities, the second phase places a much stronger emphasis than the first on preparing, mobilizing and training the communities and putting into place a community-based management and maintenance system.

1.1.2 Procedure

This evaluation of the Swaziland Rural Water Supply Programme concentrates on the various phases of the project cycle in examining:

- the community needs assessment
- the community development, health education and training activities
- community participation during the design and construction of the water schemes
- community participation in maintenance activities
- the community-based management and maintenance system.

The following questions arose at the following stages of the project:

During project planning and design:

- what is the relation between the project's strategy, resources and activities and its objectives?
- does the project design reflect women's important role in water supply and sanitation and identify women as a target group?

- what is the relation between the project objectives and the activities of women?
- have affordability studies specifically directed at women been carried out?

During project implementation:

- were women consulted as to their water needs and uses?
- did women participate in decision-making for the design of supplies?
- what was the level of women's participation in community development and training activities?
- what was the level of women's participation in the management and maintenance of supplies?
- what was the level of women's financial participation in the recurrent maintenance costs?
- does the effective involvement and participation of women in the design, management and maintenance of the supplies:
 - . lead to an increased and correct usage of the supplies?
 - . improve the community's capacity to manage and maintain the supplies?
 - . lead to a greater reliability of the supplies and a better rate of functioning?
 - . lead to a greater level of sustainability?

Two questions are central to the evaluation: are women integrated in all project activities and what are the consequences of the (non-)integration of women for project efficiency and effectiveness? In addition, an assessment is made of the project's effects upon women and the community in general.

The actual project evaluation is preceded by an overview of the situation of women in Swaziland with special emphasis on the position of women and female-headed households in the rural areas.

1.2 Summary of Findings and Conclusions

1.2.1 *Planning and Design of Lomé II and III Projects*

In comparison with the Lomé II project, a marked improvement can be seen in the planning and design of the Lomé III project.

Aiming for a reduction of water-related diseases and a general improvement in the rural population's health and living conditions, the Lomé II project activities deal mainly with the installation of the water supplies, and the project's budget deals with the people and materials needed to install the new facilities.

The project's objectives and its activities are inconsistent in that it is difficult to leap from the installation of a number of new water schemes to an improvement in the health of the communities without first providing for an effective utilization and sustainability of the water supplies.

The essential role women have to play in reaching these objectives has been overlooked; women have not been identified as a key target clientele of the project's activities and their priorities have not been considered in the project's policy-making.

The design of the Lomé III project reflects a serious attempt to provide for the intermediate objectives of an effective functioning and utilization of installations. The project activities deal with the preparation, organization, education and training of the communities so that they will be well informed, understand their responsibilities, be organized and be competent to assume responsibility for their operation and maintenance tasks, as well as acquire a basic understanding of health which will motivate a hygienic and consistent use of the facilities.

Moreover, the community participation approach, which was very limited in the first phase (Lomé II), now allows for a greater degree of community involvement. However, the project's improved community participation strategy does not provide any safeguard

that women will also participate in activities on a systematic basis throughout the project.

1.2.2 Women's Roles and Needs

Women, who are traditionally responsible for the collection, use and management and maintenance of traditional water sources, have vested interests in the establishment of a safe and reliable water supply and sanitation system. These interests concern their health and that of their families, their productive use of water and waste and the time and energy saved that may be used for other activities. For the women in this project, water is a major priority.

One of the dominant features of Swaziland is the labour migration. The rural areas are, to a large extent, devoid of able-bodied men. Women remain behind and, consequently, the proportion of female-headed households, both de facto and de jure, may go as high as 50%. In many of the households, women are the sole providers for themselves and their children.

The high rate of male labour migration means that women are faced with extra responsibilities. Some 70% of all agricultural work is carried out by women with some assistance from children. The major task of food production also falls upon women, as do the majority of community self-help activities, construction or other activities.

Women are overburdened by their tasks as mothers, household managers, food producers and economic producers of a cash income to cover the family's subsistence. Before the introduction of improved water supplies, a woman's workload amounted to a 16-hour working-day, four hours of which were spent on the arduous task of water collection. Conveniently located water supplies can provide women with a 25% time saving, freeing them to engage in their much needed income-generating activities.

Men and women have separate financial responsibilities, incomes and savings. Women are responsible for paying a large part of the

household expenditures, including those related to water. The most frequently heard complaint of women is their lack of time coupled with their need to generate a cash income.

Several constraints limit a woman's ability to productively generate cash: her lack of direct access to land, her lack of access to credit facilities and outside labour and her lack of access to appropriate skills and extension services.

Another major constraint is the limited supply of water, as a large number of women's productive income-generating activities, such as vegetable gardening and brewing beer require an accessible water supply. The cash generated from such activities provides women with the means to support the family and, as is often the case, pay the water fees for the recurrent O&M costs.

1.2.3 Project Design and Women as a Target Group

Women have been established as the principal beneficiaries of the improved supplies, which will alleviate the time-consuming burden of water collection. However, the Lomé II and III projects have not acknowledged women's role in the project as independent economic producers and co-funders of the O&M costs, or as partners in the decision-making and in community management and maintenance of the installations.

The implicit assumption underlying both projects is that cost recovery and all O&M costs would be the male household head's responsibility. This assumption has acted as a constraint to project planners and management carrying out affordability studies to determine who within a household would pay the water fees and whether they had sufficient income to do so, particularly the female household heads.

Consequently, women were not acknowledged as a separate target group with their own interests and needs in generating cash to pay the water fees. The project has been designed to provide women with water to carry out their domestic tasks as housewives and

mothers, but not to use for economic purposes, which women need in their role as generators of cash to pay for the water fees.

1.2.4 Women's Participation During Implementation

During the initial stages of Phase I, women's participation in project activities was rather limited. Women were scarcely involved in the planning and design of the water schemes and were greatly under-represented in the water committees which decide on water-use regulations and tariffs, hours of operation of public standpipes, etc.

Thus, during Phase I women have, to a large extent, been displaced from their traditional role as water managers, responsible for key decisions regarding water. The RWSB technical design criteria and water-use policy precluded women from being consulted as to their water needs. The use of commercial consultants and contractors precluded women from collaborating in the design and siting decisions.

A socio-cultural bias towards men in decision-making and technical functions, combined with the selection process applied to select the community water committees did not favour women's participation in the community-based management and maintenance system.

The community participation approach and the limited amount of time the community development workers had to organize the communities were also contributing factors which favoured male predominance during Lomé II.

One area, however, where there has been a high level of women's participation - often higher than that of the men - is in the financing of the O&M costs. Women were found to be solely responsible for paying the monthly water fees in 40% of the households, while in another 30% they shared this expense with their husbands.

Thus, women account for 70% of the target clientele financing the O&M costs. Of crucial importance for the viability of the water schemes is the fact that some 30% of the households (amongst which female-headed households predominate) cannot afford to pay the monthly water fees.

In the Lomé II communities, there has been a gradual change, and a progressive increase in the level of women's participation in those water committees where the water schemes have been in operation the longest. Some of the communities recognized that their majority male leadership committees were poorly motivated and ineffective in ensuring a reliable operation of the water schemes and called for new elections. Consequently, women hold prominent management and leadership positions in several of the water committees today.

The recent training provided to the communities has also been an important factor in providing women with the confidence and competence to function well in their management positions. Some 50% of the participants attending the training workshops were women. Women's participation in the training has increased the water committees' ability to continue with the management and maintenance of the water schemes once project assistance ends.

Improvements in the design and approach of the Lomé III project are also facilitating women's participation in the community management and maintenance and in the planning and design of the water schemes.

More attention is now given to the preparation, organization and education of the communities and to the training of the water committee members. Attempts are made to involve the communities in the choice of technical equipment by first providing them with the background information so that they can make informed choices. Women are taking an active role in these discussions. However, women's participation is not yet commensurate with their important role in water and sanitation because no active policy has been

adopted to encourage the participation of women on a systematic basis.

1.2.5 *Impact of the Project*

Women themselves perceive the improved water supplies as a major improvement in their lives, contributing to:

- a reduction in their workload and 25% time saving
- the availability of water for personal hygiene and bathing as well as for other domestic tasks
- a reduction in water- (and sanitation)-related diseases affecting their families, particularly the infants and children.

In general, the daily per capita water consumption has increased ~~from~~ from 5-10 litres to 25-30 litres. The principal changes in water-use patterns are that women have a sufficient supply of accessible water to carry out their domestic activities so that they for example no longer have to bathe or do laundry at the river. The availability of water has reduced women's workload by some 25%, giving them more time to rest, carry out other chores and engage in income-generating activities.

These positive benefits are not evenly distributed among the women, however. In an increasing number of communities served with improved supplies, access to the tap is denied to those households who do not pay their monthly water fees. Therefore, during any ~~given~~ given month, 30% of the women derive no benefits from the improved water supplies.

In some of the communities where the majority of the community have difficulty paying the O&M costs, the water committee has restricted overall water consumption. The daily per capita water consumption in these communities is only 5-10 litres. In such cases the ~~project~~ project benefits are severely curtailed.

Moreover, if access to the improved water supply is determined by a household's financial ability to pay the fees, the project may ~~inadvertently~~ inadvertently be increasing the disparity between the "have" and

"have-nots", with the "have-nots" usually being female-headed households.

In terms of the viability of the water schemes, the 25% time saving the majority of the women are now experiencing is of crucial importance, as it is this additional time which permits women, to a large extent, to earn the cash which finances the functioning costs of the water schemes.

However, women's special needs in increasing their income-earning capacities were not taken into account during project planning and design. Hence, the women are not able to use the additional time in the most cost-effective and productive way at present. The income earned by the women is often insufficient to pay for the additional expense of the water. In order to maximize the economic benefits of the additional time and engage in productive activities, women will need access to training, skills, credit lines, extension services and, above all, a convenient supply of water.

The project's present water-use policy is counter-productive to its goal of sustainability, because as long as women are not allowed to use the improved water supply for productive ends, they will have difficulty in financially sustaining the supply.

1.2.6 Consequences of Women's (Non-)Integration on Project Efficiency and Effectiveness

A significant consequence of the non-integration of women as partners in the design and decision-making and in the management and maintenance during Lomé II, is the negative effect this has had on the viability and sustainability of the project.

On the one hand, the lack of women's involvement in the planning and design of the water schemes has resulted in the supplies not fully meeting women's water needs and hence not providing an optimal and effective utilization. On the other hand, the inappropriate siting of the standpipes has resulted in higher operating costs and management problems for the communities. This has

contributed in some cases to the non-functioning of the water schemes and in others to the loss of investments.

The inappropriate siting of some of the standpipes has indirectly contributed to the higher water fees which some of the poorer households, especially the female-headed households, cannot afford. Consequently, the women in these households are excluded from access to the improved water supply.

Women's lack of participation in the community management and decision-making for the water schemes has resulted in the adoption of tariff policies which do not take women's needs into account and are in fact very unfavourable to women. Women's exclusion from the decision-making has thus been counter-productive to the project's effectiveness. In some cases coverage was not achieved, in others women have been obliged to continue using contaminated water sources.

Overall then, there has been a reduction of project benefits as well as an inequitable distribution of benefits to the disadvantage of the poorer households in which the women are the providers.

By contrast, wherever women have participated in the management of the water supplies as partners in the decision-making, their involvement has contributed to the improvement of project efficiency and effectiveness. Women have been instrumental in introducing an effective cost recovery system and financial management system - both essential for the sustainability of the supplies. Women's participation in key management positions within the water committees has strengthened the committees' organizational and problem-solving capacity, contributing to the ability of the committees to function autonomously and be less dependent upon the community development workers.

The strongest argument for the integration of women as partners with the men in the project is one of cost-effectiveness, seeing as the cost of not including women during Lomé II was lower project effectiveness, inefficiency and a low rate of functioning of the

supplies. The inclusion of women as partners with the men in management, operation and maintenance can greatly increase the project's success in achieving its objectives of effective utilization, functioning and sustainability.

1.3 Main Recommendations

1. Project management should explicitly acknowledge the role of women as active partners with the men in the communities in planning and design, decision-making and community management and maintenance, and as co-financers of the O&M costs.
2. An active policy should be adopted to encourage the participation of women throughout the project. The promotion of women's participation should be included in the community development workers' task description.
3. In order to effectively promote women's involvement in project activities, the community development workers will require further training:
 - in the assessment of women's needs
 - in identifying the existing constraints to women's involvement
 - in the methods to promote women's participation.
4. *also see 1.* Affordability studies should be carried out in all Lomé III communities to determine who in the household will be responsible for paying the water fees and whether they have sufficient income to do so.
5. In the interests of the effective functioning and sustainability of the water supplies, the RWSB should make a concerted effort to collaborate with other government agencies, donors and NGOs which are active in the project areas in the provision of the services and inputs necessary to improve the income-earning capacities of those with the most urgent cash needs - the female household heads.

6. It is recommended that the RWSB critically review and re-assess its current water-use policy, so as to enable women to use the water for productive purposes.
7. In order to increase women's participation in particular and participation of the community in general in the planning and design of the water schemes the project should:
 - draw up a protocol defining the design decisions open to community choice
 - prepare a detailed work plan specifying how the software and hardware components will be woven together and who will be responsible for what, at what time and in what place.
8. The training of the committee members and water operators/ attendants must take place before the water supplies are put into operation, so that the community members will be skilled and competent to carry out their management and maintenance responsibilities when the water schemes are handed over to them. Training should be provided to each and every committee member and water operator/attendant. The location, duration and content of the training workshops should be arranged so as to encourage women's full attendance.
9. In order to foster community responsibility and ownership of the supplies, a reciprocal, mutually-binding contract specifying maintenance and repair responsibilities should be signed by the community and the RWSB at the handing-over ceremony. Women's prominent role in water supply should be strengthened and given public recognition by placing women in the centre of attention at the public ceremony.
10. In order to improve project efficiency and effectiveness, a monitoring and evaluation system should be implemented. This can serve as a tool to monitor project progress and make necessary adjustments, to monitor women's participation and its effect upon the achievement of the project's goals, and to assess the effects of the project on the women and men.

11. A female national coordinator/advisor should be appointed to the RWSB to provide institutional strengthening and the assistance required in the implementation of Lomé III to:
 - promote women's and community participation
 - coordinate the training of communities and the inputs and delivery of services needed to improve women's income-earning capacities
 - implement a monitoring system.

12. Short-term (three-month) female technical assistance is required to assist the RWSB and provide backstopping and on-the-job training to the female coordinator in carrying out her tasks.

2. INTRODUCTION

2.1 Purpose and Proceedings of the Evaluation

The development aid of the European Community attempts to enhance the participation of women in the development process. A resolution stipulating the integration of women in EDF projects was accepted by the European Community Council of Ministers and endorsed by all ACP countries in 1982. Six years after the declaration of this policy it was deemed timely to assess the results.

A "Thematic Evaluation on the Integration of Women in Rural Development" was launched, comprising the evaluation of a number of EDF projects in different African ACP countries. The thematic evaluation, carried out by BMB/FEMCONSULT, concentrates on the role of women in the sectors of agriculture, livestock, rural water supply and forestry, and aims to produce a set of general and sector-specific recommendations with a view to identifying the most appropriate and effective project strategies and measures for the integration of women. The mission to the Swaziland Rural Water Supply Programme forms part of this comprehensive evaluation exercise.

The purpose of this mission was to evaluate the integration of women in the Rural Water Supply Programme Lomé II and Lomé III projects in Swaziland. The Terms of Reference for the mission are provided in Annex 1.

The goals of the mission were:

- to assess women's participation in the project
- to evaluate whether women's needs and interests have been taken into account in the different phases of the project cycle
- to investigate whether baseline data on the position and role of women have guided project preparation
- on the basis of these data, to assess the effects of the project on the position of women with respect to income-generating

- capacity, access to means of production, workload, social status, decision-making position and living conditions
- to analyse the consequences of (non-)integration of women for the achievement of project goals
 - to assess the appropriateness of project objectives for the enhancement of women's status
 - to recommend adjustments for ongoing projects
 - to formulate conclusions and recommendations for a more systematic involvement of women in EDF-funded projects.

The evaluation was carried out by Ms L. Hoffman, Rural Water Supply Sociologist. The mission in Swaziland was carried out from 23 July to 12 August 1989.

2.2 Methodology

The checklist "Evaluation of the Role of Women in Rural Water Supply and Sanitation Projects" served as a guideline for the collection of data and information (see Annex 2).

Prior to the mission, documentation and literature on the project and the role of women in Swaziland were consulted (see Annex 3) and interviews were held at EEC headquarters in Brussels.

In the field, data were collected from as wide a variety of levels as possible. Interviews and discussions were carried out by the project at national level with staff of the EC Delegation and other EC projects as well as with representatives of various ministries, i.a. the MONR, the Ministry of Health (MOH) and the Ministry of Agriculture and Cooperatives (MOAC) - Home Economics Section - as well as the RWSB and the Department of Community Development.

Discussions were also held with staff of the bilateral donors and NGOs active in the rural water and sanitation sector. Representatives of national women's organizations and NGOs active in WID were also interviewed. Moreover, discussions were held with representatives and credit officers from various national development banks.

Meetings were held at project level with RWSB field staff at the district and community level, and district-level health personnel were met. A visit was also made to a training centre for rural health motivators. (See Annex 4 for a list of the persons met.)

To obtain detailed information on the communities in general and the situation of women at community level in particular, a combination of planned and unplanned meetings were carried out in a sample of eight EDF project communities, located throughout the four districts, which were either already served or going to be served with an improved water supply.

For purposes of comparison, three other communities served with an improved water supply under other bilateral donor and NGO projects were also included in the survey. During the field work, the Consultant was accompanied at various times by RWSB community development extension workers, health inspectors and women representatives from the MONR as well as the RWSB Design Engineer and the EDF technical assistance Project Expert.

The selection of the 11 communities included in the field work, a list of which is provided in Annex 5, was made in conjunction with the RWSB Design Engineer according to the following criteria:

- duration of time the scheme was in operation
- community development considered successful or not
- socio-economic characteristics
- accessibility - distance of community from market and major road
- geographical representativeness.

In addition to group discussions attended by both women and men, sometimes up to 60 people, meetings were also held which were attended only by women.

Impromptu discussions were also carried out with women gathered to wash clothes. To complement the group discussions and meetings, individual interviews were held with women during visits to their homes. Moreover, direct observation was made of water collection and water-use behaviour at the water points. Finally, visits were

made to reservoirs, pumping houses, pipelines and standposts to assess the performance and functioning of the water supplies.

Subsequent to the completion of the field work, the Consultant presented her findings and preliminary conclusions at a joint debriefing, during which feedback was given by the interested parties of the rural water and sanitation sector and WID programmes attending.

2.3 Main Characteristics of the Project

2.3.1 *General Project Characteristics*

The mid-term target of the national rural water supply and sanitation sector is to provide safe water to 50%, and improved sanitation to 33% of the rural population by the end of 1991.

To date only partial coverage has been achieved with 37% of the rural population served with improved water supplies and 15% with improved sanitation.

The EDF Rural Water Supply Programme in Swaziland (Phases I and II) represents EEC support to the national sector in achieving its target.

The overall objective of Phases I and II is to improve the health and living conditions of the rural population. The provision of sufficient and safe water within a reasonable distance of the homesteads, sanitary facilities and health education (Phase II) is expected to improve the beneficiary users' health and increase labour productivity, the latter having a positive effect on food production and income.

Improved water supplies are provided for drinking and for domestic purposes, i.e. cooking, food preparation, washing dishes, bathing and laundry. Women and children are expected to benefit most from

the time- and labour-saving opportunity offered by the project, as they have the main responsibility for water collection.

The first phase of the Programme, the Lomé II Rural Water Supply Project, started in 1983. Originally scheduled to be of three years' duration, the project was extended until 1988 to allow for the completion of all 11 water supply schemes. At project completion the 11 water supply schemes provided 25 litres of water/day to some 17,000 rural inhabitants, situated in 11 communities spread out over the country. The original budget for Phase I was ECU 2.45 million, but actual expenditure has remained below the budgeted amount at ECU 1,392,000.

All but two of the schemes serve communities with schools, while six of the communities have clinics as well. Overall, 31.5% of the population served by the project are school pupils and staff. The project's major emphasis during the first phase was to provide coverage through the construction of rural water schemes.

The water schemes involve the extraction of groundwater through boreholes, using submersible pumps with reticulated gravity pipeline distribution through public standpipes. Five of the schemes are powered by diesel generators, while the remainder are connected to the national electricity grid.

Project activities carried out during Phase I included:

- construction of water supplies
- community development extension.

Phase II of the programme, the Lomé III project, which is currently in progress, began in 1988 and is expected to have a duration of 3.5 years. Some 12 communities spread out over the four administrative regions are to be served with improved water schemes, providing the 18,000 rural inhabitants with a daily per capita consumption of 30 litres of water. Project activities planned and currently under way for Phase II include:

- construction of water supplies
- self-help community construction of VIP latrines

- community development extension and training
- health education
- maintenance activities.

The design of Lomé III, the second phase, reflects a more integrated approach to improving health in that its project components include water supplies and community self-help constructed sanitation facilities as well as health education. In addition, a major emphasis is placed upon the institutional and human resource development of the RWSB in the form of technical assistance and counterpart staff training. Training will also be provided to the 12 communities served.

The budget of ECU 2.6 million has been allocated for:

- the drilling of 30 boreholes
- the construction of 12 reticulated pipeline water schemes
- ventilated, improved latrine supplies for 2,400 latrines
- technical assistance (3.5 years)
- counterpart training for RWSB staff
- local training seminars and external conferences for RWSB staff
- training courses for 12 communities in management, operation and maintenance
- the preparation of health education visual aids
- the engineering consultants' contract
- contractors for construction work.

The project will be carried out over three implementation years with the first activities already under way in the Hhohho region. To date, 16 potential communities have been identified by the RWSB, but ultimately only 12 will be included in the final selection.

The implementation and construction of rural water supply schemes falls under the responsibility of the RWSB, an agency of the MONR. During both Phase I and II, however, the RWSB has been previously committed to other donor-funded projects and has not had the construction capacity to implement the EDF-funded water schemes by direct labour.

Therefore, the implementation of the Lomé II and III projects differs from the other donor water supply projects in that special arrangements have been made for the EDF to fund commercial engineering consultants for the design, tendering and supervision of the water schemes as well as borehole drilling contracts and commercial construction work contracts.

Nevertheless, the overall executing and supervisory agency for the project is the RWSB. The selection of communities, the siting of boreholes, community mobilization and training, the supervision of sanitation works and technical aspects of the maintenance of the water schemes all fall under the RWSB's responsibility.

During Phase I, an RWSB engineer supervised the project and coordinated its implementation. However, during Phase II the Project Expert (technical assistance) is to assist the RWSB in performing these tasks. He is also to assist in strengthening the RWSB through counterpart staff training in the installation of a computerized data base for water supply activities and an accounting system.

The tasks of the Project Expert also include managing the project's imprest account and providing assistance in carrying out the training workshops for the community members.

The activities of the RWSB are carried out from the construction/maintenance depots, located in each of the country's four administrative regions. Maintenance activities which were centralized under Phase I will now be decentralized under the current reorganization plans which will create the separate maintenance units within each district.

All community development extension activities are carried out by the RWSB's community development staff. During the first phase the community development field staff was limited to two workers. However, the staff has recently been enlarged to allow for one community development worker to be based in each of the four districts, so that a larger field staff of four will be able to

implement the community development extension activities during Phase II.

In addition, these four staff, assisted by the Project Expert, are also responsible for training the communities in the management, operation and maintenance of the supplies. The community development workers initially received training in community participation techniques. More recently, however, in the context of another donor project, they have been provided with follow-up skills upgrading in community organization techniques, communication skills, problem-solving and financial accountability/water fee collection methods.

The mechanical technicians from each of the RWSB district maintenance units are to provide technical training to the community's water operators and attendants in the operation of the water schemes and simple maintenance and repairs.

It should be pointed out that Phase I did not include a budget for such community training activities. As the RWSB did not have adequate finances to fund such training itself, during the Lomé II project the communities did not receive management, operation and maintenance training until 1989.

Health education linked to sanitation works, a new activity implemented in the second phase, falls under the responsibility of the Health Inspectorate of the MOH.

Liaison with the RWSB is accomplished through the Public Health Unit, which has been set up in coordination with the MOH. Regional health inspectors are directly involved in the community development meetings.

The Health Education Programme includes information on water- and sanitation-related diseases, hygiene education and proper use of water supply and sanitation systems. Health education materials are prepared by the Health Education Centre of the MOH.

2.3.2 Maintenance System

The maintenance requirements of reticulated pipeline/standpipe water schemes consist of:

- paying electricity or diesel-fuel bills (operating costs), minor repairs such as broken taps and valves, and cleaning intakes and drains, etc.
- major repairs such as pipeline, generator and pump breakages, pump control and electrical equipment, replacement of parts and equipment, preventive maintenance and servicing of equipment.

The maintenance and repair of the water supply schemes are the joint responsibility of the RWSB (for the major repairs and replacement of equipment - a service that has been provided free of charge to date) and the community (for operation, minor repairs and simple maintenance). The communities are responsible for paying all recurrent O&M costs themselves.

Community responsibility for the management, operation and maintenance of the water scheme is an underlying principle of all RWSB rural water projects, including Lomé II and III. Hence, one of the project's goals is to assist the communities in putting into place a viable community-based management and maintenance system as well as a community financing scheme to cover the recurrent O&M costs.

Therefore, communities must establish a special fund to meet these costs. The amount to be collected by the community's water committee treasurer is decided on the basis of the number of homesteads and the anticipated running costs of the water scheme. The RWSB estimates E 2 (ECU 1) to be the average monthly contribution per homestead in existing schemes.

With an average of 100 homesteads per scheme, this contribution is expected to cover a community's annual O&M costs, the anticipated level of which is set out in the following table.

Item	Anticipated Annual Cost per Scheme	
	ECU	E
Electricity or diesel-fuel bills	650 - 850	1,430 - 1,870
Minor repairs	250 - 400	550 - 880
Total	900 - 1,250	1,980 - 2,750

To date, the RWSB has provided its maintenance and repair service free of charge to the communities. Repair calls are received either by the District Community Development Officer or the Maintenance Supervisor of the central depot who in turn assigns his staff to attend to the reported problem. However, once the re-organization and decentralization of the maintenance structure takes place, this repair service will be carried out from the district depots.

An additional task of the mechanical technicians based at the district depots will be to train the community-selected water supply attendants to carry out simple maintenance and minor repair tasks. As already mentioned, during the Lomé II project this training did not take place, as no funding had been foreseen by the project. This type of training, however, is budgeted for and scheduled during the Lomé III project.

In addition to this training, the communities' water operators are expected to receive on-the-job training in the operation of the equipment of their schemes by working closely with the RWSB crew during the construction phase. However, in order to benefit from such practical, on-the-job experience, there must be a provision for community involvement during construction on a voluntary or paid basis, so that the selected water operators can work alongside the crew.

2.3.3 Project Community Development Approach

Phase I

The implementation of a water project begins with a water supply request from the community. On receipt of the request, the RWSB design team, consisting of the Design Engineer, the Public Health Engineer, the Head Community Development Officer, the District Community Development Officer and the District Construction Clerk of Works makes a preliminary site visit to assess the technical feasibility of the proposed scheme, the existing water supply situation and important health problems related to the unavailability of water and sanitation facilities.

Subsequent to this initial visit by the design team, the District Community Development Officer convenes a meeting with the community leaders to explain the process to be followed and discuss community responsibilities in order to receive assistance from the RWSB/project.

The community is expected to:

- establish a water committee
- participate in the construction of the water schemes (voluntary labour for trenching and backfilling the pipeline, digging the soakage pit and filling it with stones)
- set up a financial management system to cover the operating costs and minor maintenance
- nominate a member of the community to act as water supply operator/attendant, to be responsible for the operation, maintenance and minor repairs of the water scheme.

The community leaders are expected to transmit this information to the community. Subsequently, a follow-up meeting for the entire community is held at which the water committee is selected by the community and a community member is selected for training as the local operator/attendant.

At this same meeting, a Memorandum of Understanding is signed by the RWSB and a representative of the community (often the chief), which outlines all the aforementioned community responsibilities. In principle, construction of the water supply scheme is only to take place once the community is mobilized, prepared and fully organized and understands and accepts its management and financial responsibilities.

Final project selection of the communities by the RWSB was based upon the feasibility of a water supply source and the community's need in relation to its health/water supply and sanitation situation.

Phase II

The approach applied in Phase II, although similar to that applied during Phase I, contains certain adaptations to allow for putting a community-based management and maintenance system into place.

Subsequent to the initial site visit by the RWSB design team, the District Community Development Officer, accompanied by a regional health inspector or assistant, convenes a meeting with the entire community in order to explain the procedures to be followed and the community participation inputs expected before a community can qualify for project selection and be served by a water scheme.

The approach followed includes a strong emphasis upon securing that the community is prepared and mobilized before the inception of the project. The expected community participation includes:

- formation of a water and sanitation committee, responsible for organizing the community, managing the accounts, operating the systems and arranging minor maintenance;
- establishment of an operating and running costs fund (maintenance fund) containing a minimum initial amount of E 1,000 (ECU 450) and deposited in a bank account. Once the minimum target is met, the community should make monthly contributions on a homestead-to-homestead basis to ensure the operation of the schemes;

- mobilization of the community to construct VIP latrines prior to the implementation of the water project;
- involvement of the community in excavating and backfilling trenches, digging a soakage pit and filling it with stones;
- nomination of three members of the community to act as local water operators/attendants.

At a subsequent meeting the District Community Development Officer returns to the community to assist it in the organization of its water and sanitation committee.

During further preparation meetings, the Health Inspector or Health Assistant returns to the community to carry out water and sanitation health education in order to mobilize the communities to construct the improved latrine facilities, using the materials provided by the project, the ventilation pipes and concrete slabs.

Only when the Community Development Officer and the Health Inspector feel that the community has satisfied the preconditions, is the community preselected. In addition to the identification of an adequate water source, the new criteria the project has adopted in its selection of the communities to be served with an improved water supply during Lomé III are community readiness in:

- electing its water and sanitation committee
- establishing its maintenance fund and depositing the fund in a bank account
- selecting its water operators and attendants
- constructing latrines.

It is important to point out that, as the project will only serve 12 communities in total, only those communities which provide these inputs in the shortest time will be selected to be included in the Lomé III project.

At a later stage, the training of the water and sanitation committee members and the local water operators and attendants takes place.

Upon completion of the water works, the water scheme is handed over to the community by the RWSB at a public ceremony, symbolizing the community's acceptance of its management and maintenance responsibilities.

2.3.4 Evaluation and Baseline Studies

Two general evaluations of Phases I and II have been carried out:

- 1987 Final Evaluation of Lomé II, Appraisal Study for Lomé III by Geo Science Srl of Florence, Italy;
- 1988 Ex-Post Evaluation of Lomé II by the Technical Officer of the EC Delegation in Mbabane, Swaziland.

No baseline data were collected prior to the commencement of Lomé II. While no baseline data were collected from the project area itself during the appraisal of Lomé III, an attempt was made to reconstruct the demographic, health and socio-economic household situation based on government surveys and baseline studies and evaluation reports of other donor-funded water projects in the project area ¹⁾.

However, no actual affordability study in the project area was carried out to determine the viability of the O&M costs to the intended users.

2.4 Information on Project Area

2.4.1 Environment

Swaziland is a geographically diverse country of 17,000 km², consisting of four topographic regions which greatly affect land use, sources of water and health. Elevations in these regions vary

1) Swaziland Rural Homestead Survey, Government of Swaziland, 1978-1979.

Knowledge, Attitudes and Practices of Water and Sanitation in Swaziland, USAID Rural Water-Borne Disease Control Project, 1982-1983.

Baseline Study for Swaziland Rural Water Supplies Project, London, 1978.

Ex-Post Evaluation of Swaziland Rural Water Supplies Project, ODA, London, 1983.

from a minimum of 60 m above sea level in the lowveld to a maximum of 1,830 m in the mountainous highveld.

The lowveld is characterized by high temperatures, low rainfall and bush vegetation. Springs are rare and rivers are polluted and often located at great distances from the homesteads.

In contrast, the highveld is well provided with water, which rises in numerous springs and mountain streams and is generally available near to the homesteads.

The middleveld occurs as a belt occupying the centre of the country at elevations ranging from 330-1,070 m. The annual rainfall in this hilly region ranges from 760-1,140 mm.

The Lubombo escarpment forms a belt 10-20 km wide and nearly 100 km in length in the east of Swaziland along the border with Mozambique. The altitude averages 600 m and the annual rainfall is 635-1,016 mm.

In the highveld, rural water supplies are typically obtained from springs and streams, while in the lowveld they are typically obtained from groundwater which is exploited by means of boreholes. The middleveld uses a combination of these two sources and on the Lubombo escarpment small springs are the common source of water. The prevalence of environmental diseases related to water and faecal contamination is significantly higher in the lowveld than in the highveld.

2.4.2 Project Population

The communities served by the Lomé II and III projects are located throughout the rural areas of the four administrative regions: Hhohho, Manzini, Shisleweni and Lubombo (see map on page v).

The population in 1986 was estimated at 706,000 and the rural population consisted of 470,688 people or 70% of the total population (see Subsection 3.1.2). Dispersed settlement patterns

characterize the rural areas and the village structure is not to be found in Swaziland. The provision of a water supply and basic sanitary facilities remains essentially a problem of serving a dispersed rural population, with strong traditions and leadership structures which must be considered carefully when implementing projects.

3. POSITION OF RURAL WOMEN IN THE PROJECT AREA

3.1 Present Position of Women in the Family and Community

3.1.1 *The Social Organization of Present-Day Swazi Society*

The central features of the social organization are patrilinearity, polygamy and a profound division of labour according to gender. The majority of the Swazi live on a homestead consisting of one or more households. A homestead is a yard with a group of huts and/or houses, a cattle byre and arable fields. The homestead can be regarded as a unit of production, with the various households as units of consumption.

The homesteads are dispersed over the country and vary in size from less than 4 to over 40 people. About 70% of the population is rural, residing on Swazi Nation Land (SNL), with the right to land for residence, subsistence agriculture and grazing:

"Although Swaziland lacks villages in the usual sense of the term, there are clusters of dispersed, extended-family homesteads that have a clear sense of belonging together and coming under the authority of a recognized leader. Homesteads are grouped together in a ward, otherwise known as a community and communities in turn, are grouped together in chiefdoms. Communities with dispersed residence, nevertheless, seem to be at least as organized and mobilized for participatory development as those village-based societies elsewhere in southern Africa." ¹⁾

Female residents outnumber males by a ratio of almost two to one and, consequently, women perform the bulk of the agricultural and domestic labour.

¹⁾ Green and Isley, 1988 (ref. 40, Annex 3): 161-162.

Almost all (97%) rural homesteads attempt to cultivate the staple food, maize, but in an average year only half of them succeed in growing the annual required quantity ¹⁾.

The head of the homestead is ideally a man (the Siswati word for "head of the homestead" has no female form). The widow takes over when the homestead head dies until the heir (always a son) is old enough to succeed his father. A large homestead can sometimes include more than one household: the head man, his wives, his unmarried brothers and sisters, his sons when married, with wife and children, his unmarried daughters and other distant relatives. A small homestead, on the other hand, might just include one adult with a child (children) ²⁾.

Polygamy is on the decline; about one-third of the married women in rural areas and 10-15% of those in urban areas are polygamously married. Also, the role of the polygamous family is changing. Traditionally, the polygamous family lives as an extended family on the homestead, helping each other in the numerous homestead duties. Nowadays, however, new patterns have emerged, with men taking various wives who have different social and economic roles. For example, wife one lives on the original homestead and takes care of the ageing in-laws, wife two lives at the farm where the cattle are kept and wife three lives in town to fulfil social duties related to a "modern" lifestyle ³⁾.

Although urbanization is on the increase, the homestead still maintains its central place in Swazi life. Migration of the mainly male members of the homestead - in the past to the South African mines, but nowadays more to industrial centres within Swaziland - provides some remittances for homestead production, but these can vary considerably, as will be discussed later.

1) de Vletter, 1983: 22; Russel, 1986: 2.

2) de Vletter, 1983.

3) Barendregt and Brouwer, 1985 (ref. 35. Annex 3): 19.

The male head of household may therefore be absent from the homestead due to wage labouring or to his shifting residence between two or more homesteads in a polygamous situation. Most Swazi spend their youth on the homestead and retire to it at a later age.

Cattle are the central feature of economic, social and ritual life. They are not only required to arrange a traditional marriage for the bride price portion in cash; they also function as loan collateral for banks. Cattle, however, are the property of men, although women may have one or two beasts given to them on special occasions; the husband has control over these beasts but does not have the right to dispose of them.

Only about 60% of all homesteads own cattle. The number of cattle ranges from 1-100, but averages 18 per head. Economic differentiation between rural homesteads is therefore apparent, not only in terms of cattle, but also in terms of access to land and to cash through wage labour, and in terms of access to other sources.

A high percentage of the poor homesteads are headed by women. Rural homesteads are not only agricultural enterprises, but can rely on a combination of activities, such as agriculture, wage employment, handicrafts and other activities, or just one single activity ¹⁾.

Traditionally, men take all major decisions on the homestead and supervise all activities. The high rate of migration of men, however, and their absence from the homestead would suggest that this would leave women more room for decision-making. In reality, however, women are not always allowed to fill this "power-vacuum".

Major decisions, for example on crop production, livestock and investments still require the approval of the homestead head. These investment decisions have direct implications for the sustainability of rural water supplies, as they include such

1) Russel. 1986: 4.

decisions as whether the wife will be able to allocate part of the remittances from the men's wage earnings to the homestead's contribution to the community's water supply maintenance fund. Therefore, the duality of Swazi society produces a tension which has a great impact on women, who make up the majority of the rural homestead population.

3.1.2 Population, Labour Migration and the Implications for Rural Women

The national census carried out in 1986 indicated that the total population was 706,000 and that the rural population accounted for 69.6% of this total at 470,688 inhabitants. For the purposes of rural water supply, the rural population consists of the inhabitants of communally held SNL, and does not include the inhabitants of the individual tenure farms or the inhabitants of the company industrial estates.

Provisional data from the 1986 census indicate that there are a total of 64,987 rural homesteads and 75,160 households ¹⁾. It is worth noting that the number of homesteads is smaller than the number of households. This suggests that perhaps 10,000 homesteads (15%) are composed of two households. Most literature and reports recognize a homestead as having 10 members, but the ratio of homesteads to the population in 1986 suggests an average of 7.4 members per homestead.

Two of the major characteristics of the Swazi population are the high fertility rate and high proportion of children and the excess number of females over males. The average number of children per woman is 6.9; a recent USAID study, however, reveals that women in the rural areas have 10-12 children.

In addition, there is an ever-increasing number of teenage girls having children out of "wedlock". Generally, these children are either left at an orphanage or with their maternal grandmothers

1) Summary of Homesteads, Household and Population Composition by Tenure, 1986 (quoted in EEC/EDF Lomé III Rural Water Project, Final Report, 1987).

(12% in rural areas, and 10% in peri-urban areas) ¹⁾. This increases the number of children rural women have to care for and further limits the amount of free time a woman has to devote to productive economic activities.

The proportion of women is higher among the resident *de facto* rural population. The ratio of males to females is 45.6% to 54.4% in the rural areas. This is a direct result of the migration of working-age rural men (wage-earners) to the Republic of South Africa and, more recently, to the industrial and urban areas within Swaziland, and also of the phenomenon of the male household head shifting his place of residence between his different homesteads and his urban residence in a polygamous situation.

The percentage of temporary absentees among the rural population has risen from 4.9% in 1976 to 5.4% in 1986. While this out-migration from the rural areas is not limited to men, the number of male migrant wage-earners going to South Africa or to the industrial and urban areas of Swaziland far exceeds that of female migrants. In 1976, male migrants made up 75% of the total number of "absentees".

The high rate of male labour migration has serious implications for rural women. An FAO/USAID Swaziland Rural Homestead Survey reported that:

- some 35% of all rural households did not have a resident male over the age of 16
- some 75% had at least one absent adult male
- some 38% of the male absentees were away for more than one year.

Labour migration does not affect all regions equally. The low-potential areas have a markedly higher rate of labour migration.

Many migrants are able to return to their homesteads during the planting season. A large number of this group are mine workers who, because of their nine-month labour contracts can return home

¹⁾ USAID, 1989 (ref. 23, Annex 3): 61

to help in ploughing and planting. Many other wage labourers, however, cannot leave their jobs, and their contribution to agricultural work at the homestead becomes limited to weekends and holidays. Still others are daily commuters, especially the members of homesteads located in the vicinity of urban/industrial or agro/industrial areas.

The high rate of male labour migration has had a substantial impact on the women left behind, the de facto female household heads who, during the man's absence, become the farm managers. This raises important issues for rural women regarding:

- the lack of male family labour for agricultural tasks and the solutions to this problem
- the decision-making authority of women over the deployment of resources
- the remittance of earnings and power of control over their utilization (whether the remittances are available or adequate to cover the household's expenses, such as farm maintenance, food, medical costs, education, water fees, etc.).

A demographic picture emerges of an ever-increasing exodus of a large part of the productive segment of the rural population, leaving behind mostly female-headed households. The burden of production within the subsistence agriculture sector falls, for the most part, upon the shoulders of women.

The above-mentioned demographic characteristics will have definite implications for the long-term financial sustainability of rural water supply systems.

3.1.3 *Female-Headed Households*

According to the national income and expenditure survey carried out in 1985, the proportion of female-headed households in Swaziland is 38% ¹⁾.

¹⁾ Government of Swaziland, National Income and Expenditure Survey, 1985 (quoted in Ginindza, 1989 - ref. 39, Annex 3: 24).

A closer look at the survey figures indicates that the vast majority (89%) of the country's households headed by women are situated in the rural areas. Some 53% of the 75,160 rural households are headed by women ¹⁾.

This proportion is not surprising when one considers the high rate of male labour migration and absentee males. The total proportion of de facto female-headed households in which the husband is absent is 30-35%, and approximately 23% are de jure female-headed in which the female head is either unmarried/an unmarried mother, divorced, separated or widowed.

3.1.4 Women's Legal Status, Legal Capacity and Economic Rights

In present-day Swazi society women are legally considered minors, subordinated to the control of men. This situation has resulted from the combined influence of the marriage laws in the Roman Dutch law and in customary law and also the Christian religion's teachings, which propound the subordination of women to men. Together, these ideas reinforce the present status of women being dependent upon men.

Two different judicial systems coexist side by side today: the traditional Swazi customary law and the Roman Dutch law. In customary law, traditional values are emphasized and the female's legal position is based upon her traditional role as wife, child-bearer, food producer and household manager.

Although Roman Dutch law puts forward general notions such as individual choice, freedom of control and individual property rights, at the same time it specifically accords women the status of minors, thereby denying them, for the most part, any individual choice, freedom of control or property rights. Often it is not clear which law has to be applied to a particular case.

¹⁾ Government of Swaziland, National Income and Expenditure Survey, 1985 (quoted in Ginindza, 1989 - ref. 39, Annex 3: 24).

Marriage according to customary law is potentially polygamous, with the husband having a great deal of control over his wife's (wives') life (lives), covering such matters as travelling, clothing and employment. Most property, particularly land and cattle, belongs to the husband, but women can pass on such minor items as household utensils.

A wife's earnings and any property she might acquire through her own efforts are in principle hers. This custom, however, originates from a time when the economic possibilities which exist today were absent for women.

Customary law is not clear as to what women's rights are, and this brings women a lot of hardship with regard to property. The husband can take her pay-cheque or property, or when he dies, his family can. Customary courts do not offer women protection when such things happen ¹⁾.

A Swazi couple can marry according to either customary law, or Roman Dutch law, or both. Especially the latter provides a possible trap for women. Under Roman Dutch law, property rights are more clear, although not in favour of the wife, as a woman has the status of a minor under parental guardianship to the husband or to a male member of her family (father or brother).

The husband's marital power accorded to him by the Roman Dutch law is of crucial importance to married women with regard to development. The husband has power over the property of his wife. He administers their joint estate if the marriage is in community of property or out of community of property and marital power is not excluded. In such cases the wife cannot make loans without the husband's consent or be the sole owner of the business. She cannot freely use wealth or property as collateral either. She cannot acquire property as an individual or even obtain a travel document or a passport without her husband's consent.

¹⁾ Armstrong and Nhlapo, 1985: 15-30 (quoted in van Driel, 1987 - ref. 37, Annex 3).

This law, therefore, places women in a position of perpetual minority and is a major constraint to their ability to obtain loans from financial institutions for business undertakings. The lack of title to property and other assets which can be used as collateral when applying for loans from financial institutions keeps women from getting sufficient working capital.

Some banks, however, have special arrangements for giving loans to working married women who have their salary directly deposited in their bank account. The loan repayment installments are automatically deducted from their salary. Such arrangements, however, exclude those women who do not have savings accounts or who do not work in wage employment.

Many men claim that, because they paid a bride price, they are entitled to any wealth the wife accumulates. The husband gives a beast (beasts) to his wife's parents in order to establish his right to control her earnings ¹⁾.

In the case of divorce, there are many problems, such as: who gets custody over the children, who has to maintain them, is the divorce legal according to customary law, etc. Under customary law, only a husband can apply for a divorce on grounds of his wife's adultery, while under Roman Dutch law both husband and wife can apply on grounds of adultery and malicious desertion. As a result, women can be divorced according to one law, but not according to the other, with all its legal consequences ²⁾.

Apart from property rights, maintenance and child support are the second central problem for women. To overcome the problems created by the dual judicial system, a general law was passed in 1970, overriding both laws in maintenance matters. This Maintenance Act does not differentiate between child support and support for husband or wife. In most cases women use the Act to obtain child support from the fathers of their children.

1) Armstrong and Nhlapo, 1985: 30-42 (quoted in van Driel, 1987 - ref. 37, Annex 3).

2) Ibid.

Due to defects in the Act itself and the duality of cultures, the Act does not work as it should. Women's ignorance of the legal possibilities, the reluctance of male officials to apply the Act against other men, general cultural unwillingness to take family matters to court and the preference of men for the traditional way of settling matters within the extended family are probably the more explicit reasons for the malfunctioning of the Maintenance Act ¹⁾.

The steadily increasing incidence of births outside marriage and the very high birth-rate suggest an evasion on the part of some women of the traditional control of men over women through the bride price and marriage. A growing number of women, however, will probably face severe difficulties in supporting their children. This is already an increasing problem, especially among young female school-leavers who become pregnant.

3.1.5 *Access to Land*

SNL land, communally owned by the Swazi nation and held by the King in trust, is allocated to the heads of households (as a rule a man) by chiefs in each area on a "right of use basis". Upon pledging allegiance to the area chief, each applicant is assigned land for building a homestead and cultivation. The portions designated as pastures are used communally and while each user has the right to cultivate his land, he cannot sell it or use it as security for loans.

For all practical purposes, therefore, land is traditionally controlled by men. Married and unmarried women cannot be allocated land for any purpose without male representation on nation land, because of their legal position of perpetual guardianship. As a rule, therefore, women get access to land through the male head of the household who assigns his wife or the women of the household a plot of land for cultivating food.

¹⁾ Armstrong and Nhlapo, 1985: 30-42 (quoted in van Driel, 1987 - ref. 37, Annex 3).

After the death of the male household head, it is the eldest son, not the wife, who inherits the land. Under special circumstances, especially among the female headed households, some women are able to get access to land in their own right by applying to the chief via the representation of a male relative.

In a survey of a rural area in the middleveld of Swaziland, it was found that in 1974, 22.7% of those who had right of usage of land were women. Of these, about two-thirds were from female-headed households and the remainder were wives of the household heads ¹⁾.

Married women cannot purchase property on SNL without their husband's consent, but unmarried women can. For applications to set up small businesses on SNL, Swazi Commercial Amadoa, which controls the setting up of such businesses, requires evidence of sufficient working capital.

As the control of SNL by men is the main basis of power remaining to them, it is doubtful whether they will relinquish it. This poses a problem for women who want to establish small businesses in rural areas. Traditional and government authorities need to be made aware of the negative consequences of this law on economic development, in particular because the above-mentioned legal constraints hinder the majority of the population in the rural areas, namely the women, from fully contributing to economic and rural development.

3.1.6 Women in Agriculture

Over 70% of the population live in the rural areas, and despite the prevalence of wage labour among the homestead members, the rural population, including the wage labourers, depend on land for the production of at least part of its subsistence needs. In recognition of these facts, the Rural Development Areas Programme (RDAP) was set up with a view to reorganizing land-use patterns, providing

¹⁾ Allen, C.J. (quoted in Tabibian, 1985 - ref. 60, Annex 3).

adequate infrastructure on SNL and supplying inputs and extension services.

Preference was given to areas with high agricultural potential and to "progressive farmers" who, because of the better resources available to them, could afford positive attitudes towards new agricultural methods.

This division of the RDAP into two categories: "intensive" and "low" input has, however, resulted in further increasing the economic gap between the various population groups.

Of particular importance to women, are the assumptions underlying the design of the rural development programmes and how they affect women. In an effort to slow down the rate of labour migration from the rural areas, a policy of agricultural development was adopted. Agricultural commercialization was introduced to raise the farmers' income levels and, at the same time, create new job opportunities for the rest of the rural population.

An important factor, nevertheless, which was overlooked in the implementation of this policy was that families may have different income levels and different levels of access to resources. So while those with better resources could benefit from the new agricultural policies and opportunities, those with fewer means and more need for assistance lagged behind ¹⁾.

The current rural development policy ignores the separation of resources and roles of husbands and wives and assumes that the increase in men's income is enjoyed as much by their wives and children as by the men themselves.

The next assumption which particularly affects women is that the farmers were all men. This was despite the fact that in Swaziland men only contribute one-third to the total farm work and over 20% of homesteads are headed by women (de jure) while women are de

¹⁾ Tabibian, 1985 (ref. 60, Annex 3): 127.

facto heads of another 30% of the households. Based on this assumption, the input services and agricultural extension services have been aimed at men and not at women, who are in fact responsible for the family food production.

The present pattern in the division of agricultural labour is that women, with the help of their children, perform two-thirds of the farm work ¹⁾. A woman's labour contribution to agricultural activities depends on the position she has in the household (e.g. daughter-in-law or grandmother) and the access of a household within a homestead to land, labour and capital. These factors determine to what extent agriculture is undertaken and what the contribution of women will be.

Women's major responsibility and central role as feeder of the family is growing the family's food. Women do almost half the work necessary for maize production. Men's contribution in this respect is only half that of women. In cultivating beans, another staple food, women do 72% of work, men 13% and children 15%.

Moreover, women set up vegetable gardens or raise chickens and goats to supplement the family food. Men usually have very little or no share in the labour necessary for these gardens or for raising smaller animals. If the products are sold, the proceeds belong to the women.

Women's agricultural activities are, naturally, more intensive in the female-headed households. Here, the part of the work usually done by men is carried out either by the women themselves, or by hired labour, if possible.

The following table, based on a study carried out by the Government of Swaziland, underlines the high degree of women's involvement in agriculture.

1) The World Bank, 1977; USAID, 1981 (quoted in Tabibian, 1985 - ref. 60, Annex 3).

Persons Primarily Responsible for Different
Agricultural Activities
(%)

Type of Activity	Women	Husband	Children	Relatives
Preparing land	34.7	54.6	9.2	1.5
Fertilizing	39.7	47.2	10.6	2.5
Ploughing	24.4	61.9	12.7	1.0
Planting	52.7	35.8	7.8	3.7
Hoeing	88.9	1.9	3.8	5.8
Weeding	91.0	-	3.8	5.2
Harvesting	92.4	1.3	0.4	5.9
Sorting and storing	88.7	6.0	1.0	4.3
Preservation of food	96.4	-	-	3.6
Looking after sheep and goats	47.3	21.8	27.3	-
Going to the cattle dip	34.6	30.7	33.9	0.8

Source: Government of Swaziland, Rural Homestead Survey, 1978-1979: 10.

As a rule, women and children do the time-consuming jobs such as hoeing and weeding, while men are responsible for activities requiring physical strength but which are less time-consuming, i.e. ploughing. With the introduction of the tractor (1970s), many of the male wage-earners who were absent during the ploughing season sent home remittances to hire tractors and operators.

De Vletter reports that by 1980 about 40% of the rural homesteads used tractors, and in some Rural Development Areas (RDAs) the figure was as high as 80%. In contrast, as the following table indicates, only 18% of the women who considered themselves primarily responsible for ploughing used hired tractors (a percentage much lower than the national average). The reason given by these women for not hiring a tractor was their lack of cash. For these women hiring a tractor also meant hiring an operator.

Some of the women who participated in the sample study in fact suggested that women should be trained to operate tractors.

Source of Labour Assistance to Women
Who Are Primarily Responsible for Tasks
(%)*

Type of Activity	Husband	Children	Relatives	Hired/ Friends' Labour
Preparing land	19.6	37.3	35.4	9.8
Fertilizing	25.3	47.4	22.1	5.3
Ploughing	21.1	35.1	26.3	17.5
Planting	30.4	37.8	25.9	3.9
Hoeing	22.6	40.9	29.6	6.9
Weeding	12.6	40.8	41.7	4.3
Harvesting	23.4	48.1	20.7	3.9
Sorting and storing	42.9	23.5	30.3	3.4
Preservation of food	3.2	35.4	61.3	0.1

* These percentages do not represent share of labour input, but frequency of any assistance coming from different people.

Source: Government of Swaziland, Rural Homestead Survey, 1978-1979: 12.

The figures in the two preceding tables indicate women's heavy workload. In addition to participation in the production of food for home consumption, women also contribute considerably to the labour needed for cash crop production. They do 40% of the work in cotton cultivation as opposed to 22% for men, while in growing tobacco, the share of women's work is 58% and men's 26%. Taking into account "that the labour requirements for planting cotton are twice and those of tobacco are six times those of the staple crops of maize and sorghum", one can see how the transition from

subsistence to cash cropping has increased women's workload on the farm ¹⁾.

With regard to the nutritional aspects of cash cropping, a study of the cotton growers in the south of Swaziland shows that the acreage under food crops, including staples was reduced on many farms.

Thus, while the shift to commercial agriculture may be economically rational, studies have shown it has an adverse effect on the nutritional status of the family. Furthermore, the income from cash crops belongs exclusively to men, who usually prefer to invest their money in cattle. Consequently, the women have little or no access to this money in order to purchase food and supplement the family's diet. Moreover, women are required to work on their husband's plots as unpaid labourers.

In addition, the higher labour requirements for cash crop production leave women with less time to attend to their vegetable gardens and fulfil their responsibility of food production for the family.

Considering the above factors, a decline in the nutritional status of the rural population would seem inevitable.

3.1.7 The Gender Division of Tasks and Women's Workload

As already discussed in Subsection 3.1.6, women, with the assistance of their children, carry out two-thirds of all agricultural activities. With regard to the division of household tasks between men and women, women have the principal responsibility for cultivating and providing the food to feed the extended family's household members.

Women are also responsible for a multitude of other domestic activities in relation to the household which include food

¹⁾ Funnel, 1982 (quoted in Tabibian, 1985 - ref. 60, Annex 3: 129).

preparation, caring for the children, the sick and the old, cleaning and washing and collecting water and firewood. Some of these tasks are done with the assistance of children. However, with the increase in the number of children attending school, this source of assistance has become limited.

The table below further indicates the division of responsibilities between husband and wife for the domestic chores.

Contribution of Various Family
Members to Household Chores in Rural Areas
(%)

Type of Activity	Women	Husband	Children	Relatives
Cooking	87.5	0.3	4.3	7.9
Washing up	71.8	0.7	21.3	6.2
Cleaning	87.7	-	6.0	6.3
Fetching water	79.6	0.7	15.6	4.1
Washing clothes	90.6	-	5.1	4.3
Gathering grass	95.4	-	0.8	3.8
Gathering wood	84.2	2.1	6.2	7.5
Brewing beer	90.0	-	1.1	8.9
Looking after children	85.7	0.5	5.3	8.5
Plastering walls/floors	95.9	1.5	2.2	0.4
Building and maintenance	15.0	73.8	9.9	1.3

Source: Government of Swaziland/UNICEF, 1978/79 (quoted in Tabibian, 1985 - ref. 60, Annex 3).

As the above table indicates, the only major responsibility of the men regarding household activities is the building and maintenance of the homestead which, traditionally, is a male activity.

Attempts made by the Consultant during the field work to reconstruct the baseline situation of the women in the project area

before the introduction of improved water supplies indicate that the women had on average a 17-18 hour working-day to carry out all their chores. Water collection was one of the most time-consuming tasks, as women usually spent four hours each day walking long distances of up to 4-6 km to collect some 5-10 litres of water per family member. This usually entailed the woman making a trip in the morning and afternoon, carrying an open 20-litre container on her head (in the event of larger households three or four daily trips would be made).

The scarcity of water certainly affected the women being able to carry out the other household chores such as cooking, washing or plastering the walls and floors. According to the Rural Homestead Survey in 1983, "only 10.7% of the homesteads had access to a community standpipe, piped water at home or a cistern; another 3.3% could make use of wells or boreholes" ¹⁾. The rest had to rely on contaminated rivers, streams or springs. Other time-consuming activities in terms of distance are gathering grass for thatching the roof or weaving mats, washing clothes at the riverside and collecting wood for cooking.

Appropriate technology for home improvement (e.g. cheap and effective facilities for storing water and food, drying and grinding food, or cooking) is not yet in use on a widespread basis by rural women ²⁾. Although efforts have been made to introduce these self-constructed labour-saving devices, more commercial technology is available on the market which is more expensive but also more efficient. While some households find the cost of such items prohibitive for their budget, others prefer the modern appliances available for sale from South Africa. Only the construction of cement water storage jars appears to be popular.

1) de Vletter, 1983 (quoted in Tabibian, 1985 - ref 60, Annex 3: 140).

2) The UNDP WID Project includes a village technology unit which teaches the trainees how to construct such labour-saving devices as cement water storage jars, maize storage tanks, solar dryers, mud ovens, and maize grinders. In addition, the SWAMPD-sponsored appropriate technology workshops have also trained rural women in the construction of these devices.

3.1.8 The Gender Division of Financial Responsibilities Within the Household for Household Expenses

Besides their responsibilities for household and agricultural work, women are also expected to finance a large part of the budget for the household's subsistence expenditures. As Swazi women are responsible for all matters pertaining to the home (including domestic food production), this means they are also responsible for paying the major portion of the expenses for the goods and household items they are unable to produce themselves.

Women's primary financial duty is to contribute to the upkeep of the extended family. This includes:

- the provision of food
- clothing
- school fees
- medicine and health care.

In addition to these above-listed household expenses are the water budget costs involved in water collection and storage. These include the cost of the containers for water collection and storage as well as any costs related to the upkeep, operation and maintenance of the water supply source or equipment. These costs, however, are usually minimal when the water supply source is a traditional one.

The husband's financial contribution to these above-mentioned expenses is not an obligation, but takes the form of a gift and depends upon his prerogative.

From the interviews conducted during the field work of this mission, an attempt was made to reconstruct the baseline situation. Husbands and male household members who resided at the homestead or commuted home on a regular basis (internal migrants) usually shared the cost of store-bought purchases or other household subsistence expenses with their wife (wives). A large portion of the husband's or the other males' wage earnings, however, was spent on farm-equipment purchases (or the renting of tractor operators) and was

not necessarily contributed towards covering the household's subsistence costs.

Husbands who were external wage migrants, on the other hand, absent from the homestead for a large part of the year, tended to spend their savings and remittances on investments in cattle and in farm-equipment purchases. Moreover, they tended to remit money very erratically.

This pattern appears to correspond to Palmer's findings (1985), in her study of wage migrants in Swaziland ¹⁾. The husband or male household member always retains the decision-making authority over the allocation of the remittances sent home. Prearranged agreements determine which expenditures the woman is permitted to use the remittance money for.

The majority of the women interviewed in the project area who received remittances or financial assistance from husbands or other relatives for the family's subsistence emphasized the fact that this money took the form of gifts, which were never sufficient to cover all the household's expenses.

Furthermore, due to the unreliability of this income source, the women considered it an absolute necessity that they earned an income themselves over which they had complete control, so that they could be assured of a reliable cash income to pay for the household's subsistence expenses.

If originally women's income-generating activities were carried out in order to earn "soap and salt" money to supplement the homestead's cash income and to purchase the food that the women could not grow themselves, this is no longer the case. The transition from a subsistence to a cash-based economy, coupled with the fact that many women work as unpaid labourers on their husband's cash crop plots, has resulted in many women having less time to produce food for the family. Hence, they are obliged to purchase a large

¹⁾ Palmer, 1985 (ref. 48, Annex 3).

portion of the food for the family's diet - sometimes even the maize. Therefore, their cash needs are such that the women are obliged to earn an income adequate to cover the majority, if not all, of the household's expenditures.

3.1.9 *Women's Income-Earning Capacities and Income*

Rural women's wage employment opportunities in the formal sector have been limited by social and cultural factors. Their limited education has kept many women in rural areas from wage employment, as they have few marketable skills. In spite of the fact that in 1983 the enrolment figures for girls in primary school were higher than those for boys, the high drop-out rate amongst young teenage women is alarming.

Many girls drop out of school because of pregnancy. Very few are able to return to school afterwards, because they have to earn an income to support their children. Consequently, they swell the ranks of women with little education and no skills ¹⁾.

Moreover, young women are usually excluded from technical and vocational training programmes ²⁾.

Thus, rural women's access to employment in the formal sector becomes restricted. These women's options for income generation are particularly limited to either wage employment in agrobusinesses as low-paid seasonal labourers or the informal sector. The majority of rural women turn to the informal sector - to homestead-based, self-employed income-generating activities - not only because of a lack of other opportunities, but also because by being "own-account" workers they have enough flexibility to also perform their multiple responsibilities around the homestead and in their fields.

1) Ginindza, 1989 (ref. 39, Annex 3): 25.

Government of Swaziland, Education Statistics 1979-1983 (quoted in Tabibian, 1985 - ref. 60, Annex 3: 77).

2) Tabibian, 1985 (ref. 60, Annex 3): 144.

The involvement of rural women in income-generating activities, therefore, is, on the one hand, a sign of economic necessity and, on the other hand, an indicator of the lack of other job opportunities.

The income-generating activities women engage in can be divided into two categories: agricultural and non-agricultural in nature.

Women's Income-Earning Capacities in Agricultural Activities

The emphasis in the rural areas on agricultural development in the form of cash cropping has not been to the benefit of rural women. In spite of the fact that women already do 40% of the work in cotton cultivation and 58% of the work in growing tobacco, they work as unpaid labourers on their husband's plots. Hence, all income earned from the cash crops goes exclusively to the men (see Subsection 3.1.7).

With the existing socio-economic barriers, few women, however, can engage in cash cropping on their own. As farmers, many women lack the know-how, equipment, resources and access to services necessary for cash cropping. Women depend on men (husbands, fathers) for access to their most essential means of production: land. Often the land they are allocated is of poor quality or inadequate in acreage to cultivate a cash crop. Access to outside labour and equipment is also a serious constraint for the women, as the majority of them cannot afford to hire labour or a tractor and operator.

Despite the overwhelming evidence on the contribution of Swazi women to agriculture, their access to the resources necessary to improve their productivity has been severely limited. The reason primarily lies with a socio-cultural bias which is male-oriented. As a result, the crucial role of women in agricultural development is neglected and men are assumed to be the only farmers.

Thus, training courses designed to familiarize the farmers with new techniques are organized for and by men only. Agricultural

extension agents attempting to introduce innovations such as fertilizers, improved seed and terracing, direct their attention primarily towards men, and access to loans and cooperatives which is necessary for investments in modern agriculture is mostly limited to men ¹⁾.

Most extension programmes for men have increased the expertise of male farmers, and are primarily economic-oriented, while most of the women's programmes have been primarily concerned with the welfare of the family and have, for the most, ignored women's role in food production.

In addition, women's access to credit and loan facilities is limited by their lack of knowledge of such facilities, lack of collateral or social and cultural limitations (e.g. the need for the man's approval of women's economic activities and his signature on any loan application).

If women's income from agricultural activities does become considerable, there is always the danger that men may decide to take over the activity and take control of the income. This naturally has served as a disincentive for women to engage in or expand cash-cropping, animal-raising, or other farm-related income-generating activities on their own.

If this situation is turned to advantage, it could act as a potential incentive in future for women to engage in agricultural-related income-generating activities on a collective or group basis, whereby women would have greater control over the income earned.

Women's Income-Earning Capacities in Non-Agricultural Activities

Approximately two-thirds of the women on rural homesteads were found to be involved in non-agricultural income-generating activities. Two homestead surveys found that 60% of the women are

¹⁾ Rosen-Prinz, 1978: 6 (quoted in Tabibian - ref. 60, Annex 3: 137).

involved in handicraft production, 42.2% in brewing beer, 11% in selling cooked food, 10.6% in preparing and selling traditional medicine, 7% in selling clothing and 6.2% in trading at markets and roadside stalls ¹⁾.

Amongst the various home-based self-employment activities, thus, handicraft production is the most widely practiced, despite its very low earning potential in comparison to its labour-intensive nature. It represents one of the avenues through which women get access to and control of cash in the expenditure of which they exercise independence.

Vegetable gardening is another popular economic activity women engage in. It expanded considerably in 1981 when the importation of fruits and vegetables from South Africa was banned, because of cholera. In 1981 prices rose by over 400%, making the labour-intensive cultivation economically attractive to those within easy reach of water. Women see vegetable growing as a viable alternative to handicrafts.

The reason more women do not grow vegetables, in the words of one woman, is because "There is not enough water. If there were, I'd prefer growing vegetables to doing handicrafts" ²⁾.

Women's involvement in these activities has been part-time and has had to be fitted in whenever farm work and household chores permitted. The amount of time invested especially fluctuated with the agricultural season and the amount of labour available for agricultural activities. These activities, however, especially handicraft activities, are often combined with other responsibilities at home.

Tabibian, in her study, found that the women interviewed spent four hours per day or 124.5 hours per month on income-generating activities, the equivalent of a full-time job in the employment sector.

1) de Vletter, 1981, 1983 (quoted in Tabibian - ref. 60, Annex 3. 142).

2) Russel, 1985 (ref 58, Annex 3)· 141

These hours are in addition to the time the women spend on their domestic and agricultural responsibilities on the homestead. Women's income-generating activities consist of a complete chain including not only production, but also transportation and marketing ¹⁾.

The degree of women's involvement in these income-generating activities is an indication that women have chosen this field of work as "occupations" and not merely as "hobbies". The amount of time invested in these occupations also shows the degree of women's economic needs; it highlights that the women have urgent cash needs for survival, to support the family and not, as is generally perceived, to earn a little extra "soap and salt" money to supplement the man's contribution to the household's expenses.

The necessity of, and aspiration towards, earning a greater cash income usually become a burden on an already heavy schedule. In order to find the time for the additional activities, many women have had to decrease the amount of time they spent on other activities. As the following table indicates, about 70% of the women in Tabibian's study found it "easier" to cut down on their time spent sleeping, as it would disrupt the household routine the least.

"This choice is, partly, a reflection of men's attitude towards women's involvement in income-generating activities and, partly, an indication of the division of labour within the household" ²⁾.

1) Tabibian, 1985 (ref 60, Annex 3): 204

2) Ibid: 205.

Major Tasks Women Have to Spend Less Time on
in Order to Engage in Income-Generating Activities

Activities	Average (%)
Resting	70
Washing clothes	28
Collecting firewood	24
Child care	22
Cooking	17
Working on the farm	14
Going to clinic	13
Fetching water	13
Vegetable gardening	12

Source: Tabibian, 1985 (ref. 60, Annex 3): 205.

Tabibian's study also reported that the amount of assistance extended by other family members and relations to these women in carrying out household chores had been reduced by 50%. This is due to the exodus of economically-productive young adults to the urban areas as well as the increase in the number of children attending school.

The wide extent to which traditional-type handicraft production is practiced, in spite of its low earning power, is due to a combination of factors: women possess the necessary skills, as they have learned them within the homestead; many of the materials needed to produce the handicrafts - sisal grass, wood, etc. - are natural products which women can gather free of charge; and handicraft production can be carried out at home and combined with other domestic activities.

The production of non-traditional handicrafts, offering a higher earning potential is becoming increasingly popular. A good example is women's local production of water storage jars, adapted to local needs.

The disadvantages and obstacles women face in carrying out traditional handicraft production are multiple, however. Not all handicraft production is based on raw materials; knitting, crocheting and sewing, for example, require a capital investment in materials. For most rural women obtaining such working capital is a major constraint.

Two studies carried out in 1985 and 1986 on women's income-generating activities, reveal that the women interviewed considered an important obstacle to their self-employment schemes to be their lack of capital for purchasing raw materials and the necessary equipment. This was one of the most important factors which forced women to stop working.

The results of one study of 290 women who had participated in an income-generating training course indicate that 87.7% of the women had little or no knowledge of how or where to apply for a loan. Of all those interviewed, only 21% had ever applied for a loan, and half of these were from the UN-funded WID project ^{1) 2)}.

The two major problems facing those who sought loans were the lack of collateral and references. The uncertainty of the business and the fear that they might not be able to repay the loan were important factors prohibiting the women from seeking loans. Family members or relatives (38.7%) closely followed by banks (34.7%) were the two major sources that the women in the study turned to for loans. Only 6.6% of the women had requested a loan from the revolving fund.

A special feature of the WID project's revolving fund is that UNDP has set up a "guarantee fund" at the Swaziland Development Bank, so that the bank does not require collateral from the women loan applicants.

1) Tabibian, 1985 (ref. 60, Annex 3). 225.

2) van Driel, 1987 (ref. 37, Annex 3): 49.

Unfortunately, however, these women are not able to have complete economic independence, as the bank still requires a woman applying for a loan to obtain the signature of her husband or a male relative to "guarantee" her should she default on loan repayment. According to the bank's loan officer, this is because legally, in the event of default of loan repayment, the bank cannot repossess equipment from a minor.

It should be pointed out that only the graduates of the UNDP WID project's training course are eligible to apply for a loan from this revolving fund. When a loan from the project is obtained to purchase, e.g. a sewing machine, a deposit of 10% has to be paid and within one year the whole amount has to be repaid. Van Driel reports that, for a sewing machine, this meant a repayment of E 30-50/month, and for a knitting machine even E 60-100/month, amounts which are out of reach for newcomers to the market. Given the fact that these women had to reinvest the majority of their profits towards the purchase of new materials, it was extremely difficult for them to repay the loan from the income they earned and many could only make the loan repayments with the financial assistance of other family members ¹⁾.

The People's Participation Project (PPP) is another NGO which has set up a guarantee fund, enabling rural women to obtain small-scale loans without collateral through the PPP women's groups. Based on the merits of the group's past history, it can qualify for a loan. Two to three of a group committee's officers are required to sign for a loan. Thus, the group status enables women to get around the legal constraints limiting women's access to credit lines. The experience of several of the PPP groups who have received loans through this scheme has not been completely positive. The women feel that most of their profits have gone to repaying the loans. Moreover, the women feel they were not properly advised by the Swaziland Development Bank's loan officers (the administrators of this loan scheme) when they went to apply for a loan. The women complained that they received little advice as to the feasibility

¹⁾ van Driel, 1987 (ref. 37, Annex 3): 49.

of their planned ventures and insufficient assistance as far as loan repayment was concerned.

An additional line of rural credit open to (female) farmers is the EDF Rural Credit Scheme administered by the Swaziland Development Bank. This fund provides small-scale loans of a minimum of E1,000. However, as the EDF has not set up a guarantee fund, the bank is not able to waive the collateral requirement for female applicants. This is a constraint for women applicants, as they must obtain the signature of their husband or a male relative, thereby limiting their economic independence. Exceptions to this requirement exist for widows and for women who have not married according to customary law. However, as the bank does not keep records of the gender of the loan applicants or beneficiaries, it was not possible to assess how many rural women have taken advantage of this line of credit.

It is worth mentioning that the Swaziland Development Bank has carried out a study which indicates that women are better credit risks than men. In spite of these findings, however, the bank has, to date, made no attempts to facilitate women's access to its loans.

In addition to these above-mentioned credit lines, in many rural women's associations - e.g. Zenzele groups, Rotating Savings, credit associations, etc. - women have formed modest revolving funds out of their group membership fees. The fund is then made available on a rotation basis to the women who need a loan for their income-generating work.

A reconstruction of the baseline situation in the project area before the introduction of the improved water supplies reveals that, while the majority of women engaged in handicraft production, they did not consider it a cost-effective activity. The income earned was low in comparison to the effort and time involved. Factors such as cost and scarcity of materials, low sales price, and lack of customers and nearby marketing network were cited as the causes of the low earning potential. Moreover, a lot of

profits were eaten up by the transportation costs to travel to town to purchase the materials and sell the products at the market. This also meant being absent from home, which for many women conflicted with their child care obligations.

An alternative to selling at the market was spending many hours walking from homestead to homestead to sell the goods. As a partial solution to the marketing problem, a Handicraft Marketing Board was introduced by the Ministry of Commerce. The Board's representatives travel to the various Zenzele groups in the communities and purchase their goods at standardized prices. The products are then resold at the Mantenga Handicrafts Centre near Mbabane.

In addition to buying their products, this marketing system also provides the women's groups with the raw materials at cost. This marketing service thus provides the women's groups with raw materials and buys their products, thereby freeing the women from the need to travel the long distance to procure materials and find a market. At the same time, however, the groups are encouraged to produce a single item, thereby creating a dangerous dependence on this marketing system and on products which may go out of fashion or whose markets may become saturated. Thus, the efficiency and convenience of the marketing system has eliminated, to some extent, producer choice and initiative amongst these Zenzele group members.

Another disadvantage is that this marketing service is only available for those women organized in Zenzele groups, leaving the individual women producers to find their own solution to the problems of procurement of materials and marketing.

The constraints many of these women face as "own-account" workers, in addition to their limited access to marketing outlets and credit and loan facilities, are their lack of business skills and inability to carry out simple feasibility studies of the potential profitability of a planned income-generating activity.

Women's Income and Expenditures

Although women were reported to spend some 124 hours/month on income-generating activities, the income earned was relatively low. Vletter reports in 1979 that, excluding beer brewing and the sale of traditional medicine (which provide incomes much higher than those of other activities), the average annual income from non-agricultural, homestead-based income-generating activities amounted to E 133.60 ¹⁾.

In 1985, Tabibian reported that, of the 290 rural women interviewed who had taken part in various training courses to improve their skills, 80% earned less than E 50/month ²⁾. Van Driel, in her study on women graduates of the UNDP WID training courses, found that the average monthly income of the women was E 30 ³⁾.

Russel, in her study on the handicraft market, found that the average net monthly income from handicrafts was E 37 per woman ⁴⁾. According to the pricing system of the Handicraft Office of the Ministry of Commerce and Industry - whose representatives purchase women's groups' handicrafts and resell them at the Mantenga market - a rate of E 1.50/hour is paid for 6 hours of work (materials included). At this rate, a woman who devoted 124 hours/month to handicraft production could earn E 31/month.

During the field work carried out in a community preselected to receive an improved water supply under Lomé III, women were interviewed in order to determine the baseline situation with respect to their income level. One woman had to support seven school-age children and her blind husband, who could not work. After deducting the cost of transportation and the investment cost

1) de Vletter, 1979 (quoted in Tabibian, 1985 - ref. 60, Annex 3: 142).

2) Tabibian, 1985 (ref. 60, Annex 3).

3) van Driel, 1987 (ref. 37, Annex 3): 56.

4) Russel, 1985 (ref. 58, Annex 3): 142.

in materials from the sale proceeds of E 175, she earned E 55/month from the sale of dresses.

Interviews during the field work also revealed that women earned approximately E 10-15/month from the sale of vegetables or poultry and eggs. Thus, in reconstructing the baseline situation of the women in the project area, from a combination of agricultural as well as non-agricultural income-generating activities, women could earn E 30-60/month, an income over which they had control and which they could spend on household expenditures.

The table below indicates women's expenditure patterns.

Patterns of Expenditure of Women's Income from Handicrafts

Item	Women Allocating Part of Income to Item (%)	
	Tabibian (1985)	Russel (1985)
Food	67.5	57
Clothing	64.3	38
School fees	60.2	33
Reinvested in production	34.6	19
Health/medicine	20.7	-
Savings	-	19

Source: Russel, 1985 (ref. 58, Annex 3): 144.

3.1.10 Women's Organizations

Especially on a grass roots level, women are highly organized. One of the most widespread and rural of the women's organizations are the Zenzele groups, with some 200 scattered throughout the country. These "do-it-yourself" groups are community-based groups of women, with membership numbers ranging from 20 to 70. Supported by the MOAC Home Economics Section, the objective of these groups is to

raise the standard of living of members, their families and communities.

The groups are involved in a wide range of income-generating activities, such as sewing, producing and selling handicrafts, marketing vegetables, cooking and selling food, dyeing cloth, weaving, block-moulding, etc. They are also involved in general community activities, such as the provision of crèches, disease prevention, gardening, nutrition and latrine construction.

Groups are organized when there is sufficient interest among a number of women who then contact a home economics officer for advice and back-up support. Registered members pay a nominal membership fee and meet weekly, with visits by extension workers at regular intervals. Training is often carried out in the open air in the community or in a shed.

A striking feature of these groups - in view of the selection process of the male formal leadership in many communities - is that all Zenzele group leaders, including a chairwoman, secretary and treasurer, are democratically elected, chosen by membership vote. This democratic feature is certainly an important factor contributing to the groups' cohesiveness.

Nutrition education is accompanied by agricultural advice on the cultivation of vegetable gardens. If groups are interested, home economics extension workers are also invited to give seminars covering such topics as fish farming, poultry-raising cooperative development, bookkeeping, etc. In addition, the groups receive skills training in handicraft production under the guidance of handicraft officers of the Ministry of Commerce, Industry and Mines or from the home economics extension workers.

Several studies have pointed out the important development potential of Zenzele groups. Nevertheless, a recent USAID evaluation carried out on these groups indicated that, although women were generally eager to join Zenzele groups, a lack of female extension workers, combined with a certain amount of disinterest in

"women's affairs" on the part of the numerous male agricultural extension workers, has meant that women's groups have had to struggle to achieve their goals largely on their own ¹⁾.

The Farmers' Cooperative does not have many women's cooperatives; only 5% of its groups are women. Literature indicates that women seem to have been influenced by the negative experiences of some of the male farmers with the Farmers' Cooperative. Nevertheless, cooperative or collectively-organized work manifests itself in many of the women's associations, particularly the Zenzele groups. In some, women have collectively acquired land from the chief in the area, and have planted cotton. From the proceeds of the cotton field they purchased fertilizer, which was sold to the local male farmers. They then bought a tractor and set up a vegetable garden.

The Consultant's field work also indicated that the Zenzele group in the community of Endzingeni, served with an improved water supply under the USAID project, had collectively acquired land for hybrid-maize cultivation as well as for vegetable gardening.

Another example of a successful cooperative is the marketing cooperative, Sukumani Bomake Store in Piggs Peak. Graduates of the UNDP WID training course set up this marketing outlet for its 13 members to procure materials and sell the members' products. The Hhohho Women's Union Store is a further example of a successful regional marketing outlet set up by women for women.

At the national level, there is the Lutsango Lwaka Ngwana, a national women's organization for all Swazi women initiated by the late King in 1967. The objectives of this organization are to "stimulate self-help projects, to discuss matters, express views affecting women and children and to encourage women to fulfill their duties of citizenship, national service and patriotism" ²⁾.

1) USAID, SWAMDP, 1988 (ref. 61, Annex 3): 8.

2) van Driel, 1987 (ref. 37, Annex 3).

Especially urban-educated women have questioned the objectives of this organization which is seen "as a support of traditional norms and values on women's roles with no room for change in a 'modern' direction." It is also questioned whether this organization represents all Swazi women, when it excludes other viewpoints ¹⁾. The activities of Lutsango are primarily related to traditional ceremonies and festivities as well as to some WID projects initiated by this organization such as poultry raising and vocational training.

In 1986, an independent women's organization, the Asibonisane Bomake Organization ("Mothers, let's help each other"), was established by some progressive-thinking, urban-educated women. The objectives of this organization are broad, for example providing a forum to exchange ideas, problems and experiences with a view to being involved in development projects to raise the standard of living in Swaziland. Other objectives are to support educational, cultural and developmental undertakings, to create awareness of the role of women in development in the country and to undertake research. Whether or not this national association will be viable in the long term will largely depend on the room it is given in the dualistic context of Swazi society.

Perhaps the women's organizations which have the greatest contribution to make to rural development are the Zenzele groups. A USAID-funded study of community mobilization potential in Swaziland showed that local women's organizations, especially Zenzele groups, are widespread and reasonably effective.

The study also indicated that male agricultural extension workers and health assistants had little contact with Zenzele and other women's groups, and that such groups were generally under-recognized by local people outside the local community. To sum up then, Zenzele groups are among the most widespread, yet under-recognized local development groups in Swaziland ²⁾.

1) Armstrong and Russel, 1985: 83-84 (quoted in van Driel, 1987 - ref. 37, Annex 3).

2) Green and Isley, 1988 (ref. 40, Annex 3): 11.

*3.1.11 Access to Non-Formal Education, Training and Self-Help
Development Assistance*

Several income-generating skills training programmes are available to rural women. Many of these resemble each other in that they provide non-agricultural "feminine" skills which are, to a large extent, non-viable in terms of providing rural women with permanent and gainful employment.

At a recently held seminar in Swaziland, organized to commemorate International Women's Day, the discussions centred upon the constraints facing rural women in their efforts to generate an income (see Section 3.2). In the opinion of the rural women participants present, it was felt that many of the existing income-generating programmes provided inadequate training. Moreover, they had been initiated without proper feasibility studies and needs assessments and lacked suitable marketing strategies and structures.

There are a number of the training and development assistance programmes available, however, which are attempting to provide rural women with the skills and back-up support necessary to become independent economic producers, individually or in groups, e.g. the Swaziland Manpower Development Programme (SWAMDP) Zenzele groups training, the PPP project and the Swaziland Farm Development Foundation as well as the EDF Micro-Projects Fund and Revolving Fund for Micro-Businesses.

All of the aforementioned are attempting to stimulate the formation and growth of women-run micro-enterprises in both the agricultural and non-agricultural sector.

A more comprehensive overview of the training programmes and self-help development assistance currently available to rural women is provided in Annex 6.

3.1.12 *Women's Social Role in the Community*

Decision-making at community level takes place in the traditional council, the "Libanda", which is headed by a chief or a deputy. This council deals with problems affecting the local community as well as development-related matters such as discussing the need for improved water supplies or planning the construction of a clinic. Councils are typically involved in various types of preliminary planning. Once decisions are made, council members may decide on the formation of a specialized committee, e.g. a water committee to supervise and manage the communities' contributions and participation in a water project ¹⁾.

From what has been said so far, one may get the impression that women's organizing capacity is hampered and that they are not active in community affairs. In fact the contrary is true. Although Swazi women have no formal political role at the community and grass roots levels, they are highly organized and play a very active and prominent role in certain community development-related committees.

Despite the fact that the involvement of women in the decision-making process of their community is limited due to its male-dominated social and political structure, women are the most enthusiastic participants in community development projects. Poulson (1983) indicates that almost 80% more women than men are active in self-help projects and women also form the majority participating in social welfare programmes ²⁾.

Green, in his study to assess the community mobilization potential for development in rural Swaziland carried out in 1983-84, found that, of the development-related committees, the most prevalent were school committees, followed by women's self-help development committees.

¹⁾ Green and Isley, 1988 (ref. 40, Annex 3): 162.

²⁾ Poulson, 1983 (quoted in Tabibian, 1985 - ref. 60, Annex 3).

He reports, "Women's self-help committees 'Zenzele', were found to be the most diverse and multi-purpose of any local organizations. Whereas members of other development committees might have been appointed by local leaders, members of Zenzele committees were always democratically elected by the other women members". One of the most significant of his findings was that these Zenzele committees proved to be among the most widespread, enduring and effective of all development organizations. Among the factors that seemed to determine the effectiveness of these organizations were the support of the chief or chief's deputy, contact with an extension agent, and having clearly defined goals that related directly to a locally recognized need or problem ¹⁾.

Women's Zenzele groups, thus, play an extremely important role in organizing and mobilizing rural development efforts, thereby providing a unifying force to what are otherwise dispersed rural communities. Consequently, as Green points out, "Communities with dispersed residence in Swaziland seem to be at least as organized and mobilized for participatory development as those in village-based societies elsewhere in southern Africa" (see also Subsection 3.1.1).

Green concludes that the Zenzele groups offer a valuable human resource potential for rural development and that efforts should be made to develop the other half of the country - the women.

The SWAMPD and its training and strengthening of the Home Economics Extension Section and the Zenzele groups can be viewed as a follow-up action to strengthen the community mobilization potential of these women's groups (see Subsection 3.1.11).

At a recent local leader workshop - also part of the training provided under the SWAMPD - one Community Development Officer commented that, "the more women constitute development committees' membership, the more active and effective the committee". Prince Mbilini, speaking at a recent local leader workshop, was quoted as

1) Green, 1984 (quoted in Tabibian, 1985 - ref. 60, Annex 3).

saying, "Swazi men tend to drag their feet when it comes to work; it is now obvious that development is the duty of women..."¹⁾

The reasons put forth at the workshop discussion as to why women were all so active in development included the fact that women constitute a de facto numerical majority in rural areas. While the ambitious, industrious men tended to leave the rural areas in search of wage employment, the adult men remaining were sometimes characterized as old, lazy and often uninterested in community development. It was further speculated that when rural Swazi men think of development, they think in terms of activities such as maize cultivation, mechanizing their farming, irrigating their fields or improving their livestock. Swazi women, on the other hand, cannot only think of themselves, but must be concerned with feeding their whole family and are thus more inclined to be community-oriented and receptive towards self-help development activities²⁾.

3.1.13 Women and the Family's Living Conditions

The major health problems of the rural areas include high rates of infant, child and maternal mortality. Infant and child mortality is 146 per thousand for females and 175 per thousand for males. The life expectancy is 49 years for females and 43 years for males. Prominent among the causes of death are diseases related to water and faecal contamination of the environment, which result from poor access to protected water supplies and sanitation facilities, poor hygiene and the poor quality of available water, as well as poor understanding of these factors and other related health matters.

In a survey of diarrhoeal diseases in 1983, 16.4% of children in rural areas had had diarrhoea within the preceding two weeks. Prevalence rates of diarrhoeal disease were significantly higher in the lowveld than the highveld and middleveld, as were mortality rates.

1) Green, 1989 (ref. 41, Annex 3): 10.

2) Ibid.

School-age children are also affected by bilharzia and other intestinal parasites. The presence of bilharzia is high in the middleveld, where it affects 29% of schoolchildren, and in the lowveld where it affects 18,5%. In 1977 it was recorded that some 70% of school-age children were reported to have bilharzia.

In 1982-83 a survey of the "Knowledges, Attitudes and Practices" (KAP) of water and sanitation in Swaziland was carried out under the auspices of the USAID-funded Rural Water-Borne Disease Control Project. About two-thirds of the 455 homesteads interviewed obtained their water from unprotected streams, springs and dams, but only 10% believed that dirty water was the cause of diarrhoea, leading to infant mortality.

Particularly in the lowveld, borehole water was held in low esteem because it was the "worst tasting". Some 83% of those interviewed never boiled water. The daily per capita water consumption was calculated at 6.6 litres. In the context of an ODA-funded water project, a baseline study carried out in 1978 in six project communities revealed that many women were spending more than four hours per day collecting water which was often of poor quality ¹⁾.

In 1983 about 25% of the homesteads had a latrine. However, the percentages were much lower in the lowveld (12%) and on the Lubombo escarpment (10.8%). Moreover, about 75% of the rural population was living more than 8 km from a clinic.

It is worth pointing out that the KAP survey showed that improved health and reduction of water-related diseases were often not the primary motivation for communities to participate in clean water and sanitation activities and adopt improved health behaviour.

The survey found that the convenience factor is more important than health factors when choosing a water source. The report concluded that, "Behaviour change on a large scale is necessary if the incidence of water-related diseases is to be reduced significantly.

¹⁾ USAID, 1982 (ref. 31. Annex 3): 78.

Many rural Swazis did not know how to distinguish safe from unsafe sources of water" ¹⁾.

A more recent evaluation conducted in 1986, which measured health behavioural changes affected by the USAID Rural Water-Borne Disease Control Project, found that the idea of paying for clean water was a foreign concept, regardless of the charge, and that the communities' understanding of the connection between health and proper sanitation was not always clear ²⁾.

The National Health Policy formulated in 1983 gave the highest priority to the establishment of a primary health care system, basic elements of which included the provision of health education and the promotion of clean water supplies and basic sanitation.

3.2 National Policy on Women and Development

The Government has no official or special policy on women (4th National Development Plan 1983-1988), but by unofficial policies the traditional norms and values which emphasize the women's role as mothers, child-rearers and housekeepers are re-enforced. This is reflected in, i.a. the laws on marriage, work and taxes, which place women at a disadvantage. Government policy, as laid down in the Four Year Plan, takes no account of women's part in industrial development.

In 1970 Swaziland signed the Convention of the Political Rights of Women upon the condition that it was not to be declared applicable in those areas covered by traditional common law - all the SNL area, comprising the rural areas.

The establishment of a Directorate of Women's Affairs under the aegis of the Prime Minister's Office has been under discussion since 1982, but to date, no action has been taken. Some of the

¹⁾ USAID, 1982 (ref. 31, Annex 3). 78.

²⁾ USAID/Rural Water-Borne Disease Control Project, 1986: 29.

opposition to the establishment of this Directorate comes from the official women's organization, Lutsango Lwaka Ngwane (see Subsection 3.1.10), which is afraid of forfeiting its powerful position.

Lutsango is supposed to represent all Swazi women, but its most active members and organizers are a group of well-educated and elite urban women who are mostly in charge of its cultural and welfare activities.

Nevertheless, the impact of Lutsango, a traditional women's organization with its emphasis on women's primary responsibilities, should not be underestimated, especially among rural women. It is a traditional women's organization to which all adult women automatically belong.

The more recently established organization, Asibibonisane Bomake (see Subsection 3.1.10), an organization of progressive-thinking women, emphasizes the importance of recognizing women's socio-economic contribution to society, the overall problems women face, and the need to solve them by special research and projects directed at women.

In March 1989, Asibibonisane, in collaboration with other NGOs, organized a seminar to commemorate the International Women's Day. In particular, such themes were examined as the situation of women in Swaziland with regard to: women's right to land, their access to safe drinking water, their role in ensuring good health for the family and their role in economic development ¹⁾.

Furthermore, the seminar was designed to sensitize women on Swazi women's role in development and to highlight women's role in society. In addition, the seminar organizers hoped to provide a forum for the exchange of views for women's NGOs, donors and government organizations on the ways and means of strengthening the participation of women in the development process, from planning to

¹⁾ Asibonisane, 1989 (ref. 34, Annex 3).

implementation, including the allocation of appropriate resources to women's programmes.

The seminar discussions centred upon the constraints facing women, in particular in the rural areas, in their advancement and integration in the development process, and upon women's priorities and urgent needs.

In view of the high rate of women's unemployment, it was felt necessary to strengthen the informal sector, in particular through income-generating programmes. A problem recognized with many of the existing income-generating programmes is their lack of suitable marketing strategies and structures. Many of the programmes have been initiated without proper feasibility studies and needs assessments. A further constraint is inadequate training for women.

It was felt that there is a need to create a climate conducive to the easy entry of women into the business/commercial sector. Training and access to credit were highlighted as vital tools to equip rural women with the necessary skills to handle such ventures.

The currently existing WID programmes were felt, in many cases, to have ignored women's basic needs, particularly in the rural areas. Women have their own personal needs and priorities, and these should be taken into consideration in designing programmes.

It was proposed that Asibibonisane and other women's groups and NGOs need to collaborate in carrying out a general needs assessment of women in the rural areas, covering the following subjects:

- the health status of women: nutrition, family planning and health;
- education: youth's perspectives, literacy rate and socio-economic constraints;
- environment/energy: baseline data;
- agriculture: access to land, water and credit, socio-economic constraints;

- housing: baseline data, access to land and credit, affordability levels;
- social sector: cost of educating children in female-headed households, maintenance cost of supporting children and its effects;
- informal sector: contribution to economic development, potential for women and the constraints and opportunities.

During this needs assessment, information will also be collected on the existing resources currently available to women in the rural areas, such as ongoing programmes for training, credit lines, extension services, etc.

Subsequent to the implementation of this general needs assessment, a resource bank is to be set up, where all the information gathered during the needs assessment, in particular with regard to the resources inventoried, will be collated, stored and made accessible to anyone requiring such information.

However, the availability of funding from other donors or NGOs will be essential for the implementation of such a general needs assessment and central "resource bank". International organizations and NGOs were urged to assist in the identification and planning of the following priority issues:

- land
- water
- labour force
- capital
- marketing
- transport
- population demand.

In relation to women's priority needs, the rural participants at the seminar requested well-established NGOs to act as advocates on their behalf in asking chiefs in different areas to make land available to them for farming and for the construction of shops to market their goods, fruits and vegetables.

In addition, the rural women were interested in acquiring the working capital to set up income-generating activities in:

- poultry farming
- pig farming
- dairy farming
- brick making
- tree nurseries
- sewing
- handicrafts.

Access to a readily-available supply of water to carry out the above-mentioned activities and access to safe drinking water were listed as the number one priority by the rural participants. Boreholes were few and far between and in some cases there was only one borehole to serve the entire population of a community. Some of the boreholes were not functioning or had not been maintained or serviced since their construction, with the result that they were now giving diminishing returns.

4. EVALUATION OF PROJECT DETAILS IN RELATION TO THE ROLE OF WOMEN
IN WATER SUPPLY AND SANITATION

4.1 Assessment of Project Objectives

4.1.1 *Lomé II and III Projects: Long-Term and Immediate Objectives*

The overall long-term project objectives of Lomé II and Lomé III are to improve the living conditions and health of the rural population through the provision of safe and sufficient water from standpipes situated within a reasonable distance of the homesteads (as well as inputs of sanitation facilities and health education). These inputs, according to project documents, are expected to bring the following benefits:

- The improvement of the quality of life as a result of the reduction in water-borne and water-contact diseases;
- The availability of an improved water supply within 200 m of the homestead. This will free women and children from the time-consuming chore (often four hours per day), of collecting contaminated water from distant traditional water sources;
- The time- and labour-saving opportunity offered by the water system. This is expected to be a stronger incentive for women to use the facilities than the assumed health benefits. Anything from 10-30% of a woman's working-day could be saved, and this time can be rescheduled and used to carry out new, productive activities;
- The potential benefit that the communities' self-help and organizational efforts - taking part in the planning, implementation, financial management, operation and maintenance of their supplies - could bring, would assist in uniting the communities and promote solidarity and cohesiveness;

- The successful involvement of the local management committees in implementing their community water supply management and maintenance could instil confidence into the community members to assume responsibility for other self-help development efforts in their own community.

Success in water and sanitation projects is characterized by four stages:

- coverage
- functioning
- utilization
- health and socio-economic impact.

Although coverage is achieved when people have access to improved facilities, this does not imply that the facilities will function and be utilized after project completion. Coverage is thus only one of the preconditions necessary to achieve any positive impact on health and social and economic welfare.

Before any of the project's expected benefits can be reached, provisions must be made for the reliable functioning and effective utilization of the supplies. However, these two necessary intermediate objectives have not been dealt with or provided for in the planning and design of the first phase of the project.

In order for the project to have reached any of its intended long-term objectives or benefits, it would first have had to attain the following intermediate objectives:

- An optimal and effective sustained utilization of the improved supplies by the users, principally women, in ways that maximize benefits and minimize negative consequences;
- Motivation for long-term utilization of the supplies, resulting from an awareness on the part of the women and other community members of the causal link between contaminated water, poor sanitation and disease, and also of the benefits of the installation of improved supplies which meet the needs of the

women and community members, in terms of service level, adequate quality, quantity, accessibility and ease of use and upkeep;

- The establishment of an effective community-based management and maintenance system providing for sustainable water supply schemes;
- The community's feeling of ownership and responsibility for the long-term sustainability of the improved supplies.

4.1.2 Review of Planning, Design and Implementation of Lomé II

In analysing the Lomé II project's objectives, its indicators of success and the relationship of project activities, it becomes clear that there is an apparent shortfall in the planning and design. Although the project aimed for a reduction in water-related diseases and a general improvement in the rural population's health and living conditions, the activities dealt mainly with the installation of new facilities and the budget dealt with the people and materials needed to install the water supply schemes. The indicator of project success has been that of achieving coverage.

The project objectives and activities lack logic in that it is difficult to leap from the installation of a number of new water schemes to an improvement in health without first passing through several intermediate steps which provide for the continued functioning and a sustainable and effective utilization of the supplies.

Analysing issues related to sustainability naturally brings up questions related to women's role as a way to reach objectives, because the optimal strategy for achieving long-term community support for sustainability involves: identifying the right target clientele, including this target group in the decision-making and reflecting their needs in the policy-making.

In examining the project's activities and other inputs in relation to the anticipated outputs and benefits, it becomes clear that a combination of factors at the outset of the project resulted in the insufficient planning of approaches and resources, namely:

- lack of identification of target clientele
- lack of planned synchronization between the technical and social components
- limited community participation strategy
- insufficient community development manpower
- lack of a budgetary provision to upgrade the skills of community development officers
- no training planned for the water committee members and water operators.

Identification of Target Clientele: Women as a Target Group

Because women have been viewed as the consumers and potential users of the water facilities - housewives, mothers and domestic water collectors - project planners did not foresee women playing an active part in the design, construction, management or maintenance of these water facilities.

Both the EDF and the implementing agencies have focused on women's domestic 'reproductive' (see page 96) roles as passive beneficiaries of the improvements in water supply and have overlooked their potential contribution to all project activities essential to the creation and long-term sustainability of the supplies. The project services for these activities were almost exclusively planned for and targeted towards the men in the communities.

Given the demographic profile of the rural areas, women making up the majority of the available active work force (see Subsection 3.1.2) and the fact that most community self-help development work in Swaziland has been carried out by women (see Subsection 3.1.12), it is somewhat surprising that the implementation activities in the EDF project were not targeted towards the women as well.

While there has been an overall recognition of women's key role in attaining an optimal, hygienic and consistent use of the safe water, there was, and still is, little recognition of the strategic role women could have played in the construction, financial management and maintenance of the supplies installed.

Given the gender differentiation of tasks for men and women, water has always been a woman's responsibility (see Subsection 3.1.7).

With a traditional water supply system it is automatically assumed that women are the local water managers responsible for its maintenance, but once an improved water supply system involving more sophisticated technology and modern mechanical equipment is installed, women are displaced from their traditional position and men are placed in charge of handling and managing the equipment and taking the water supply decisions.

Therefore, because new systems involve technical and mechanical aspects considered to be in the male realm, any attempts to consult the community members have focused on the male community members. There has been an assumption that somehow the women will, indirectly, also feel involved. This has proven to be a fallacy. Much of women's daily lives revolves around water and they are likely to assign it a higher priority than men. The emphasis upon the more prominent public roles of men has resulted in the importance of women in community water supply decision-making and management being overlooked.

Project activities to set up the community-based maintenance were also targeted exclusively towards men. While the prevailing cultural and normative values might make one initially focus on male involvement in operation and maintenance, attention paid to such issues as: who has the most vital interest in the continued functioning of the facilities and would hence assume responsibility for their reliable operation, and who would be available on a daily basis to carry out the maintenance, would show that the maintenance is a task for women as well.

The inclusion of women does not mean the exclusion of men, but by including women as active participants, the project would gain a valuable resource.

Although cost recovery and a community financial management scheme are essential for ensuring the continued functioning of the supplies, no preliminary socio-economic field work and feasibility studies were carried out in the project areas to ascertain who in the household would actually be responsible for paying the water fees and O&M costs, whether those responsible could afford these costs, or whether there were sufficient existent income-generation possibilities (see Subsection 3.1.9).

Implicitly, it has been assumed that the male head of the household would be responsible for paying all household water-related costs. Consequently, women were not acknowledged as co-funders of the O&M costs and as a separate target group with their own interests and needs in generating sufficient cash to pay the water fees.

The project aimed to create economic benefits for women, in that the time-saving opportunity offered by the water system could be utilized for new production activities, but it did not attempt to ascertain what the women's existent production activities were and what assistance or additional inputs the women would need in order to enjoy the planned economic benefits, or which project activities would be necessary to help reach this goal (see Annex 6).

As a result of the project planners and project management identifying women as the beneficiaries of the improved water supplies and not as the implementors and agents carrying out the planned activities, the majority of the project's services were targeted towards men. Consequently, it was for this "clientele" that the community meetings were planned and no attempt was made to stimulate women's participation by scheduling the meetings at a time convenient for women.

In order to promote the involvement of women, the project management and field staff would need to be aware of women's special

needs and take into account the limited time women have available for activities outside their arduous daily routine, particularly during the peak agricultural season, when planning the activities, so as to adapt them to the particular needs of women. These types of measures must be developed in order to ensure that women will be included in project activities.

Synchronization of Technical and Social Inputs

The effective synchronization of the technical and social components is always essential in a water project. Sometimes the technical work is too slow and sometimes the community mobilization is too slow. This integration is particularly important in the EDF-funded projects.

Unlike other projects in the rural water sector, in which the RWSB implements both components, in the EDF project the technical work of designing and constructing the water systems is carried out by consultants and contracted construction companies, while the community development and mobilization activities are performed by the RWSB community development and health staff.

In the other RWSB-implemented water projects, it is normally during this design and construction phase that the community members, particularly the women, are consulted by the community development worker and RWSB Design Engineer as to their preferences with regard to the location of the standpipes.

By working alongside the RWSB technical and construction crew throughout the six months that their water scheme is under construction, the women and men in a community have the opportunity to take part directly in the design and siting of the entire water system as well as receive on-the-job training in operation and maintenance.

Therefore, in the other rural water projects, it is during this 'technical' phase that the RWSB field staff - the Community Development Officer working together with the RWSB Design Engineer

- consult the women, draw upon their local knowledge and jointly lay out the pipeline.

Providing for this type of women's involvement and community participation during design and construction when contractors are implementing these activities poses a unique challenge.

Proper planning was essential to ensure that none of the technical activities began before the social preparation and community acceptance had been achieved, and the community members, the women in particular, could collaborate in the design and decision-making for the water supplies.

This would have involved the project's management team scheduling the inputs and designing a work plan which would interweave the community preparation and participation with the technical interventions. This planned synchronization was neither foreseen nor carried out by the management team; in contrast, the social and technical aspects were treated as being parallel but unrelated.

Limited Community Participation Strategy and Inadequate Community Development Staff Manpower

The particular design of the EDF project, with a commercial contractor carrying out the construction work, also created special problems in achieving the project's planned output of community involvement in the construction and design of the water supply system.

This strategy, applied in all donor-funded RWSB rural water projects, was also incorporated into the project design of the Lomé II project (see Subsection 2.3.1). The project planners did not foresee, however, the special difficulties community involvement might raise when a commercial contractor and not a RWSB crew was responsible for the construction.

Consequently, no special attention was paid to the issue of how to maintain community involvement, nor were any provisions made to

ensure this during negotiations with the contractor. It appears that once the RWSB became aware of this problem and tried to propose the solution of having the communities participate by digging the soakage pit, the EDF and the contractor refused on the grounds that this type of community participation in construction was not part of the contractor's original terms of reference. The consequences of this have been particularly detrimental for the consultation and involvement of women in the design of water supplies.

The operational strategy for community participation which was implemented during Lomé II included a very limited concept of what the community was expected to contribute. This was restricted to inputs of mostly cash, and did not open up the decision-making process to the communities, in particular to the women.

The RWSB's major concern being the speed with which coverage was achieved has resulted in a minimal strategy of participation, whereby the women have not been permitted take part in the design of their water supply system, define their own water needs, or take part in the decisions. It was felt that things could be done with greater efficiency if the project staff and the consultants and contractor did not share control or collaborate in the decision-making with the intended beneficiaries, in particular the women.

Any externally-designed "solution", however, which does not draw on the women's own knowledge about the local context and conditions runs a high risk of being inappropriate. In contrast, experience has shown that if the community members truly feel the project is theirs, they will usually be willing to take on the responsibility of paying recurrent costs. This point was also underlined in a recent evaluation of the USAID rural water project ¹⁾.

An inadequate amount of time was devoted to the preparation, mobilization and organization of the communities, so that the

¹⁾ USAID, 1988 (ref. 33, Annex 3).

community-based management and maintenance system which is so vital to project success was not realized.

Believing that it was the quickest route to get projects under way and completed on schedule, some of the community development workers, when setting up the water committees, tended to work mainly through local male authority figures who, in turn, would appoint the committee members themselves. The community development workers may also have been at a loss as to how to go about associating community members, in particular the women, as partners in the decision-making and management roles.

A more in-depth community participation strategy which ensures women's involvement is required to put into place an effective community-based management system. To accomplish this, the community development workers must take the time to work closely with the communities to assist them in selecting the men and women capable of taking responsibility and control of the water points.

It should be mentioned, however, that the implementation of such a labour-intensive approach would have necessitated a larger community development staff than was available during the implementation of Lomé II.

However, such a community participation strategy, albeit more time-consuming, would contribute to the long-term efficiency and effectiveness of the project, as there is a greater probability that the women and men would use the supplies, ensure their on-going maintenance and take responsibility for the water points.

Training

Neither the human resource development of the community development staff nor that of the communities was planned for or foreseen in the project design. The RWSB itself did not have the resources to finance the above-mentioned type of training either. Although the EDF had not identified this need for the skills upgrading of the community development staff and the training of the local manage-

ment and maintenance groups, another donor in the sector, namely USAID, has programmed and funded such human resource development training in its rural water project ¹⁾.

The first training the communities in the EDF project schemes did receive only occurred when the oldest EDF water schemes had already been in operation for five years. Therefore, although both the EDF and the RWSB expected the communities to be responsible for financial management and technical operation and maintenance tasks during the initial five years of the water schemes' operation, no training was provided by the project to the community members for them to acquire the necessary skills to do so.

4.1.3 Review of Planning, Design and Implementation of Lomé III

In comparison to the Lomé II project, a marked improvement can be seen in the planning, design and implementation of the Lomé III project.

In comparing the Lomé III project's objectives, its indicators of success and their relationship to the project's activities, it is clear that an attempt has been made to incorporate many of the lessons learned into the design of this second phase which is currently in progress (see also Subsection 2.3.1).

This second phase takes into account the experience of the previous phase and also other schemes financed by other donors, especially regarding the need for a better community preparedness.

The design and planning of the Lomé III project reflects a serious effort to provide for the two intermediate steps beyond coverage: effective functioning and utilization of installations. The project activities deal with the preparation, organization, education and training of the communities so that they will be well

¹⁾ In order to be able to provide the proper support to the water committees, USAID provided training workshops for the Community Development Officers to upgrade their skills in effective community organizational techniques, communication, problem-solving, financial accountability and water fee collection methods. In addition, one-week USAID-funded leadership and water committee training seminars were carried out in 1989 which included the committee members and water attendants of the Lomé II project communities.

informed and understand their responsibilities, be organized and be competent to assume responsibility for their management and maintenance tasks, as well as acquire a basic understanding of health, which will motivate a hygienic and consistent use of the facilities.

These improvements constitute a major step forward. Nevertheless, looking beyond the phasing out of the project and providing for the effective utilization and long-term sustainability of the installations once project assistance ends requires going one step further.

The project design and its activities must provide for the sustainability of the water supplies. To achieve this goal, the project will have to identify the right target clientele, include them in the decision-making process and reflect their needs in its policy-making.

The project's success in effectively integrating women in all of its project activities therefore determines its sustainability.

With this goal in mind, the following project elements will be examined:

- identification of target clientele
- synchronization of technical and social components
- community participation strategy
- water-use policy
- health education approach
- training of community members.

Identification of Target Clientele: Women as a Target Group

The appraisal study and the other Lomé III project documents fail to recognize and address the central role women have to play in the preparation, construction, management and maintenance of the water supplies. The project planners, project management and implementing agencies continue to address women as the principal beneficiaries and consumers of the improved facilities and do not consider them as producers and active participants critical to the implemen-

tation of all activities leading up to their installation, or as the section of the community which will have a strategic role in ensuring the sustainability of the facilities.

Thus, the project's services and activities are still principally targeted towards the men in the communities, despite the fact that the lessons learned from the Lomé II project indicated to the community development staff that women's involvement in the community management of the supplies was a prerequisite to ensuring their functioning (see Subsection 4.3.2).

There appears to be an information gap between the planners, project management and RWSB management, on the one hand, and the project's field workers, on the other hand. The "top" appears to be "gender-blind" to the critical importance of women, whereas the "base" is very aware of the reality that the real success of all their project activities depends on the active involvement of women. There is a need, thus, for information channels to be created so that feedback can be channelled from the field to central management (see Section 4.4).

The appraisal study makes a point of emphasizing the proportional over-representation of women in the project areas (see Subsection 3.1.2). Nevertheless, the consequences of this demographic profile for the planning of the project's services and activities has been ignored or overlooked.

Moreover, the financial repercussions of a large majority of female-headed households upon the affordability and sustainability of the water supplies have not been taken into account.

An important question which should have been addressed by the project's planners, but was not, was what implications the proportional over-representation of women would have for the financial sustainability of the water supplies.

In the de facto female-headed households, where the husbands and other wage-earners are absent, do they send remittances home and,

if so, does the wife have the power to allocate this money to the payment of the household's water fees? If not, does she have sufficient income-generating possibilities and income to pay for an additional family expense - the monthly water fee (see Subsections 3.1.2 and 3.1.9)?

This problem becomes even more acute for those female-headed households where there is no husband or other wage-earner and the woman is the sole earner and source of financial support for the household.

If women make up a large part of the target population of the project, as the data indicate, will they be able to afford the long-term O&M costs of a water supply system?

The answers to these questions have direct implications for the sustainability of the new water supply schemes which will be installed.

In the interests of ensuring the continued functioning of the water systems, the project must ensure that all community members, even the poorest households (the female-headed ones) can afford the recurrent O&M costs, i.e. ensure that they have adequate income-generating possibilities.

Experience from the Lomé II project has shown that in the majority of cases, the communities' tariff policy is based on the premise: "access to the tap only to those who pay" (see Subsection 4.3.1). In many of the communities served with an improved water scheme under Lomé II, those households which cannot afford to pay the monthly fee are not permitted to collect water from the communal tap. This means that a segment of the community's inhabitants, the poor and very poor, which consists largely of women, may be denied access to the taps for a large part of the year.

By providing improved water supplies but, at the same time, not making any efforts to ensure that all the community members have the revenue possibilities to pay the O&M costs, the Lomé III

project may be only increasing the gap between the haves and the have-nots in the rural areas.

Synchronization of the Technical and Social Components

The inputs of the social and technical project components for the preparation of the communities and the design and construction of the water schemes are now planned to take place so that the design and construction phase - carried out by the Consultant Engineer and construction company - will only begin once communities have been fully mobilized and the water sources assured.

It is hoped that this type of planning will allow adequate time for the community development and health workers to carry out the community mobilization, organization and health education activities scheduled to occur prior to construction. During this preparatory phase, the communities are to select their water and sanitation committee and water operators/attendants, set up a maintenance fund and construct VIP latrines (see Subsection 2.3.3).

The project's selection criteria to determine which 12 communities will be selected to receive an improved water supply scheme are based upon the community's degree of preparedness in providing the required inputs. Once this social component is completed and the communities selected, the design and construction of the water schemes is scheduled to commence.

The need for synchronization does not end here, however. The lessons learned from the Lomé II project clearly showed that the Consultant Engineer and construction crew cannot keep the community at arm's length, totally exclude them from taking part in any of the design and construction activities and then have the project hand over the completed water scheme to the community and expect the community members to feel a sense of ownership for the supplies and maintain them.

Thus, it will be a challenge for the Lomé III project to allow for community and women's involvement while the Consultant Engineer and

contractor are carrying out the design and construction of the water schemes.

Community Participation Strategy

The community development staff has been enlarged so that there is adequate manpower to correctly carry out all the community preparation activities. Moreover, the community participation strategy currently in practice permits the community development worker the time to become acquainted with the community and not just the local authority and leadership figures. This approach allows the community development workers the opportunity to fully explain to the communities how the community-based management system operates and what their financial management and maintenance responsibilities will be.

Based on this knowledge, the community members are able to select the men and women they feel are capable of performing the community's management and maintenance tasks to serve as officers and members in their water and sanitation committee. During this process the community development worker plays the role of a facilitator. Overall, this approach represents a greater degree of community involvement.

Putting a community-based management system into place is the first step towards achieving sustainability. Including the community members, particularly the women, in the decision-making and reflecting their needs in the policy-making are the forthcoming steps to be implemented during the project.

However, although this improved community participation approach permits more community involvement, it does not provide any guarantee that women will systematically participate in this increased community involvement as partners in the decision-making and management of the installations. To achieve this, promoting women's involvement at all stages of the project cycle must also become an integral part of the community participation strategy.

An attempt is now being made to set up a two-way exchange of information between the communities and the project. During a field visit to a community which has been selected for the project and will soon be served with an improved water supply, the Consultant witnessed a meeting at which a community development worker and the RWSB Design Engineer presented technical information to the community about their water supply scheme.

The Design Engineer discussed both the financial and managerial implications of the different types of power systems (electrical or diesel-run) and the equipment which the community could choose from. He also informed the community members of some of the implications of different siting decisions, for example siting the pipeline alongside a road. Women took an active part in the animated discussion which followed.

It is not known, however, whether this procedure will be consistently applied throughout the coming three years in all 12 Lomé III project communities. In order to have a maximal effectiveness, this procedure should be institutionalized so that during every community's preparation phase this two-way exchange of information takes place systematically.

Setting up a two-way exchange of information is only half of the process, however. Once the community members are well informed, they must also be given the opportunity to take part in the decision-making concerning the choice of equipment, fuel system, accessories, etc. for their water scheme.

This means that the RWSB field staff, Consultant Engineer and contractor will have to share control and allow the women and men in a community to collaborate in the decision-making.

Several measures will be required to ensure this type of systematic community involvement and, above all, women's participation during the Lomé III project. Firstly, a protocol must be drawn up defining the design decisions open to community choice. Secondly, a detailed work plan is required containing the step-by-step

procedures to be followed during each project phase, permitting community and women's involvement in the planning, design and construction ¹⁾.

A possible illustration of this in practice could be as follows: subsequent to the two-way information exchange between the RWSB's Design Engineer and the community, the community development worker would meet with the community members in order to assist them in assessing the information and in reaching design and siting decisions.

The community development worker, accompanied by two representatives from the community's water and sanitation committee would then meet with the Consultant Engineer and inform him of the community's design and siting choices. The Consultant Engineer would try to apply these as far as is technically feasible. For example, if women expressed the need for clothes-washing facilities near the standpipes, the project could incorporate washing basins near the taps, provided that the water source can meet or exceed the demand.

Similarly, if women wish to use the tap water to carry out productive activities such as cultivating vegetable gardens, poultry raising or brick making, the Consultant Engineer (in conjunction with the RWSB Design Engineer) could base his calculations on these needs, design the system accordingly and incorporate appropriate equipment (pump, pumping station, water collection house/storage reservoir, appropriate pipe diameter size, etc.) into the scheme so that the necessary amount of water can be pumped and transported from the source to the tap.

With regard to the RWSB advising the women on the possibility of including laundry facilities next to the standpipes, this has been done in some of the communities served under the recent USAID water and sanitation project. It would be very beneficial if this

1) The World Bank has brought out a field manual which provides an example of a work plan for project managers to use in developing this type of planning (Kalbermatten, J.K. et al, A Sanitation Field Manual: Appropriate Technology for Water Supply and Sanitation, World Bank, December 1980).

procedure were also to be followed on a systematic basis in each of the Lomé III project communities.

As discussed earlier (see Subsection 4.1.1), community involvement during the construction activities is also important. During negotiations with the contractor, provisions will have to be included in the contractor's terms of reference specifying the exact type of community inputs feasible during construction.

As a result of their involvement in the construction and installation of the water supply scheme, the community will acquire on-the-job experience in the maintenance of the system.

The final measure necessary to solicit long-term community support is the formalizing of the community's commitment. At present a memorandum of understanding between the community and the RWSB is signed before the construction of the water scheme commences.

However, an additional measure to promote a community's understanding and acceptance of its ongoing maintenance responsibilities would be the introduction of a mutually-binding contract between the community and the RWSB (see Annex 8 for an example of this type of contract).

Such a contract, listing not only the community's responsibilities for long-term operation and maintenance, but also those of the RWSB in providing a repair service, would provide a means of formalizing each party's commitment and accountability. Furthermore, it would provide a joint definition of specified areas of local responsibility for maintenance.

This contract would be signed by two representatives of the community's water committee and by a representative of the RWSB at the official ceremony prior to handing over the completed water supply scheme to the community.

Women should be the centre of attention during this ceremony so as to give public recognition to their prominent role in water supply.

The fact that women hold a responsible function in water management in the community, and the project training they receive enhance their self-esteem and self-reliance. Ceremonies which help celebrate the introduction of a new water supply system are thus an excellent way of placing women in the centre of attention and strengthening their position in the community.

Water-Use Policy

Allowing women to define their water needs as they see them facilitates the formulation of a policy which matches their needs and is technically feasible. The RWSB's policy is that the tap water is only to be used for "reproductive" domestic water-use activities (drinking, cooking, washing, bathing) and not for any "productive" activities such as vegetable gardening ¹⁾. The present policy is counter-productive to achieving the very aims and socio-economic impact the rural water and sanitation sector is striving for.

In fact, a large number of the income-generating activities which women would engage in to raise the cash to pay the water system's operating costs depend upon the accessibility of a convenient and plentiful source of water. While it is true that women can sometimes collect the water from traditional sources, these are often situated at a great distance from the household.

The difficult task of carrying water over great distances acts as a constraint to the women engaging in any economically productive activity requiring the use of water.

Moreover, during the summer months when drought conditions prevail, there are often no alternative water sources available. Thus, the women are not able to engage in any of their income-generating activities which require water for production.

1) The term "reproductive" is used here to define a woman's use of water when she is in the role of housewife, mother and consumer. A "productive" use, on the other hand, refers to the role of the woman as a producer, using the water to carry out an economically productive activity that generates cash.

Consequently, the RWSB's water-use policy denies many women the opportunity to engage in the very activities which would generate the income for them to pay the water supply schemes' operating costs, costs which are necessary to keep the schemes functioning.

The Health Education Approach

Health education is provided prior to the construction of the improved supplies, but very little health education is given to the communities, in particular the women, once the water supplies and latrines are installed and in operation.

At present, health education is primarily used to mobilize the communities to construct the improved pit latrines, rather than to motivate the community members (particularly the women) to consistently utilize the new facilities.

In order to bring about a change in behaviour and ensure a correct utilization of the new facilities, health education must also be carried out on a systematic and long-term basis after the installation of the improved supplies.

The health education approach practised by many of the health staff is based on the assumption that the reluctance of community members to change their water or sanitary practices and to utilize the new facilities as intended is due to ignorance. The health staff then go about trying to 'teach' them to correct their behaviour.

Experience has shown, however, that behavioural change cannot be expected from a single one-directional transfer of new knowledge and skills. Nor can ingrained practices and beliefs be easily dislodged by outsiders.

A more participatory approach to health education is needed to bring about a change in the thinking patterns and habits of the rural population. The women and men must be directly involved in the critical analysis of their own situation and of their feelings and beliefs about it.

New information can and should be introduced by the health educators, but a participatory approach should be used which will permit the women to process this information in order to integrate it into their prior experience and system of values - this type of real assimilation can then lead to action.

Training of the Committee Members and Water Operators/Attendants

The training of the committee members and water operators, which is essential for putting into place an effective community management and maintenance system, must take place before each water supply scheme is put into operation, so that the community members will be able to perform all their management and maintenance responsibilities once the system is handed over to them.

The contents of the RWSB's recently adopted training programme for communities provides practical information and skills training on the following topics:

- the financial management system, bookkeeping and accounting procedures for the maintenance fund
- water and sanitation hygiene and health education
- the community's responsibilities
- the duties and responsibilities of the water committee
- technical training in operation and maintenance for water attendants/operators.

In order to develop the committee members' confidence and management and decision-making skills, an additional topic should be introduced into the present training curriculum. The leadership training now provided to the Zenzele women's groups by the home economics extension workers would be very useful for the water and sanitation committee members (see Annex 6).

The participatory method used in this leadership training has the potential to significantly strengthen the committees through the introduction of problem-solving skills and by improving group dynamics.

This type of training can considerably reduce the dependence of the communities on the community development workers because the problem-solving component enables the committee members to address the problems they face in the community management of their water scheme and find solutions applicable and workable within their own communities (see Annex 7) ¹⁾.

In the original training strategy prepared by the RWSB, the training workshops for the committees were to be limited to 36 participants. In practice, however, an average of 100 participants have attended each of the four regional committee training workshops held to date.

Each district-level workshop has grouped together two to three representatives from some 30-40 communities at a time. Therefore, as opposed to training all of a community's water committee officers and water attendants as was originally planned, only one representative of a committee and one water attendant per community received training. These two representatives were expected to transfer their new skills and knowledge to the remaining committee members and water attendants.

Given the central importance, however, of the committee as a whole, and each individual member thoroughly understanding his/her role and acquiring the necessary skills, it would be more effective if training was provided to all of the committee members and water operators/attendants from a given community.

Moreover, rather than training the water operators/attendants in a separate workshop, it would be beneficial to include them in part of the general training for the committee members as well. The inclusion of water operators/attendants as members of the water committees has proven to be a very motivating factor for them in assuming responsibility for their O&M tasks, as evidenced by the experience of other African countries where this has occurred.

1) This training is carried out as part of the ongoing SWAMP, funded by USAID, in which the home economics extension workers are first trained in the participatory adult education experiential learning techniques to learn to be trainers. Subsequently, they train the Zenzele women's cooperatives in leadership training (see Annex 7).

It is important, when planning these training workshops, to pay special attention to women's training needs, so as to promote women's full participation in the workshops. For example, many of the female committee members who are heads of households may have difficulty leaving the family or children alone if workshop attendance requires staying overnight or means several days' absence from the home. For this reason an effort should be made to organize the workshops at locations near the communities. Moreover, the workshops should be limited to three to four days' duration in order to reduce the amount of time women will be absent from the homestead. If necessary, training can be spread out over two sessions, each of two to three days' duration.

4.2 Women's Aspects in the Preparatory and Design Phase

4.2.1 *Role of Women in Project Preparation*

In the preparation of both the Lomé II and III projects, there is no conceptualization of the socio-economic distinctions between men and women which have crucial relevance in preparing a water project. No recognition is given to the fact that men and women have different roles, tasks, needs and constraints. Moreover, no recognition is given to the separation of the husband's and wife's income or of the gender division of responsibilities within a household. Given the definite gender division of financial responsibilities within a household, however, women are usually responsible for paying household costs for the welfare of the family, i.e. for food, clothing, medicine and water (see Subsection 3.1.8).

The baseline data given in the Lomé III project background information to support the premise that the O&M costs are affordable to users states that, according to a government socio-economic survey, the average homestead has an annual income of E 1,150, thereby giving a household sufficient earnings to pay the O&M costs. Implicit in this premise is the supposition that the male will pay the O&M costs and that the household's gross income, which

is in fact that of the male wage-earner, will be allocated to paying the water fees.

This average annual household income comes from, i.a. migrants' remittances, resident wage-earners, the sale of agricultural cash crops, and the sale of livestock.

No consideration is given to the possibility that the women left in the households may not have the authority to use the remittance money to pay for the water fees. Moreover, several household-expenditure surveys carried out in Swaziland have revealed that most men's remittances are spent on farm equipment, seed, fertilizer, etc. - all investments which will generate income from the man's fields. Therefore, one cannot automatically assume that women will have access to the remittances to pay for the O&M costs.

The same argument holds for the resident wage-earners. Agricultural cash crops are cultivated on the man's fields and cattle are usually a man's property. The proceeds from their sale remain with the man, and whether or not he gives any of this money to his wife (wives) for household costs is his prerogative. Any money he does give is seen as a gift rather than an obligation.

To further support the premise concerning the financial feasibility of the O&M costs, the data states that 53.4% of rural homesteads have bank accounts. The fact that there are so many bank accounts, however, provides no proof of the affordability of the water fees, because women in Swaziland have the legal status of minors and are not allowed to open a bank account, unless they are salaried employees, which few rural women are. Hence, the large number of rural households with bank accounts only reflects the fact that male household heads have accessibility to cash; it gives no indication of the status of women's income.

Therefore, in order to determine the affordability of the O&M costs, a more realistic approach for a water project to follow would be to carry out field studies specifically directed at women

to determine who would be responsible for paying the water fees and whether they have sufficient revenue to do so.

The EDF is not the only donor who has used this approach in determining the economic feasibility of the recurrent O&M costs. USAID used a similar "gender-blind" argument which implicitly assumed that men would be responsible for paying the water fees in the preparation of its rural water and sanitation project. Preparing water and sanitation projects which accurately reflect the actual situation in a project area requires the collection of baseline data reflecting the socio-economic distinctions between men and women, namely:

- the roles and responsibilities of men and women in the supply, management and use of water
- the revenues and expenditures of each sex
- the amount of time devoted to water-related activities
- the gender division of tasks and the amount of time available to carry out project activities.

4.2.2 Role of Women in Project Design

There is a contradiction in the conception of women's roles in the Lomé II and III projects. On the one hand, women are conceived as the beneficiaries of the improved water supplies and on the other hand, they are supposed to be the "producers", earning the cash to pay for the operating costs of the water system to ensure its functioning.

Women are identified as housewives and mothers, the consumers of water who will benefit from a plentiful and convenient source of water to carry out their domestic tasks. The water they collect is only to be used for their "reproductive" domestic water-use activities (see Subsection 4.1.2).

These domestic activities, however, do not generate an income for a woman. If a woman is to pay for the water fees, she cannot confine herself to the role of a beneficiary, but must assume the

role of a producer and engage in productive activities which will generate an income.

This is where the contradiction lies, because the project's service (improved water supply) is only provided to women for consumption purposes in their role as "beneficiaries" and not for productive purposes in their role as "producers". By denying women the opportunity to use the water for productive activities, the project is denying women the means to generate money to ensure the continued functioning of the supplies.

4.3 Women's Aspects in Implementation

4.3.1 *Women's Aspects in the Implementation of Lomé II*

Women's Participation in the Planning and Design of the Water Supplies

During the planning of the water supplies women were given very little opportunity to participate in the local planning and decision-making concerning the design of their water supply schemes. This was due to a combination of factors. On the one hand, the RWSB technical design criteria and water-use policy precluded women from being consulted as to their water-use needs. On the other hand, the use of a consultant engineer and a commercial construction contractor precluded women's participation in the implementation and installation of the water schemes.

While women were able to take part in the layout of the pipeline and the installation of the water system in other RWSB-implemented water projects, and thereby had the opportunity to take part in the siting decisions for the pipeline and the standposts, this opportunity was denied to women in the EDF project. In fact, when women did try to make known their needs for clothes-washing facilities, no attempt was made to incorporate such facilities into the design of their water supply scheme.

It appears that women did try to provide information based on their knowledge of the local situation and environment to the Consultant Engineer during his laying out of the pipeline and siting of the standpost, but their help was refused.

Had the Consultant Engineer listened to the women, he might have been able to avoid, in two instances, siting a standpost in the middle of a soccer field that was still in use. In one of these instances, the standpost was also situated in the line of a cattle-path leading to the cattle's watering hole. Consequently, the cattle tread on the standpost apron every time they walk to and from the pond.

Women's Role in Community Management and Maintenance

While in some communities women were selected to be water committee officers (in one community a woman was elected chairlady, in a second community a woman served as vice-chairlady and in a third community there was a woman treasurer), in the majority of the communities the local management groups set up during the initiation of the Lomé II project were composed mostly of male local authority figures and leaders (see Subsection 4.1.1). In general, these water committees comprised five male officers and one or two female members.

Maintenance tasks were also assigned to men, as the operation and maintenance of a water supply scheme was clearly identified as a male task.

The consequences of women's lack of participation in the public management of the water supplies are illustrated by the following case study of the community of Mliba.

At the time the water supply scheme was put into operation in Mliba, in 1987, no community management structure had as yet been established. The water supply scheme actually served two communities - Mliba and Kapuka - each of which was under the authority of a separate chief. Rivalries between the two chiefs had meant that

the consensus necessary to establish a water committee capable of administering the water scheme had not been reached.

These two communities are situated in the northern Manzini region, an area undergoing economic crisis, where drought conditions prevail. In particular, these communities are characterized by a large number of female-headed households without male wage-earners and male-headed households in which the men are unemployed. In both types of households, the women provide the sole source of financial support. Together, these two types of households comprise the "poor" and "very poor" segment of the communities' population.

The water supply scheme serves a primary and secondary school, a clinic, the police station, a cattle-dip station, various shopkeepers and all the homesteads of the two communities. During the first two years of the water scheme's operation, when no community management structure existed to collect water fees and administer a maintenance fund, the institutions served (police station, schools and clinic) took it in turn to pay the operating costs.

Recently, however, a water committee has been organized to carry out the public management of the water supplies and institute a financial management system, whereby all the users will contribute water fees. This local management group is composed of one local male community leader and representatives from the police station, clinic, cattle-dip station, school committees and shopkeepers.

Notably absent from this committee are women representing the small consumers - the individual homesteads - in particular the disadvantaged category of female-headed households and households without wage-earners. The only woman on the committee, the headmistress of the primary school, represents the school's and teachers' interests.

The first item on the agenda of this newly constituted committee has been to determine the tariff policy and monthly water fees for the various types of consumers/users of the community water supply.

The negative consequences of the lack of women's participation in the water management decision-making can be seen in the tariff policy recently proposed in which the needs of the small consumers, particularly those of women, have been completely overlooked.

The institutions served by the communal water supply will be charged a monthly fee of E 100, or E 1,200 annually. Large consumers (e.g. shopkeepers) will be charged a monthly fee of E 10, irrespective of the amount of water or the purpose for which it is used. Cattle owners will be charged E 2 monthly or E 24 annually for the use of the cattle dip.

The small consumers, the homesteads, will pay a monthly fee of E 2 for water collected for purely domestic purposes. Parents with children attending school will pay an additional annual amount of E 3 per child, to cover the child's water use while at school.

Up until now, women have been using the tap water not only for domestic purposes, but also for productive purposes. The women stated that they used the tap water for, amongst other purposes, brewing beer and cultivating vegetable gardens. Part of the vegetables grown were consumed by the household for nutritional purposes, while proceeds from the sale of the remaining vegetables and the beer were used by the women to pay for household expenses.

However, the women felt that the newly proposed tariff policy could change all this because in future, if a woman collects water for any purpose other than for purely domestic uses, she will be charged an additional monthly fee of E 10, the same rate as the large consumers, for the excess water collected, irrespective of the amount.

Many of the women interviewed disagreed with this tariff policy and objected to the fact that they had not been consulted by the committee prior to its policy-making. The women pointed out that a large number of the income-generating activities which they engage in to earn money (brewing beer, vegetable gardening, etc.) depend on a plentiful and convenient supply of water.

It is these very activities which would generate the income the women would use to pay their monthly water fee. However, if the new tariff policy is put into practice, they would never be able to afford to pay the additional E 10 fee charged to "large consumers". Hence, in future, they will probably no longer be able to carry out a large number of the income-generating activities which, until now, have provided them with a means of revenue to support their families.

During her visit to Mliba, the Consultant saw this tariff policy in practice. Two men came by truck to fill two large containers holding 360 litres of water, which was to be used by their mother who prepared meals for the prisoners at the police station. In total, the men collected 1,440 litres of water per day. Their mother, a cook/shopkeeper, paid a monthly fee of E 10 for the consumption of some 43,200 litres of water.

In future, if a female household head for example wishes to collect an additional 100 litres of water per week (400 litres per month) to prepare millet beer, she will be charged the same monthly fee as a shopkeeper who consumes 43,200 litres of water.

Effectively then, under this tariff policy, the smaller consumers will be subsidizing the larger consumers. The water committee has established a policy which disregards the interests of a large segment of the community it is supposed to represent. A direct result of the non-participation of women in the decision-making and public management of the water supplies is that a policy may be adopted which does not take into account the needs of the smaller consumers, principally those of the women.

Women's Financial Participation in the Operation and Maintenance Costs

As discussed earlier (see Subsection 2.3.3), under the Lomé II project the communities have had the financial responsibility of establishing a maintenance fund and ensuring that there are always sufficient funds available to cover the recurrent O&M costs,

including the cost of minor repairs and spare parts (see Subsection 2.3.2). In order to provide adequate liquidity to the maintenance fund, the communities' water committees collect monthly water fee contributions on a homestead-to-homestead basis. The water fee to be paid by each homestead is determined by the community and water committee on the basis of the number of homesteads/households as well as the anticipated O&M costs of the water scheme.

The field work reveals that the recurrent monthly water fees for communities served with a diesel-powered water scheme vary from E 2 to E 4 per homestead, whereas the monthly water fees for communities with an electrically powered water scheme vary from E 2 to E 3.50 per homestead. One factor which increases the water consumption and corresponding operating costs for many of the communities is the widespread usage of the water by non-community members. Communities (some six in total) whose standposts are situated alongside a road are confronted with the problem of non-community members coming in trucks and pick-ups to load up containers of water ¹⁾.

Before discussing the field work's findings, it is relevant to recall the baseline data indicating the percentages of female-headed households and the extent of male labour migration.

Some 53% of all rural households are headed by women (in 30% of the cases the husband is an absent wage-earner; in the other 23% women are heading the household de jure).

Moreover, 35% of all rural households do not have a resident male. At least 68% of all rural homesteads have absentee workers, husbands in 30% of the cases, who do not return home for long periods of time (see Subsections 3.1.2 and 3.1.3).

An additional category of households for which no data are available are those male-headed households in which the husband

1) Although a USAID project community was included in the field work, its water scheme is gravity fed, so the community must only cover the - considerably lower - costs of the minor repairs.

resides at home but is unemployed, meaning that the wife must provide all financial support for the family from her income-generating activities.

The field work carried out in the EDF communities and the ODA project community provided very similar results with regard to maintenance dues. On average, homesteads are paying a monthly water fee of E 3 in communities served with an electrically powered system and E 3.50 in communities served with a diesel-powered system.

According to the gender division of financial responsibilities between husbands and wives, the latter are usually responsible for paying all the household expenditures for the welfare of the family, e.g. for food, clothing, medicine and school fees (see Subsection 3.1.8). In the majority of households interviewed, the recurrent monthly water fees fall under this category and, as such, are viewed in principle as the women's financial responsibility. While the husband may contribute to this cost, this is considered his prerogative and such a contribution is therefore more of a gift than an obligation on his part.

The picture which emerges from the field work findings is that in those male-headed households where the husband either resides at home and has a source of revenue or is an absent wage-earner but returns home frequently, he usually contributes to the family's household expenditures budget. He may also pay the monthly water fee or share the financial responsibility with his wife (for example paying it in alternate months).

For those de facto female-headed households in which husbands are away for long periods of time, the situation is different. The husband retains full control over the allocation of any remittances sent home and the majority of the women interviewed said that if the husband made contributions to household expenditures these fell into the category of gifts and could not be considered as a reliable means of family support.

The women indicated that they could not depend upon their husband's remittances as a source of revenue to pay the monthly recurrent water fees, because the remittances were either insufficient or too irregular. As access to and use of the communal water supply depended upon a homestead's regular payment of its water fee, the women felt it essential that they try to generate their own source of revenue and be as self-sufficient as possible in paying for this expenditure.

The last group of women interviewed represented those households where the women must provide the sole source of financial support and pay for the water fees from their own income. There are three categories of household in this group: those in which the women are de jure heads, de facto women-headed households where the absent husband provides no remittance for the family's costs and male-headed households in which resident husbands are unable to work.

In total, women have the sole financial responsibility for paying the recurrent O&M costs in some 40% of the households in all the communities visited. This percentage fluctuates somewhat with the district, according to the level of male labour migration, the unemployment rate and the degree of local economic opportunities.

The affordability of the recurrent O&M costs for the women is illustrated in the following two case studies, one from an EDF project community and one from an ODA project community, both in the Shisleweni district.

In the first community, Mahamba, an EDF project community whose electrically-powered water scheme has been in operation since 1985, the water committee, which has a majority of women members, has set the water fees at E 3.50 per month. All the eight women interviewed, four of whom were committee members, have had difficulties in paying the monthly water fee.

They stated that as they have introduced a lockable tap system, whereby access to the tap is only permitted to those homesteads who pay the monthly fee, each of them had not been able to afford to

use the communal water system for at least one to two months during the preceding year.

In the ODA project community of Mbukwane, whose electrically powered scheme has been in operation since 1984, monthly water fees have been set at E 3 per homestead. During the system's early years of operation, the water fees had been set at E 1.30 per month, but as the electricity and maintenance costs have progressively risen, the need has increased to raise the water fees in order to cover the higher O&M costs. Of the 18 people present at the meeting, 11 women and 7 men, 11 (61%) could not afford to pay the water fee during at least one month in the preceding year.

The sampling revealed that 9 of the 11 women present (81%) could not afford to pay the O&M costs during any given month of the preceding year. Out of the 7 men, all of whom assumed partial financial responsibility for the recurrent O&M costs, 2 (29%) could not afford to pay the water fees during at least one month in the preceding year.

Mbukwane has also introduced a lockable tap system, so all the above-mentioned households who could not afford to pay the monthly water fee were not permitted access to the communal water supply system during that given month.

In the remaining four EDF communities visited where the lockable tap system has not been introduced, there is open access to the water supply system to all community members. Two of the four communities (Sifuntaneni A and Mliba) exposed the problem of the limited financial resources of a large number of the communities' households and their consequent inability to afford the monthly E 2 water fees.

In one community approximately 30% of the households could not afford to contribute E 2 per month to the maintenance fund in any given month. The majority of this segment of the community's population were de facto or de jure female-headed households.

In another community a similar situation exists; many of the households with limited financial resources could not afford to pay the monthly contribution of E 2. Here again, the majority of these households are either female-headed or households in which the man is unemployed. Hence, the woman must provide the sole source of income for the family.

In both these communities the water committees have responded to this situation of a limited availability of cash to cover the O&M costs by severely restricting water usage so as to permit a limited quantity of water to all households.¹⁾ As a result, the per capita water consumption is approximately 5-10 litres per day, far below the target of 25-30 litres set by the RSWB.

The findings underline the importance of exploring avenues to increase the income-earning capacities of the women in all communities served with an improved water supply in order to ensure the sustainability of the supplies, all the more since it should be emphasized that the recurrent costs will progressively increase as the systems age.

Under the Lomé III project the RSWB's new policy has been applied. In order to qualify for project selection, a community must first establish an initial maintenance fund containing a minimum of E 1,000 and subsequently replenish it on a monthly basis in order to cover the recurrent O&M costs.

In the two Lomé III communities visited which have a maintenance fund of at least E 1,000, the water committees organized the collection by asking a pre-set contribution from every homestead. In the community of Bushayan Komo the initial contribution exacted per household was E 50 and in Mavula it was E 30.

In both communities, this initial contribution is viewed as a capital investment towards obtaining a community water supply

1) Mliba, which has opted for the policy of households' restricted water consumption in order to reduce its operating costs, is also faced with the problem of non-community members drawing large quantities of water from the roadside communal standposts.

scheme. Hence, as such, this expenditure is considered as being principally the male's or husband's financial responsibility. Only in those homesteads/households where the husband's revenue or remittances are insufficient to cover the entire amount, has the wife (wives) financially participated by providing part of the initial contribution.

In those households in which women provide the sole means of financial support to the family, they are expected to pay the full contribution within the pre-set time limit themselves.

The findings from the three household interviews carried out in the community of Mavula illustrate the above. In the first household, the husband, a wage-earner employed at a nearby forestry company, had sufficient revenue to pay the entire E 30 himself. In the second household, the husband is a truck driver whose earnings are not sufficient to pay the full E 30. Hence, he contributed E 20 and his wife E 10. In the third household, the woman was the sole breadwinner for the family, as her husband was blind and did not work. She paid the E 30 from her earnings as a dressmaker.

For this last category in particular, the relatively large amount of cash which must be paid in a relatively short period has proven to be a very difficult financial burden upon the women. As the sole breadwinners for the family, from their limited income-generating activities they have to pay not only such monthly costs as school fees and food, clothing and medical expenses for the entire family, but also the relatively large amount of E 30/50.

It must be pointed out that the newly-introduced criterion of only selecting those communities which are capable of collecting the E 1,000 within a certain time implicitly favours the economically-advantaged communities with households of a relatively high degree of economic prosperity. Communities with a large proportion of households economically dependent on women will obviously have greater difficulty in qualifying for project selection.

This initial contribution also proved to be problematic for households with an absent male wage-earner. Although this expenditure was generally viewed as the man's financial responsibility, the wives did not have the authority to allocate the husband's remittance to paying for the homestead's contribution, without first receiving his explicit permission.

The remittance money could only be spent on prearranged expenditures, according to the husband's instructions. As this maintenance fund contribution was a newly-introduced expenditure, the women could not use the remittance money to pay for it without first consulting their husbands.

In those cases where the husband made weekly, fortnightly or monthly visits home, the women had the opportunity to consult him and make the homestead's contribution within the time limit set by the water committee.

For the women, however, whose husbands were absent for months at a time, this meant waiting several months before they could obtain permission. Such delays created many problems for the water committees in collecting the E 1,000 within the time limit to qualify for project selection. The alternative for women was to travel long distances to the husband's place of work (in some cases to the mines in South Africa) to obtain his permission.

Women's Participation in Training Activities

During the four district training workshops held so far (all of which were carried out in 1989), almost half of the participants have been women (see Subsection 4.1.2).

The skills training provided has been very beneficial to those women who attended, if the performance of the women managers in the communities in the Shisleweni district is anything to go by. In addition to acquiring financial management and administrative skills, the women interviewed had also acquired confidence in their own ability to identify problems and formulate workable solutions

based on their own situation (see Subsection 4.3.2). It is this capacity that will enable a community to become self-reliant in carrying out its management and maintenance responsibilities.

According to some of the women who attended the Shisleweni workshop, the female participants played a strategic role in proposing a workable solution to the problem of "non-payers" and that of strangers using the taps with the resulting insufficient liquidity of the maintenance fund to cover the high operating costs.

As it was the women who were forced to walk the long distances to collect water from an alternative source when the water scheme was not functioning, they felt the urgency - much more so than the male participants - to work out a solution to the non-functioning of the supplies resulting from the insufficient liquidity of the maintenance fund.

With regard to the organization of the training workshops, a point raised by the women was that it had been difficult for many to attend the workshops. A week-long training course held at district level requires a long absence from home. Many of the women are heads of households and cannot leave the children or family alone for such long periods of time.

The women felt that not enough attention had been paid to women's special needs in the organization of the training workshops. Training courses requiring week-long absences from home represent an obstacle to many of these women. In order to promote women's attendance at such training courses, therefore, it is important to take women's needs into account (short duration, convenient location) when organizing them.

4.3.2 Changes in the Level of Women's Participation During Lomé II

If the level of women's participation in the management and maintenance of the supplies is examined in the district where the water supply schemes were installed first and have been in

operation the longest (in the Shisleweni district the water supplies were installed in 1985), a markedly increased level of women's participation can be observed.

This has not occurred as a result of instigation from the community development worker, but rather in response to a self-perceived need on the part of the men and women in the communities as a whole.

After witnessing three to four years' of their water committee's management capabilities, the communities recognized that their water committee members were ineffective in organizing and administering the maintenance fund and were unable to ensure a reliable operation of the water supplies. The community members then requested the assistance of the community development worker in identifying those persons who would be the most effective managers in their reorganized committees. The communities have now identified women to carry out the public management of the supplies.

In the two communities of Mahamba and Madvulini which were visited during the Consultant's field work in this district, where this process has taken place, women are playing a very active role in the management of the water supply system. In the community of Mahamba, the committee is now almost entirely composed of women. These women have played an instrumental role in revising the financial management scheme so that the water supply system, after a long history of operating intermittently, is now functioning without interruption.

In Madvulini, the all-male water committee was dismissed for misuse of the maintenance fund. There was no sort of financial management system providing accountability for the water fees collected, as the officers (chairman, secretary and treasurer) had not kept a record of the incoming money collected or the expenditures. As the money had not been returned, a new committee had not yet been organized at the time of the Consultant's visit to the community.

All the community members - men and women alike - have voiced their lack of confidence in a committee based on male leadership. It is felt that the men in their former committee had "consumed" the fund's money for private use because they had no interest in ensuring the functioning of the water supplies. "Water was not an important part of these men's lives", according to the community members. Moreover, in the opinion of the community, the increased incidence of diarrhoea and other water-related diseases amongst their children was caused by the non-functioning of the improved water supply.

It was felt that women, on the other hand, have a direct stake in improving the water and in ensuring the functioning of the supplies. Moreover, the community feels that they can be trusted to administer the community's funds. Thus, in future they wish women to carry out the public management of their water scheme.

Women have found an interim solution for the present to allow a part of the water scheme to operate, by collaborating with the school. All those homesteads situated in the zone where the pipeline connects to the school have organized themselves into a zone subcommittee. The women in this subcommittee have set up a financial management system whereby tap attendants collect water fees from those homesteads using the taps.

Together, this subcommittee and the school ensure the functioning of this part of the water supply scheme. The taps of the stand-posts in this zone are "locked", and only fee contributors in the zone have "keys" which permit them access to the taps.

The Consultant's conclusions drawn from the experience in this district - that women's active involvement in the management of water supplies leads to an increased level of functioning and sustainability - were confirmed by the community development worker who remarked that it had taken him two years to get the Lomé II project back on its feet and the water schemes to run smoothly in these communities and that most of the credit was due to the hard work of the women.

Women's participation in the management of the supplies has not only increased in the Shisleweni district, but also in the other project areas.

If initially the majority of committees set up in the Lomé II project were composed almost entirely of male leadership, the situation had evolved five years later. According to the findings reported by the EC Delegation's Technical Officer, in 1988, 50-60% of the chairmen, secretaries and treasurers in these same committees were now women.

Nevertheless, although there has been a substantial increase in the level of women's participation - due in part to the efforts of some of the community development workers in promoting women's participation - this has not occurred systematically in all of the communities. To achieve this the RWSB will have to include the promotion of women's participation in the community development workers' terms of reference and task description. In addition, the community development workers will require skills upgrading and further training.

4.3.3 Women's Participation in Implementation During Lomé III

The changes in the RWSB's community participation strategy have had a very positive impact upon the level of women's participation. During the community meeting of Mavula, in the Hhohho district, at which the RWSB Design Engineer initiated a two-way exchange of information with the community about the technical choices open to the community in the design of their water supply scheme (see Subsection 4.1.2), women took a very active part in the discussions.

Moreover, when questioned by the Consultant as to who had been selected as the community's water attendants/operators, their initial response was that only men had been selected. However, when questioned as to who had the greatest stake in ensuring the reliability of the supplies and who had the most residential stability so that they would always be there to maintain the water

facilities, the community members replied that they were going to reconsider their choices of candidates.

The women in particular spoke up and stated that, seen in this light, perhaps they could perform the maintenance tasks and perhaps it might not be such a male domain after all. In any case, the women present at the meeting felt that they could perform the tasks of the water attendants, periodically inspecting the pipelines. Moreover, they could share the operator's tasks with the men. Women could be trained to do the maintenance and minor repairs, while men could do the more heavy work.

In the Hhohho district, for example, there are already many communities in the other donor-funded water projects, in which women carry out the role of the "policing officer" water attendant, while men perform the role of the operators, which involves cutting down trees and digging out trenches in order to reach burst pipes.

The community development worker for the Hhohho district observed that in those communities where women are the water attendants, responsible for detecting any malfunctioning of the system, the performance of the water supply scheme has improved remarkably.

Finally, the fact that the community development workers now have more time to spend in each community on preparing, mobilizing and organizing the community members, allows them to be in a better position to become better acquainted with the members of a community. This is invaluable to them when assisting a community in identifying the real workers and managers for the setting up of the water and sanitation committee. This process is in turn fundamental to the promotion of the participation of women.

In following this approach now in the social preparation of the communities, women are not only playing a more active role (than women had initially played in the Lomé II project), but also play a role in the public management of the water supplies.

Again it should be emphasized that to involve women on a consistent basis the RWSB will need to establish directives which explicitly promote the active participation of women and provide explicit instructions to the community development workers to take measures to do so on a consistent basis. For example, the community development workers can facilitate women's participation during the community preparation phase in various ways:

- by explaining to local leaders why their involvement is needed
- by informing women through the various local communication channels about forthcoming project meetings and encouraging their attendance
- by holding meetings at times and places women can attend
- by organizing meetings in such a way that women can speak out.

4.4 Women's Aspects in Monitoring and Evaluation

No attempt has been made to monitor either the role women play in implementing project activities or whether their participation has contributed to the overall effectiveness of the Lomé II project. Moreover, no monitoring system has been set up to identify the project's actual impact upon women. The project monitoring system used by the Delegation is based on the standard format prepared by the EEC in Brussels and does not include any women's aspects.

The RWSB has not monitored any women's aspects either. The prevailing attitude of the RWSB directors and project management has been to perceive women as the beneficiaries of an improved supply of water, but not as the people instrumental in "producing" the water supply scheme and ensuring its reliability or sustainability. Hence, as women were considered as passive beneficiaries, there was no need to monitor their contribution.

Thus, throughout the implementation of the Lomé II project, the "top" has remained unaware of the extent of and the benefits obtained from women's involvement in project activities. An effective monitoring and evaluation system would have enabled them to closely follow what was going on in the field, and plan and re-

direct project activities accordingly in order to increase project effectiveness.

During the evaluation of Lomé II, no attempt was made to assess whether the water supplies were used by the women as intended, or whether the project had had any positive or negative impact upon women. In May 1988, however, during the appraisal stage of the Lomé III project, the Delegation's Technical Officer collected field data on the percentage of women who hold key management positions in the water committees of the Lomé II communities.

It will be invaluable to the Lomé III project to incorporate effective monitoring and evaluation procedures as a management tool. This will enable the project to carry out step-by-step planning and a careful monitoring of women's and men's participation in the activities as well as evaluate the effects of the project upon the beneficiaries, in particular the women. Such a system will make explicit the logical relationship between the fulfilment of the project's objectives concerning women and the planned activities.

Once the RWSB recognizes that women are a critical resource for the long-term effectiveness of their water and sanitation programme, it should develop organizational mechanisms within its structure to address issues on gender and to monitor practices and the effects of improved water and sanitation upon women.

4.5 Staff Resources

4.5.1 *Institutional Setting*

Very few women are found amongst the staff and field workers of the implementing agencies for the EDF project. At the RWSB's head office, the only women among the staff are in the Public Health Unit. Amongst the field staff, women officers are found amongst the Ministry of Health staff (the Health Inspector and Health Assistants). At the community level of the primary health care

system, the overwhelming majority of the rural health motivators are women. (At a recent training session for rural health motivators, 83 of the 91 participants were women.)

The four male community development workers function extremely well in the predominantly female environment of the communities. However, in the interests of promoting women's involvement at the community level during Lomé III, a serious effort should be made to include some female field workers in the community development staff.

The findings of the Thematic Evaluation of the EDF-funded rural water supply project in Niger have provided concrete confirmation of the fact that the use of female community development workers has a positive influence upon the participation of the women in a community. This is firstly because in many cases they are able to establish a closer rapport with the women and secondly because the presence of a female community development worker can serve as a role model for the community women, encouraging them to take a more active role in the community's management and maintenance of the water scheme.

An additional measure required to strengthen the RWSB's institutional capacity in systematically integrating women in all of its projects is the inclusion in its staff of a female coordinator/advisor position. This person would be responsible for the coordination of the community training workshops.

In addition, she would be responsible for collaborating with other government agencies, donors and NGOs in providing services and inputs to improve the income-earning capacities of the women in the project areas. Setting up and implementing a monitoring system to follow the project's progress and the degree of women's participation would also be part of her task description.

Training of Community Development and Technical Field Staff

In order to promote and support community participation in general and women's participation in particular, it would be beneficial to organize a joint seminar for the community development and technical staff, at which the importance of effective community involvement and women's participation in decision-making is discussed. By combining the different perspectives and skills of the social and technical field staff, this would contribute to a fuller, more integrated understanding of community needs and the complementary nature of the roles of different field staff working as a team.

Once the promotion of women's participation becomes part of the community development workers' task description, further training and skills upgrading should be provided to the community development workers in, i.a.:

- the identification of characteristics (gender, age, power, wealth, residential stability) of those who have a stake in improving and maintaining the water supply
- the formulation of culturally appropriate methodologies facilitating the involvement of women.

By acquiring these skills, the community development workers will be in a better position to actively promote the effective involvement of women in the public management and maintenance of the water supply system.

Training of the Health Field Staff

Most of the Ministry of Health field staff have been trained by directive methods and may have difficulty in changing over to a non-directive style of health education, without going through a retraining process. To assure that the health staff can function as facilitators, it will be necessary to provide them with the opportunities to experience the facilitative or participatory process in their own training, in a learning-by-doing situation.

In this way they can gain a deeper understanding of how the new strategies work and how they can be applied at the community level.

Therefore, in order to increase the effectiveness of the health staff carrying out health education in the Lomé III communities, it would be beneficial to organize a seminar for them which provides them with such opportunities.

Recently, the health staff have been provided with appropriate water and sanitation visual aids. However, they still lack the necessary transport (and funding to cover the vehicle's running costs) to be able to intervene on a regular basis in the communities served with improved supplies.

Each of the project's communities, however, has a resident rural health motivator, a community member chosen by the community to provide curative and preventative primary health care. These women and men follow a 12-week training course which covers, amongst other subjects, community development techniques and water- and sanitation-related health education.

The RWSB and the Lomé III project could draw upon this local resource to assist the health staff in providing regular inputs of health education to the communities served with improved supplies, in particular the women.

In order to increase the effectiveness of the rural health motivators' interventions, it will be necessary to revise their training curriculum to include more specific information as to their role in promoting community management and maintenance of the water supply system. It may also be necessary to include training skills in the facilitative/participatory approach to health education in their training curriculum.

In addition, they should be provided with health education materials and visual aids which are appropriate for use outdoors in the community setting.

4.5.2 Role of Technical Assistance

The consultant engaged to provide technical assistance to the RWSB during the Lomé III project has a strategic role to play in ensuring that effective community participation, in particular women's participation, takes place.

Moreover, he should be responsible for integrating the social and technical components of the project. In addition, he must ensure that the health education materials and training of the community members are appropriate in order to achieve project success. While the present consultant is technically proficient, he has no background or experience in any of the above-mentioned areas which are so vital to Lomé III's effectiveness.

As this type of expertise is necessary during the implementation of the remainder of the project, the Consultant considers that additional short-term female technical assistance to backstop the RWSB and the project is required.

Moreover, given the very instrumental role this technical assistance has to play in promoting the role of women in the project, it would be beneficial if the expert has practical experience in this field. This expert could also assist the female coordinator on the RWSB's staff in designing and setting up a system to monitor WID aspects throughout the project.

4.5.3 Role of EEC Staff with Regard to Women in Development

During Lomé II's implementation, the EC Delegation in Mbabane overlooked the differences between men and women with regard to rural water supply. Consequently, no effort was undertaken to monitor female participation. In general, the Delegation was rather passive in issues regarding women. The EC rural water sector's "Basic Principles" and the "Manual for Preparing and Appraising Project and Programme Dossiers" appeared to have played only a limited role in preparing and evaluating the project.

During the appraisal carried out for Lomé III, however, the Delegation has made an effort to quantitatively evaluate the degree of women's participation in the public management of the water supplies installed under the earlier project.

Furthermore, on the basis of the findings of the present evaluation mission, the inclusion of a WID element in the ongoing project will be considered.

5. ASSESSMENT OF THE IMPACT OF THE PROJECT

5.1 Functioning and Utilization of the Improved Water Supplies

5.1.1 *Performance of Improved Supplies*

Without a continued functioning and an effective, sustained utilization of the water facilities, an economic, social and health impact cannot be attained (see Subsection 4.1.1). Therefore, before assessing the effects of the project, it is first necessary to examine the actual performance and use of the improved supplies.

It should be recalled that the performance and functioning of the facilities depend upon a combination of factors:

- the quality of service offered by the RWSB in carrying out maintenance and major repairs
- the effectiveness of the community-based management and maintenance system
- a viable community financing scheme to cover the recurrent O&M costs.

Prior to the Consultant's mission (July/August 1989), two earlier evaluations of the performance of the water schemes installed by the Lomé II project have taken place. At the time of the appraisal mission for the Lomé III project, a concurrent evaluation of the Lomé II installations revealed in October 1987, that 6 of the 11 schemes installed (55%) were found to be functioning. During an ex-post evaluation carried out in August/September 1988, 7 out of a total of 12 schemes were operating at full capacity, and a further scheme was in partial operation, providing water to one of the two communities it was planned to serve. In all, therefore, 62% of the water supplies were functioning as planned.

During the Consultant's mission, six EDF water supply schemes were visited and reports were used to establish the state of functioning of the remaining six EDF schemes.

The results indicate that 8 of the 12 schemes were functioning as planned, while an additional 2 schemes were only functioning at partial capacity. In all, some 75% of the EDF schemes were found to be functioning ¹⁾.

With regard to the sanitary conditions of the water points, the Consultant's field visits to 6 of the EDF water schemes revealed the public standposts to be hygienically maintained in three communities. However, unsanitary conditions (blocked drains, dirty footstands and stagnant pools of water) were found at standposts in two communities ²⁾.

Although in principle, the maintenance and upkeep of the standposts is the water attendant's responsibility - a position held by men in all the communities visited - the attendants are not carrying out this task. In all three communities where sanitary conditions around the water points are maintained, women have voluntarily organized themselves to assume responsibility for this task.

Overall, the conclusion of the first two evaluations was that the low level of functioning of the water systems was attributable to the difficulties communities faced in properly organizing their financial contribution towards the water scheme's operation costs. Inadequate community mobilization was seen as the cause of the operational difficulties.

While this is certainly one of the important factors, a closer examination of the findings of the three evaluations reveals that a combination of factors occurring at different stages in the project cycle has contributed to the non-functioning of the water supplies. A summary of these findings is found below.

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- 1) The water supply schemes in both the USAID and ODA project communities visited were found to be functioning.
 - 2) In one of the six communities, the water scheme was not in use and has been out of operation for over a year

Planning and Design Phase

- Lack of initial community analysis: some of the installed water supply schemes actually serve two to three different communities, each part of a different chiefdom. Chiefs and communities were unable to reach agreement on the creation of a water committee and the operation of water supplies and there was a general lack of consensus. This factor contributed to the non-functioning of 3 out of the 12 water schemes (25%).
- Poor design and siting of the water supply scheme: the women, in particular, were not consulted on siting decisions. In six communities, communal standposts were situated alongside roads. Non-community members in trucks and pick-ups can fill containers with water from the standposts, which increases the water consumption and the corresponding operating costs. In one community the diesel generator situated alongside a road was stolen. Incorrect siting of the standposts/generator has contributed to a restrictive water consumption policy or to the non-functioning of water schemes in a total of seven communities (58% of the water schemes).

Implementation Phase

- Community-based operation and maintenance: the insufficient liquidity of the communities' maintenance funds to cover the O&M costs resulted in the non-functioning of 5 out of the 12 water schemes (42%). Several factors have contributed to this situation:
 - . the unwillingness on the part of some community members to pay water fees due to: the communities not being informed of their financial participation's responsibilities during preparation; the lack of confidence in the management capacities of the water committee (committee members lack management and bookkeeping skills); communities being demotivated by the fact that the water is also used by non-paying community members and even by non-community members;

- . the inability of some segments of the community - in particular female-headed households - to contribute due to lack of financial resources;
- . the financial mismanagement of the maintenance fund;
- . the inadequate repair service carried out by the RWSB. One community informed the RWSB depot of a burst pipe, but the long delay on the part of the RWSB in repairing the pipeline resulted in a two-week breakdown, during which time the water scheme was functioning at partial capacity.

In general, during the past three years there has been a progressive improvement in the performance and functioning rate of the water facilities. This has been due to efforts made by the RWSB and its community development staff to provide skills training to the water committee members followed up by community exchange visits as well as to initiatives taken by the communities themselves, in particular the women, to improve the effectiveness of the community-based management and maintenance system and the viability of the community's financial management system. The community development extension staff have worked closely with community members in "rehabilitating" some of the communities by assisting them in reorganizing their management committees.

In two of the communities visited (see Subsection 4.3.1), the improved rate of functioning of the water schemes can directly be attributed to the effective involvement and participation of women in the management of the supplies. Women carrying out the community management have introduced an effective decentralized subcommittee system, regulating access to the water on the basis of a lockable tap system. Moreover, based on the skills acquired during the training workshops, these women have introduced a financial management system with a built-in checks-and-balances system which provides accountability to the community members.

A problem which still remains unsolved for all these communities and which affects the viability and long-term sustainability of the project, is the communities' tariff policy and the problem of the

inadequate financial resources of the poorer community members, in particular the female-headed households.

In order to ensure the liquidity of the maintenance fund, which in turn will ensure the continued operation of the supplies, all the communities will eventually have to regulate access to the communal water supply, allowing only those who are actual fee contributors to use it, thereby excluding the poor from access.

This will mean that, during any given month, a segment of the population will be denied access to the improved water supply because of their inability to pay the water fees. At present the water fees are paid on an individual homestead basis and not, as in several other West African countries, on a collective basis, from, for example, the proceeds from the sale of a collectively cultivated crop.

All the communities interviewed stated that while they would like to permit free access to the tap to the poor and very poor households of the community, they cannot afford to do so. The reason for this is that the majority of the homesteads are faced with the problem of limited financial resources. Consequently, they would be unable to provide sufficient capital to cover the O&M costs if they allowed non-paying community members free access to the water supply on a regular basis.

5.1.2 Viability of Operation and Maintenance Costs

Originally, the annual O&M costs for a community of 1,000 people, or 100 households, were estimated to be in the range of E 20-27 per household (see Subsection 2.3.2). At the time of the appraisal for the Lomé III project, households were found to be contributing E 24 annually. This amount was considered to be within the communities' capacity to pay and therefore the O&M costs were considered viable.

The Consultant's more recent findings reveal, however, that while some communities have set the monthly water fees at E 2 (E 24

annually), this amount does not provide sufficient funds to cover all the water scheme's O&M costs.

The findings reveal that in August 1989 the majority of the communities raised the water fees to an annual amount of E 36-42 in order to provide adequate liquidity to the maintenance fund to ensure the continued functioning of the water facilities.

In general, the communities' actual O&M costs include:

- the monthly energy costs to operate the water supply scheme on diesel fuel or electricity;
- the purchase of spare parts to replace taps and valves;
- a monthly payment to the pump attendants;
- travelling costs for the committee members or water attendants to deposit or withdraw the maintenance fund at the bank, alert the RWSB district depot of a breakdown, pay the electricity bill or purchase diesel fuel or spare parts;
- an optional cost which many communities have undertaken to increase the reliability and continued functioning capability of their water scheme; this cost covers the purchase of additional equipment such as a spare diesel engine or a reserve pump to replace the broken equipment and prevent unnecessary delays;
- an additional optional cost for the purchase of new "lockable" or removable taps for all the standposts so as to restrict access to paying community members only.

An annual collection of E 24 will only permit a community to pay for the minimum operating costs and minor repairs. This amount does not cover the operating costs necessary to provide a per capita water consumption of 25-30 litres/day. For this reason those communities which have limited the monthly fee contributions to E 2 have also instituted a restrictive water consumption policy for household consumption.

On average, homesteads are paying a monthly fee of E 3 when served by an electrically powered water scheme and E 3.50 when served by a diesel-powered scheme (see also Subsection 4.3.1).

However, several of the communities already visited anticipate having to raise the fees to E 4 in the near future in order to cover the expected rise in energy costs and higher maintenance costs, due to depreciation, as well as to provide the capital to purchase a spare pump or reserve diesel engine.

Up until now, the RWSB has been able to finance its share of the repair and maintenance costs. Nevertheless, this financial responsibility will soon become too great, as existing schemes depreciate and new water schemes are added. Hence, in the near future, the RWSB has plans to decentralize its maintenance service and set up a maintenance/repair division in each of its four district depots.

Once the district maintenance divisions are operational, the RWSB plans to increase cost recovery by transferring part of the costs of its repair service - which until now have been provided free of charge - to the rural communities.

In future, when a community alerts the RWSB district depot of a breakdown requiring a major repair, e.g. a burst pipe or a pump or generator breakdown, the community will be charged a fixed rate per kilometre to cover the running costs of the RWSB vehicle: E 0.40/km for a lightweight vehicle, E 0.80/km for a four-wheel-drive vehicle and E 1.00/km for a truck. The RWSB's labour costs for the repair will still be free of charge, but the community will have to provide all the necessary spare parts and oil, as well as cover the transportation costs.

These costs will only increase the already high recurrent O&M costs the communities are now paying. It is questionable, given the communities' present limited financial resources, whether the unavoidable increase in O&M costs will remain viable in future, unless a concerted effort is concurrently made to increase the income-earning capacities of the communities, in particular the women.

The RWSB's long-term goal is one of maximum cost recovery, which will entail transferring all costs to the communities so that in future they will be responsible for paying all operation, repair and replacement costs. Again, unless the income-earning capacities of the women, in particular, substantially increase, these costs will be unaffordable to an ever greater segment of the communities.

5.1.3 Utilization of Improved Water Supplies

The objective of the Lomé II rural water supply project is to supply the population with a sufficient quantity of safe water for domestic use (25 litres per capita per day) within a reasonable carrying distance (200 m) of the homestead. The water is intended for human consumption and for cooking, washing dishes, bathing and laundry. The majority of women interviewed felt that the improved water supply facilities met their needs with regard to the quality of the water and its taste, the accessibility of the standposts and the ease of use of the standpost taps and their upkeep.

While the standposts were in general situated within a reasonable distance of the homesteads, the location of some standposts was not found to be optimal. Many of the women complained of the fact that they had not been consulted or involved in the siting decisions.

The women also remarked that caretaking and regulating access to the standposts proved very difficult when they were situated alongside roads. Moreover, the passing vehicles often made water collection a hazardous activity, particularly for children.

While not considered hazardous, the standposts situated in soccer fields were found to be very inconvenient during the afternoon water collection when the fields were in use.

Although no preliminary baseline data were collected during project preparation concerning the level of water consumption before the installation of the improved facilities, the Consultant did attempt to reconstruct women's water-use behaviour. On average, women would collect water from springs, streams or rivers twice a day, in

the early morning and late afternoon. On each trip they would collect water in a 20-litre open metal container which they carried on their heads.

In cases of larger households, women would make two trips in the morning and one in the afternoon. On average, women collected 40-60 litres of water per household of 7-10 members. The daily per capita consumption averaged 5-10 litres.

In general, the collected water was used for drinking, cooking, washing dishes and bathing, in particular for the men, as when water was scarce the women and children would bathe at the source itself. The women usually washed clothes next to the water source so as to lessen the workload of carrying water to the homestead.

With the coming of piped water, 25-litre plastic containers with narrow necks and screw tops came into use, and as they do not spill they can be carried, at least two at a time, in wheelbarrows. Some of the women interviewed used a wheelbarrow to collect water from the standposts, others carried the closed containers on their heads.

The level of water consumption using the improved water supplies was found to vary according to the community. In three communities where the water committee has not restricted water use to domestic consumption, the women whose homesteads are situated very close to the water points stated that they went to the tap so frequently that they no longer kept count. Those women living further away said they usually made several daily trips themselves, collecting a total of 150 litres of water.

In some households children assisted the women by using a wheelbarrow to collect water in the afternoon. In such cases the women made an average of three trips in the morning and the children would collect some 2-4 containers of water in the afternoon after school. On average, depending on the size of the household, the homesteads consume 150-200 litres of water per day for drinking and

domestic use. The daily per capita water consumption ranges from 20-30 litres.

The principal change in water-use patterns that the women in the communities mentioned, is the increase in the quantity of water now available for their various domestic water uses. Women and children no longer have to bathe infrequently (once a week) or at the river, as the presence of improved water supplies now permits them to bathe daily and improve their personal hygiene.

Moreover, women are also able to use the water supply for washing clothes, either next to the standposts or at the homestead. Some water committees have established regulations forbidding the washing of clothes in the proximity of the standposts, so as to prevent the formation of stagnant pools of water.

The women felt that although the benefits the water facilities provided were incontestable, these benefits could have been maximized had clothes-washing facilities (laundry troughs) been constructed alongside the standposts. Several of these women had been to other communities and seen how such laundry facilities were constructed with proper drainage canals next to the water points.

Moreover, all of the women stated that they were not able to make optimal use of the improved water supplies because the water had been restricted to domestic use by the project. The women felt that if they were allowed to use the water for productive purposes, e.g. vegetable gardening or brick making, they could maximize the water's economic benefits, which at present they are unable to do.

While there has been a very definite increase in the level of water consumption in these aforementioned communities, no change concerning increased water consumption was noted in the two communities in which the water committees have tried to reduce water consumption by restricting domestic water use.

One community has restricted its water use to drinking, cooking and washing dishes, so that the women are obliged to continue using

contaminated, traditional water sources for the family's bathing and laundry needs. From a reconstruction of the water-use patterns before the installation of the improved facilities, it appears that the daily per capita consumption in both communities was 5-10 litres.

After the installation of the improved supplies, the daily per capita consumption remains at 5-10 litres. For one community the Consultant was able to make exact calculations, based on the water consumption data provided by the 1988 ex-post evaluation of the EC Delegation. During a 28-month period (May 1986 to August 1988) the community of 500 inhabitants (Sifuntaneni A) consumed 2,000,000 litres, or a daily per capita consumption of 4.8 litres of water.

Thus, as far as reaching the project goal of a continued, sustained utilization of the improved water supplies is concerned, it appears that the project has been successful in some of the communities, as the women interviewed have become accustomed to using piped water supplies, and changed their water-use habits, aware of the resulting benefits.

In those communities where the water scheme has been out of operation, the women stated that only when there was absolutely no alternative, did they revert to using the traditional water source for drinking, cooking and washing dishes. Whenever possible women tried to get assistance from their husbands to travel by vehicle to a nearby town to collect water; in one case they even went by bus.

The success of reaching the goal of a sustained utilization of the improved water supplies needs to be qualified, however, by the fact that in two of the communities visited, during any given month some 30% of the community cannot use the water facilities at all, because they cannot afford to pay the monthly water fee.

This means that the project is not reaching its optimal goal of providing safe water to all community members. Moreover, the goal of sustainable effective utilization is not realized, as in some

communities the women are obliged to continue using contaminated water sources for part of their domestic water use.

5.2 Effects on the Position of Women: Workload

The availability of an improved water supply within a reasonable distance of the homestead (on average 200-400 m) has resulted in a time and labour saving for the women. Before the introduction of improved supplies women spent anything from 2-6 hours collecting water from polluted water sources located up to 6 km away. Now, for those women who have access to the new water points, a reduction of 2 hours and in some cases up to 5 hours in the time needed to collect water has been noted. On average, women are able to save 3-4 hours a day.

According to the baseline data (see Subsection 3.1.7), rural women generally had a 16-hour working-day on the homestead, 4 hours of which were spent on water collection. The field work revealed that women now spend approximately one hour a day on water collection, collecting water from the standposts, meaning that 3-4 hours (20-25%) of a woman's working-day is now saved.

Many women remarked, however, that they could save a lot more time if they had laundry troughs next to the standposts to wash clothes in, instead of making several trips to carry water from the tap to their homes as they must do now. Part of the time they do save is spent collecting additional quantities of water; as already discussed, water consumption generally doubled or tripled when regular access was gained to an improved source.

As mentioned earlier, concurrent with the introduction of piped water has been a change in water collection practices. The introduction of closed-top plastic containers which do not spill permits transport by wheelbarrows or vehicles. This allows boys and men to collect water from the taps without embarrassment and releases women from some of this exhausting labour.

The women interviewed qualified this assistance from men by stating that household water collection still remained principally the women's chore. Exceptions to this occurred when very large quantities of water had to be transported, e.g. for large households or for non-domestic use, in which cases men would assist by using pick-up trucks to collect the water for the women.

The possibility of transporting the containers by wheelbarrow has provided many of the women with assistance from their children, who assume the task of water collection in the afternoon after school. This has also contributed to reducing women's workload.

While in general, the majority of the women have derived time- and labour-saving gains from the use of the improved supplies, exceptions to these benefits were noted in the two communities which have introduced regulations restricting domestic water use. The women in these two communities are obliged to continue using the traditional water sources for bathing, or laundry. Therefore, the overall time gains experienced by these women are somewhat reduced.

For example, in the Sifuntaneni A community the weekly trip to the river to do the laundry constitutes six hours of labour. Not only is this an energy-consuming activity, it also poses a health risk to the women, as the river is contaminated with bilharzia. Furthermore, as discussed earlier, in those communities where the water committee has regulated access to the communal water supply by introducing "lockable" taps, during any given month some 30% of the poorer households are denied access to the improved water supply. During this period, many of the women from these households are obliged to resume collecting contaminated water from distant traditional water sources.

Overall, however, the findings revealed that women have benefited from the water supplies, which have contributed to reducing the women's workload and saving them time.

The Consultant's findings, which showed that the majority of the women in the communities covered by the field work have derived positive benefits and experienced time and labour savings, corresponds to the findings of an earlier evaluation carried out on the ODA rural water project which stated: "In the five ODA communities visited, women were found to have benefited greatly from the water supplies in the saving of time spent in collecting water. A time saving of 3 to 3.5 hours was noted. The substantial release of time is obvious, but it was devoted more to the fuller pursuit of existing activities than to taking up new ones. The activities so benefiting included crochet work, general housework, agriculture (including cotton growing), thatching and mat-weaving"¹⁾.

Women in six of the eight communities visited during the Consultant's field work stated that they used the time gained to carry out the household tasks of preparing food, cooking and cleaning, and also for child care and agricultural tasks. Whereas before in their 16-hour working-day they experienced conflicting demands in time and energy, especially during peak periods of agricultural work, which led to their inability to accomplish all their chores, now they are able to finish all their tasks in one day. Roof thatching, an activity which used to be spread out over several seasons, can now be accomplished during one season. All the women stated that they no longer have to work until late at night and have additional time for rest and sleep.

Many women mentioned that they also had more time to enjoy spending with their children. For women engaged in handicrafts, mat-weaving and dressmaking, before the introduction of the improved water supplies, the only free time they had to engage in these activities was late at night, which left them with little time to sleep. Now, however, they have time to engage in these income-generating activities during the daylight hours.

¹⁾ Swaziland Rural Water Supplies Ex-Post Evaluation, report EV. 303, ODA, London, 1983: 8-9.

In one of the communities visited, women had used the additional time and the tap water to cultivate dry-season vegetable gardens, not only to supplement their income, but also to supplement their children's diet. The children suffered from poor nutrition, due to the scarcity of fruits and vegetables in the community, which is situated in a drought area. However, these women will probably be forced to discontinue this activity, as their water committee has changed the tariff policy and the additional water fees for non-domestic water use will be prohibitive in future.

Although the majority of women had experienced time gains which enabled them to benefit directly, in two communities women stated that they used the time saved to cultivate their husband's cotton fields. In both of these cases the time gains have been used to tend cash crops owned and marketed by the husbands, but the women have not shared in the monetary profits. Consequently, these time gains have led to increased workloads for the women without them having control over the ensuing proceeds.

Unlike the women in some of the other rural water projects included in the EEC Thematic Evaluation, the women in this EDF project have not had to contribute voluntary labour for construction, which would have increased their overall workload. In this EDF project the main activity in which women participate is the public management of the water supplies as water committee members or as tap leaders.

The women who carry out these activities feel that their participation and involvement has contributed to a greater reliability and better rate of functioning of the facilities. As a reliable supply of tap water is of vital importance to them, they do not view their participation in project activities as an increase to their workload, but feel that their participation is compensated by their utilization of the improved water supply.

One general conclusion derived from the present evaluation and the previous ODA one is that women are using the 20-25% time gains more for the fuller pursuit of existing activities than for the taking

up of new, productive economic ones, one of the project's expected benefits.

None of the women interviewed in the EDF or ODA communities for example, had used their time gains to participate in a training course. The only exception to this was found in the USAID Project community, where a combination of other inputs had facilitated the women using their time gains to carry out new, productive income-generating activities.

5.3 Project Effects on Women's Income and Income-Earning Capacities

The evaluation reveals that water fees are usually the women's financial responsibility, as they fall under household and family expenses (see Subsection 3.1.8). Women who are the sole breadwinners for the family (30% of rural households) or the co-breadwinners (40% of rural households) account for a total of some 70% of the project's population financing the water schemes' recurrent O&M costs.

Hence, the viability of the water supplies and their sustainability depend for a large part upon the income-earning capacities of the women. The female-headed households form a special target group, as they have the most urgent need to increase their cash income. However, all women indicated that their number one priority was to increase their cash income.

The findings of the evaluation reveal that women with regular access to the water supply are experiencing a daily time gain of three to four hours. Amongst other activities, this additional time is used by the women to more fully pursue existing income-generating activities (handicraft production, weaving, basket- and mat-weaving), but not to take up new productive activities. The women felt that these traditional activities they do engage in provide little income, especially in comparison to the effort and time involved.

Factors such as the cost and scarcity of materials, the low sales price and the lack of customers and a nearby marketing network were cited as the cause of the low-earning potential of these activities.

Women in the poorest households, however, cannot rely on handicraft production to support their families and instead use the additional time to work as hired labourers on nearby farms or on commercial farms in order to earn cash.

Some of the women, although they were in the minority in the survey, have used the additional time to cultivate their husband's cash crop field of cotton. In such cases, the women had no control over the income earned, as all the cash proceeds went to the husband.

When asked if the husbands had contributed this money to the household budget, the women replied that, on the contrary, the cash was used to pay for renting a tractor, ploughing, purchasing new seed etc.

These women still had to find the time to engage in some income-generating activity to pay for the family's expenses, including the monthly water fee.

In general, the women who do use the time gained to engage in handicrafts, sewing, etc. are spending on average 125 hours/month on these activities, which generates a monthly income of E 60-70. According to a World Bank directive, the cost of water (cost recovery) for a rural household should not exceed one day's earnings. If this criterion is applied to the female-headed households in which the woman is the family's breadwinner, it is clear why many women cannot afford the water fee.

Some of the women, however, are able to earn up to E 85-90/month from handicraft production, sewing etc., but these women are usually not the household heads supplying the only cash for the family. They are the co-breadwinners and receive financial

assistance from other household members which is used to purchase materials. These women also receive labour assistance from other household members in the cultivation of the family's food production. Finally, the women have access to child care help from other family members, freeing them to spend more time on income-generating activities or to leave the household in order to commute to a training centre to upgrade their skills.

All of the women interviewed stated that in order to maximize the economic benefits and income accrued from the time gained, they would need to engage collectively in new agricultural or non-traditional activities such as vegetable gardening, communal cultivation of high-breed maize, including the purchase of a grinding-mill, block/brick making, etc.

The problem is not that the women do not know how to increase their income, but rather that they lack the means which are required to begin these group endeavours, i.e. back-up support and access to skills, credit lines, marketing outlets, agricultural extension services, seed, fertilizer and pesticides and an accessible supply of water.

The majority of the women have a well-conceived idea of how to sufficiently increase their income so as to be able to afford the recurrent O&M costs, but do not know how to go about getting the help or support services they need. Most of these endeavours are collective Zenzele group activities.

One of the constraints to the women getting this assistance to date, is that the majority of the EDF communities included in the survey are not visited by a MOAC home economics officer or agricultural extension worker. Hence, they have missed the opportunity to be included in the MOAC's skills training workshops held to date, which would have provided the women with all of the skills they lacked. Moreover, this training also included business and marketing skills as well as expertise in carrying out simple feasibility studies prior to undertaking a micro-enterprise.

One of the major problems, therefore, preventing the women from substantially increasing their income-earning capacities is their lack of information and link-up to the appropriate government service, organization, NGO or donor project.

In actual fact several possibilities do exist for these women to receive the type of credit or other assistance they need, for example the EDF Micro-Project Fund, the EDF Rural Credit Scheme, the PPP or the Swaziland Farm Development Foundation (see also Subsection 3.1.11 and Annex 6).

By way of comparison, it is interesting to note the income-earning capacities of the women visited in a USAID project community. The women in this community are benefiting from skills training, credit lines, new maize seed, fertilizer and pesticides as well as extension expertise from the Home Economics Officer and the male agricultural extension worker. Furthermore, they are receiving assistance in hybrid-maize cultivation from a nearby Chinese project.

The women interviewed used the four additional hours to collectively cultivate a vegetable garden and a communal maize field, as well as to engage in handicraft production. In total, the women, including the female household heads, could earn a monthly income of E 125 from these combined activities.

One important constraint to increasing their income which will remain for the women in the EDF project communities is their lack of access to a convenient water supply, as these women need not only a domestic supply of water, but also water for productive uses.

Prior to the water committee in Mliba changing its tariff policy (see Subsection 4.3.1), the women were using the tap water to cultivate vegetable gardens. Part of the vegetables grown were used to supplement the family's diet; the remainder were sold.

The sale of the vegetables generated for many of the female-headed households an income of E 70-80/month, which was sufficient to pay the E 2 water fee. Now that the tariff for using water for productive purposes has been raised to E 10 in addition to the E 2 for domestic water use, the women cannot afford to pay this amount. Hence, they lose their access to the tap water and, simultaneously, the means to generate cash. Without the cash, they cannot pay their monthly water fee.

Therefore, in spite of the positive effects of the acquired time gains, the full potential benefits of the improved water supply for women's income-earning capacities are not being realized.

Moreover, in future more water committees will begin to regulate access to the communal water supply so that households which cannot afford to pay the water fee will be denied access. Hence, the provision of improved water supplies may have an adverse effect, increasing the income differentials between households and families and introducing new forms of inequalities. The poorest households, particularly female-headed ones, will be especially vulnerable to these negative economic changes.

5.4 Project Effects on Women's Social Role in the Community

Women's participation in the local planning and decision-making concerning the design of the water supply schemes has been limited. Although water supply is traditionally a woman's domain and, this being the case, women have always controlled all decisions regarding the siting of the water point, the quantity of water consumed and the overall design of the water supply system, with the introduction of the improved water supplies in this project they have lost much of their control over such decisions.

As a result, women have also lost part of their social status and traditional sphere of influence in the community. Women's displacement from their traditional role has been due to a combination of factors. On the one hand, women have been considered

as the consumers and potential users of the water supplies, but not as partners in the key decisions leading up to the installation of the water supplies. (The RWSB technical design criteria and water-use policy precluded women from being consulted as to their water needs.) On the other hand, the use of a consultant engineer and a commercial contractor precluded women's participation in the key decisions during the implementation and installation of the water schemes.

With regard to the local community management of the improved water supplies, women's participation in the management and decision-making is limited, particularly in comparison to their former role as the principal local managers of traditional water supplies.

In the majority of the communities, during the initial stages of setting up a new water committee and electing its officers and members, men have, to a large extent, been placed in charge of making water supply decisions and handling and managing the equipment. Decision-making concerning the modern mechanical and technical equipment of the improved water schemes has been viewed by many communities as a male realm.

The socio-cultural bias towards men in formal decision-making positions has been another factor favouring male predominance. The election process for selecting the committee members has been another contributing factor.

Unfamiliar with a democratic electoral system, many communities allowed their chief to appoint the water committee members and then approved his candidates. In such a process, the chief's natural bias was to appoint the formal and cultural leaders of the community to the committee and hence most of the committees' officers were men and its members women.

The community development workers, working under time constraints, did not have the opportunity to acquaint themselves with community members and thus could only endorse the election of local male authority figures and leaders to the committees.

With some exceptions, the majority of the communities followed this process and elected predominantly men as the committee's officers and women as its members.

Nevertheless, in some of the communities women were elected to prominent management positions, such as chairman, vice-chairman, treasurer or secretary. Wherever this has occurred, the women have all found this participation in the management of the water supplies to tangibly increase their self-confidence, self-esteem and status.

One woman stated that when she was selected for the position of vice-chairman, she initially wanted to refuse because she did not wish to be in the public limelight, responsible for making decisions. Now, however, she values her involvement in the water committee and views her own participation in the decision-making as an important contribution to the committee and as a positive experience.

There has been a gradual change in the level of women's participation in some of the water committees, particularly in those communities where the water schemes have been in operation the longest. Some of the communities, recognizing that their majority male-leadership committees have been ineffective in administering the maintenance fund and in ensuring the reliable operation of the water scheme, have called for a new election of committee members. As a result, women now hold prominent management positions in these committees.

The evidence from these cases clearly demonstrates that wherever women have become actively involved in prominent leadership and management positions within the water committees, the functioning and effectiveness of these committees has greatly improved. After undergoing training, the women exhibit a dynamic problem-solving capacity and competence and confidence in their ability to make decisions, and function with a large degree of autonomy - all qualities needed for the communities to sustain the water supplies once all project assistance is phased out.

Moreover, in every case where the women are now in community management, this has occurred at the instigation of men in the community and the men expressed a deep sense of pride in the accomplishments and the leadership qualities of the women. Hence, one can observe a definite increase of these women's status in the community.

Furthermore, as a result of their involvement in water management, these women are in the process of developing organizational structures and acquiring community development expertise which can form a basis for dealing with other development issues in the community.

5.5 Project Effects on Women and the Family's Health and Living Conditions

Although it was not possible to validate the findings quantitatively, qualitatively, based on the women's own observations, the provision of an improved water supply has had a very positive impact upon the community members' health and general living conditions.

Firstly, use of the improved water facilities has resulted in a reduction of caloric output and energy for water collection, particularly for the women and children who are mainly responsible for this task. Secondly, the women have noted a reduction in water-related diseases and an improvement in personal and domestic hygiene as a result of the higher quality and quantity of water available.

Water consumption has, in most cases, doubled or tripled. It should be emphasized, however, that the health benefits and the improved quality of life are not evenly distributed, as those poorer households which cannot afford to pay the water charges in some of the communities are not entitled access to the communal water supply, and hence do not enjoy the potential health benefits.

Moreover, some communities have imposed a reduced level of domestic water consumption, obliging the women to continue using traditional water sources for bathing. This negates or reduces a large part of the health benefits of the improved water supply in these communities.

Finally, although the provision of a higher quality and quantity of water has contributed to an improvement in hygiene and a reduction of the very debilitating water-related diseases, it has not contributed to a general improvement in the nutritional status of the family, in particular the children.

One of the important objectives of the 1984-1989 National Development Plan was to overcome the present nutritional crisis in Swaziland through the establishment of vegetable gardens in order to improve the families' diet. In a recent evaluation of Zenzele organizations, it was found that the major constraint women faced in cultivating such vegetable gardens was the lack of accessible sources of water, particularly in the winter dry season, which is also the period when the children have the greatest need for vegetable supplements to their diet ¹⁾.

The evaluation called for collaboration with rural water supply projects in order to provide an accessible water supply source for the cultivation of vegetable gardens, thereby promoting the achievement of the National Development Plan's objective.

The RWSB's water-use policy, however, is counter-productive to the achievement of this goal and, consequently, one of the potential health benefits of the water supply has been lost.

1) Zenzele and Boloma Khaya, The Impact of Training Investments, Ministry of Agriculture and Cooperatives, Home Economics Section, USAID/SWAMDP, Trans Century Corporation, Mbabane, Swaziland, 1988: 13.

5.6 Consequences of (Non-)Integration of Women on the Achievement of the Project's Goals and Objectives

Access to improved water supplies (coverage), continued functioning and a sustained and effective utilization are all pre-conditions necessary to achieve the desired health, social and economic impacts of the project.

One of the most significant consequences of the non-integration of women as partners in the project, in the decision-making and in the implementation, management and maintenance of the improved water supplies is the negative impact this has had on the viability and sustainability of the project. As indicated in Subsection 4.3.1, the project has failed to involve women in the vital stages of the initial planning of the project and in the planning and design of the water schemes.

This has resulted, on the one hand, in the water supplies not fully meeting women's water needs and hence not providing an optimal and effective utilization and, on the other hand, in the inappropriate siting of equipment and water points, which has resulted in higher operating costs and created management problems for the communities. This, in turn, has resulted in a lower rate of functioning of the supplies which has had important consequences for the cost recovery system the communities have set up to collect funds for operation and maintenance. It has also resulted in the disuse of the installations with the resulting huge loss of investments in some cases.

Moreover, the inappropriate siting of some of the standposts and the consequent high operating costs have indirectly contributed to the higher water fee rates which are unaffordable to some of the poorer households, in particular the female-headed ones. As a result, part of the project's target population is excluded from access to the communal water supplies.

Women's low degree of involvement in the community management of the water supplies has also had a negative impact on the sustain-

ability of the water schemes, as indicated in Subsection 4.3.1. The lack of women's participation in the decision-making regarding the community's tariff and water-use policy has resulted in the adoption of policies and regulations which disregard the interests of a large segment of the community and do not take into account the needs of the smaller consumers - the women.

The consequences of these decisions have been counter-productive to the achievement of the project's objectives. In some cases, coverage is not achieved, in others women are obliged to continue using the traditional contaminated water sources to obtain part of the water for their domestic needs. Overall then, there is a reduction of the project's benefits as well as an inequitable distribution of benefits to the disadvantage of the poorer households in which the women are the sole breadwinners.

By contrast, wherever women have actively participated in the management of the water supplies as partners in the decision-making, their involvement has made a definite contribution to the improvement of project efficiency and its effectiveness. When women have, at a later stage in the project, become actively involved and have held a large number of prominent positions in the water committees, they have been instrumental in introducing a successful cost recovery system and financial management system.

It is important to point out that the training the RWSB provided was essential to these women for them to acquire the skills and competence they needed to carry out these tasks.

Together, the measures introduced by the women have contributed to a higher rate of functioning and an improved level of reliability of the water supplies. Moreover, women's participation has strengthened the committees' organizational capacity and problem-solving capacities, contributing to a higher level of self-sufficiency. All of these things are necessary preconditions for the sustainability of the water schemes.

In contrast, it is possible to show that in the communities visited in which there is a predominantly male leadership and a low degree of women's participation in the decision-making and local management of the water supplies, the water committees exhibit a low problem-solving capacity and low degree of self-sufficiency, as they still depend heavily upon the community development worker or the project to tell them what to do to solve their problems.

Moreover, the fact that few women are represented in these water committees, coupled with the fact that the male officers make most of the decisions, has resulted in the women not having much of a say in the establishment of the tariff policy, the determining of water fees, water use regulations and operation and maintenance issues.

When women do not participate as partners in this decision-making, an important human resource is lost, as women's knowledge and experience in water management can forestall many of the committee's problems and mistakes.

For example, in Kabhudla the water committee's solution to the problem of the high operating costs resulting from strangers stealing water from the standposts situated alongside the road was to request the project to close off these taps and instead install house-to-house private connections. When the Consultant suggested they could find a self-help solution to their problem, they responded by saying that the project had given them a crippled child so now it could provide them with crutches.

It is interesting to compare Kabhudla's solution to this problem with the solution proposed by the recently re-organized water committee of Mahamba in which women officers now play a prominent role. Mahamba's solution to the same problem was not to ask the project for help, but to install lockable taps themselves on the standposts.

Mliba's committee's solution to this same problem (high operating costs as a result of strangers consuming large quantities of water)

has been to try to lower its operating costs by introducing regulations which severely restrict the households' domestic water consumption together with a tariff policy whereby the small household consumers virtually subsidize the water consumption of the larger consumers.

The water committee of Sifuntaneni A, faced with the problem of the limited financial resources of many of its households, reacted by severely reducing water consumption to less than five litres per capital per day.

However, if individual households lack the necessary financial resources, perhaps a more sustainable solution for the community financing of the maintenance fund would be the introduction of communally- cultivated cash crops, such as cotton or tobacco. The proceeds of the sale of the crop could provide the cash to replenish the maintenance fund.

Another problem sometimes encountered by water committees with a predominantly male composition is their lack of vested interest and motivation in managing the communal water supply. There is such a serious problem of absenteeism on the part of most of the male water committee's members in the community of Sifuntaneni B that the chief has resorted to fining the male officers in order to motivate them to attend the water committee's meetings.

The inclusion of women in the committees does not have to mean the exclusion of men. Men and women each have their own knowledge, skills and aptitudes, and if they pool these together and work as partners it will increase the probability of an effective utilization of the supplies, continued functioning and long-term sustainability.

In the final analysis, the strongest argument for the integration of women as partners in the project is one of cost-effectiveness. The cost of not involving women in the project has been a loss of investments and an ineffectiveness in reaching project goals. In contrast, the project has provided sufficient evidence to demon-

strate that the early and extensive participation of women increases project efficiency and effectiveness.

6. CONCLUSIONS AND RECOMMENDATIONS

6.1 Conclusions

6.1.1 *General Conclusions*

If the planning and implementation of the second phase of the project (Lomé III) is compared with that of the first phase (Lomé II), a marked improvement can be seen. In comparing the phases' objectives and indicators of success, and their relationship to the project's activities, it is clear that an attempt has been made to incorporate the lessons learned from the first phase into the design of the second phase, the Lomé III project currently in progress. This is proof of a high degree of flexibility on the part of the implementing agency, the RWSB, in bringing about change by learning from its shortcomings and responding by introducing improvements.

Aiming for a reduction in water-related diseases and a general improvement in the rural population's health and living conditions, the Lomé II project's activities dealt mainly with the installation of the facilities, and the budget dealt with the people and materials needed to install the water supply schemes. Thus, the indicator against which progress was measured, was the number and timing of the installations.

The illogical nature of the project's objectives and activities consists in the fact that it is difficult to leap from the installation of a number of new water systems to an improvement in health without passing through several intermediate steps. The installation of facilities will not lead to any benefits unless they are maintained and used effectively.

The design and planning of the Lomé III project reflects a serious effort to provide for these latter two intermediate steps: effectively functioning and utilized installations. The project activities deal with the preparation, organization, education and

training of the communities so that they will be well informed and understand their responsibilities, be organized and be competent to assume responsibility for their management operation and maintenance tasks and also acquire a basic understanding of health which will motivate a hygienic and consistent use of the facilities.

Recognizing that improved health requires a "package approach", water/ sanitation and health education are now linked up and integrated into the project activities as well.

Moreover, the community participation approach has been expanded to allow for a greater degree of community involvement. Institution building of the RWSB in the form of counterpart training and training of technical and social staff at all levels will be provided to strengthen its capacity to implement project activities and provide the necessary back-up support.

These "software" inputs reflect the importance attributed in Lomé III to human resource development, training and community education and participation - all measures intended to improve the community aspects of the project.

These improvements constitute a major step forward. However, looking ahead beyond the phasing out of the project and providing insurance that there will be an effective utilization and sustainability of the installations once all project assistance ends requires going one step further. The project activities must also provide for the sustainability of the installations and the autonomy of the water committees.

Analysing sustainability naturally brings up questions related to women's role in reaching objectives. The present community participation approach does permit a greater degree of community involvement.

However, this improved community participation approach does not provide any guarantee that women will also participate on a systematic basis as partners in the decision-making and management

of the installed water supplies and not just as the beneficiaries of the services.

6.1.2 Constraints and Positive Factors Concerning the Effective Integration of Women in Project Activities

Roles and Needs of Women

Women have an active role to play in the rural water supply and sanitation sector: they are the main managers, collectors and consumers of water for drinking and domestic uses, as well as the key figures in bringing about changes in hygiene and practices regarding water and sanitation facilities in the households. At community level they have a considerable influence on planning and implementing health education programmes.

As many as 50% of the rural households are headed by women. Moreover, the number of households in which women are the sole providers for themselves and their children is growing. Women are therefore an important factor in rural water and sanitation projects. They are not only the intended beneficiaries of the labour- and time-saving opportunities offered by the provision of improved water/sanitation supplies, but also the agents and decision-makers in their realization, the economic producers of part of the financial resources for their cost recovery and the public managers of the installed supplies.

The most frequently heard complaint of women is their lack of time, coupled with their urgent need for a cash income. Women are overburdened by their tasks as mothers, household managers and food producers as well as economic producers of a cash income. The high rate of labour migration means that women are faced with many extra responsibilities.

Socio-cultural constraints limit women's full participation in the country's economy as micro-entrepreneurs to produce a cash income to cover household expenditures. The major constraints lie in the marriage laws, the control and distribution of SNL by men, the

number of children a woman has, domestic activities and the amount of free time women have.

Women's access to capital and credit as individuals is limited because, on the one hand, of marriage laws requiring the husband's consent to make loans and, on the other hand, women's lack of land or cattle to use as collateral. Moreover, women's ability to generate a sufficient income is hampered by their lack of appropriate skills and lack of access to training and to the appropriate extension services.

Collectively organized in a group, however, women are able to surmount many of the above-mentioned constraints which limit their ability to undertake economic activities to produce a cash income. Nevertheless, an important constraint which remains for women organized in groups is their lack of information on the credit lines and the training and technical assistance opportunities open to them, and also the lack of appropriate back-up support available. An additional constraint is the unavailability of water to use for productive economic purposes.

Baseline Data

In spite of the important role of women in rural water supply and sanitation, the evaluation has shown that women's roles, needs and constraints were investigated in a very limited way during the planning phase and implementation of the Lomé II and III projects. During the preparation of the projects, no socio-economic distinctions were made between men and women with regard to their separate roles, needs, tasks, financial responsibilities and incomes, which are of crucial relevance in preparing water and sanitation projects.

Women have only been conceived as the intended beneficiaries of the improved supplies, and then only in their role as domestic consumers. Baseline data were not collected, however, to determine women's domestic water use needs; instead technical criteria were applied.

Prior to the start-up of Lomé II, no baseline data were collected at all. During the appraisal stage of Lomé III, an attempt was made to reconstruct the socio-economic household situation, based on government surveys and reports. However, no actual affordability study in the project area was carried out to determine the viability of the O&M costs to the intended users.

The assumption that the average annual household income was sufficient to pay the O&M costs acted as a constraint to community analysis studies being carried out by the project planners.

Such field studies would reveal to the project planners that men and women indeed have separate financial responsibilities, incomes and savings and, thus, that women are responsible for paying a large part of the O&M costs. Such studies would also provide the data indicating women's needs and the constraints they face as economic producers, particularly the women with the most urgent cash needs, i.e. those in female-headed households.

Moreover, basic data collected during a community analysis would also reveal the crucial role women actually play in the local management of traditional water supplies and, as a consequence, the important role they should play in the public management and maintenance of improved water schemes.

Target Group and Design

Although women have been targeted as the principal beneficiaries of the improved installations, which have reduced the time-consuming burden of water collection, the Lomé II and III projects have not acknowledged women's role in the project as independent economic producers and co-funders of cost recovery, or as partners in the decision-making and community management of the installations.

As co-funders of the O&M costs, women as a separate target group with their own interests and needs in generating sufficient cash to pay the water fees were not acknowledged. No measures were foreseen to collaborate with other government agencies, NGOs or

projects to ensure that women would have access to extension, credit, training and any other inputs and services they needed to improve their income-earning capacities.

The project has been designed to provide women with water to carry out their domestic tasks as housewives and mothers, but not to use for economic purposes, which women need to do in their role as producers to generate the cash to pay the water fees.

Community development and preparation activities were not planned taking women's special needs into account. Hence, especially during the early phase of the project, the location of community meetings, their timing and the selection process used to appoint water committee members did not favour women's participation.

Although women have participated in the project's training activities, the timing and location of some of the district-level workshops, which required overnight residence, acted as a constraint to some of the women's attendance, namely those who had children to care for at the homestead.

Furthermore, the choice of a predominantly technical approach in the design of the water supplies has also reduced the possibilities for women's participation.

Certain changes in the planning and design of the Lomé III project, while not guaranteeing women's involvement, do provide for a greater probability that women will be more actively involved throughout the project cycle. The changes that favour women's participation include an attempt in the planning to synchronize the social and technical components so as to allow sufficient time to mobilize and organize the communities. The use, thus, of community readiness - as opposed to efficiency - certainly increases the probability of women's involvement.

Moreover, the increase in flexibility in allowing sufficient time for the "software" activities to start up should give the community development workers the opportunity to facilitate a democratic

election process within each community. In this case, the women and men who are effective leaders and managers will be selected rather than having, as happened previously, a blanket endorsement of the local male authority figures or formal leaders proposed by the chief.

Another factor which increases women's involvement is the timing and location of the community meetings organized by the community development workers, which are now held in the community itself and at a time convenient to women.

Furthermore, a sizeable budget is now allotted to the community training workshops, permitting them to be organized for each of the 12 Lomé III project communities, either by organizing a separate training workshop for each community or by grouping together the three to four communities in each district and training all the committee members together.

Such a small-scale, comprehensive approach will facilitate the "decentralization" of these workshops so that their location and timing should favour women's increased participation. Overall, the number of women receiving training should also increase, as this approach will allow for every committee member to receive training.

An additional positive factor, socio-cultural in nature, is the gradual change in attitude on the part of many of the male community members regarding women's involvement in community management and maintenance activities. Community exchange visits and personal contacts with other communities where women successfully hold prominent positions in water committees have begun to persuade many of the men of the benefits - in terms of effectiveness - of supporting women's active involvement in community management and maintenance.

Moreover, some of the community development workers have begun to take a more active role during the community meetings in advocating and promoting women's involvement as partners in the community decision-making and management.

Nevertheless, the use of a technical design approach and the lack of a clear protocol and work plan denoting the decision points where women in particular have a role, remain constraints to increasing women's participation in the planning and design of the water and sanitation installations.

Strategy

The different implementing ministries under whose aegis the rural water and sanitation programme falls - the MONR and the MOH - do not have a clear policy to integrate women in their programmes, nor is there a coherent WID policy or strategy across the operational ministries. No positive measures on the part of the implementing agencies - the RWSB together with its Public Health Unit and the Health Inspectorate - could therefore be expected to encourage women's participation in the programme.

Coupled with this lack of an explicit WID policy is the prevailing conception among many of the directors of the RWSB that women are the passive beneficiaries and consumers of the improved services but not the decision-makers or contributors to the financial management and maintenance.

It should be noted that this conception of the women's role fits in with the national "unofficial" WID policy, in which women are viewed as mothers and housewives but not as partners in community decision-making or economic/agricultural producers, striving for economic independence.

These factors explain why no measures have been taken to guarantee that women will participate in all project activities.

Participation in the Implementation

Although there has been a progressive increase in the level of women's involvement, the overall level of women's participation in the project is not commensurate with the important roles they have to play in this sector.

During the initial stages of Phase I, women's participation in project activities was rather limited. They have had little involvement in the local planning and decision-making concerning the design of water supply schemes. Women's participation in decisions concerning the local community management has also been limited in comparison to their former role as the principal local managers of traditional water supplies.

Although there has been a progressive increase in the number of women holding prominent management positions within the water committees, on the whole women are still under-represented on these committees which decide on water-use regulations and charges, the hours of operation of standposts, etc. (average ratio: two women to five men).

However, wherever women have become actively involved in community management, a very positive factor in support of women's effective functioning as managers has been the project training which has been provided to them.

Monitoring and Evaluation

The absence of a monitoring system has been a constraint to project management taking an active stance in promoting women's participation. It has meant that, throughout the implementation of Lomé II, project management has been unaware of the positive benefits and increase in project effectivity in reaching its goals as a result of the successful involvement and participation of women in project activities. Moreover, project management has been equally unable to monitor the adverse effects and cost to project (in)efficiency wherever women have not been involved.

Staffing

Up until now, throughout the project, all expatriate technical assistance has been provided entirely by men. No WID expertise has been involved, either in the form of expatriate technical assistance or in that of Government of Swaziland staff. Moreover, the

management and field staff of the implementing agency, have almost all been men.

This could partly account for the lack of specific measures and approaches adopted to involve women as agents and partners in decisions during project activities.

It should be pointed out, however, that the sensitivity of the male community development staff to the roles and needs of women has been a positive factor in favouring the recent increase in the level of women's participation. It should be emphasized that, in order to maximize their effectiveness in promoting women's integration in the project, the community development workers will need further training.

Role of the EEC in Brussels and the EC Delegation in Mbabane

Up until recently, the EC Delegation in Mbabane had not taken the initiative to promote, directly or indirectly, women's participation as agents and decision-makers in the project. A positive factor has been the recent attempt made by the Delegation's Technical Officer to monitor the degree of women's participation within the water committees. This has occurred in response to specific questions regarding the level of women's involvement in the Lomé II project, coming from the EDF Committee in Brussels during the appraisal carried out for the Lomé III project.

6.2 Recommendations Concerning Adjustments to the Project

The inclusion of women as active participants in all project activities does not mean the exclusion of men. The inclusion of both women and men in project activities will result in the pooling of slightly different knowledge and skills, making it possible for the community-level management and maintenance to function effectively.

Measures to Integrate Women More Systematically in the Project

1. Project management should explicitly acknowledge the role of women as active partners with the men in the communities in planning and design, decision-making and community management and the operation and maintenance of the installations. Women's role as co-financers of the O&M costs should also be acknowledged.
2. Project management should adopt a policy to actively encourage the involvement of women in all project activities. To this end, the RWSB must take an active role by expanding the present community participation strategy to include women's participation in its rural water and sanitation programme as one of the strategy's aims. Existing impediments to women's full involvement as active participants in all phases of the project should be reviewed, and ways to remove these impediments should be considered and put into effect.
3. The design of project activities determines the possibilities of integrating women. All decisions should be made in ways that increase rather than decrease the probability of women's involvement. For example, the location, duration and timing of community-level meetings and training workshops should be arranged so as to encourage women's full attendance.
4. The promotion of women's participation should be included in the community development extension staff's terms of reference and task description.
5. It will be beneficial to the RWSB to strengthen its capacity in implementing those project activities intended to bring about an effective utilization of the supplies and encourage community responsibility for the management and maintenance of the installations. To this end, it is recommended that the EDF as well as the other donors active in the sector coordinate their efforts in funding the provision of local technical

assistance to the RWSB, in the form of a female coordinator/advisor. This person would be responsible for:

- coordinating the community training workshops;
- acting as a resource person and collaborating with other government agencies, NGOs and donors in providing the services, activities and inputs needed to improve women's income-earning capacity;
- designing, setting up and implementing the monitoring system to follow project progress in reaching the established goals and in integrating women;
- providing back-up support to the RWSB in the promotion of the role of women in its water and sanitation programme.

6. As part of the measures to be taken to improve the community aspects in the Lomé III project, it is recommended that short-term international female technical assistance of three months' duration be funded in order to provide backstopping in the form of on-the-job counterpart training to the coordinator/advisor. This training should cover:

- the coordination of the community training workshop activities;
- assistance in the provision of the necessary inputs, services, and back-up support to the project women for them to carry out micro-enterprises and income-generating activities;
- the design, setting up and implementation of a monitoring system with measurable indicators of the type, degree and effectiveness of women's participation;
- development of a conceptual approach for measuring the costs and benefits of women's (non-)participation.

Recommendations Concerning Adjustments for Project Implementation in General

7. The evaluation of the Lomé II project revealed that actual O&M costs exceed original estimates. Contrary to expectations, many women household members and heads of households are solely responsible for paying these costs. As original

affordability calculations were based upon the average annual income of the male household head and male household members, it is essential for the Lomé III project to carry out affordability studies in each of the 12 project communities to determine who in the household will be responsible for paying the water fees and whether they have sufficient revenue to do so.

8. An ever-growing proportion of households in the Lomé II communities served with improved water supplies are unable to pay the recurrent maintenance costs entitling them to have access to the communal water supply. In the interests of sustaining the functioning of the water supplies as well as ensuring an equitable access, measures should be taken to improve the income-earning capacities of those households with limited financial resources, particularly those with the most urgent cash needs: the female-headed households. Therefore, the RWSB and project management should make a concerted effort to collaborate with other government agencies, NGOs and donors active in the project areas which provide the services and inputs necessary to improve the income-earning possibilities of the women, and also establish linkages with micro-enterprise development, e.g. business and marketing training, skills training, home economics extension, agricultural extension, rural credit lines, etc.

9. Zenzele women's groups are a valuable human resource in support of project activities which, if properly activated, trained and provided with back-up support, could serve as a community self-help group, providing organization assistance in water supply management as well as in raising the cash for the O&M costs. The RWSB should collaborate with the MOAC's Home Economics Extension Service in order to provide back-up support to the Zenzele groups in the project communities. The business/marketing training courses offered by the home economics agents would be of further benefit to these groups in establishing viable micro-enterprises.

10. It is recommended that the RWSB and project management critically review and reassess the current water-use policy. In view of the evaluation's findings, which indicate that a large number of women perceive the improved water supply not only as a means to improve the family's health, but also as a means to earn the cash to finance the maintenance costs, it would appear counter-productive to restrict water usage to domestic applications only. Also, in the interests of improving family nutrition, it would be most beneficial if the RWSB allowed the water to be used for the cultivation of dry-season vegetable gardens.

11. In response to a need expressed on the part of the communities, the RWSB has an important advisory role to play in assisting the communities in establishing realistic tariff policies and advising them as to alternative means for the community financing of the O&M costs (as opposed to household collections).

12. It is recommended that project management implement mechanisms which permit the women and men in the communities to be partners with the project (Community Development Officers, the RWSB Design Engineer, the Consulting Engineer and the Contractor) in the decision-making process concerning the further design and siting of the water supply schemes. The implementation of this participatory process will require the following:
 - drawing up a protocol which defines the design decisions open to community choice and the role women will play
 - preparing a detailed work plan specifying how the software and hardware components will be woven together and who will be responsible for what, at what time and in what place.

13. Arrangements should be made to allow for community involvement during the construction phase. Provisions should be included in the terms of reference for the Design Consultant and

contractor, specifying the exact community inputs during construction.

14. A more participatory approach to health education is necessary in order to bring about a change in the thinking patterns and behaviour of the beneficiary communities. The community members must be more deeply involved in the critical analysis of their own situation and identify the actions which they can implement to improve it.
15. Health education must be provided, not only prior to construction, but also at regular intervals after the improved supplies are in use. The RWSB and its Public Health Unit should draw upon the local community resource of the rural health motivators, who in turn could regularly provide health education to the communities. In order to increase the rural health motivators' effectiveness, it will be necessary to supplement their training curriculum with specific instruction as to their role in promoting community management and maintenance, and in the use of carrying out participatory health education.
16. In order to foster community responsibility and ownership of the improved supplies, it is recommended that a mutually-binding reciprocal contract be signed between the RWSB and the beneficiary community (two officers of the water and sanitation committee) during the handing over of the water supply scheme. Such a contract, listing not only the community's long-term responsibilities, but also those of the RWSB in providing a reliable repair service to the community, would serve as a means to formalize each party's commitment and accountability to the other. At the handing over ceremony women should be at the centre of attention so that their prominent role in water supply is given public recognition.
17. The training of the water committee members and water operators/attendants must occur before the water schemes are put into operation so that the community members will be

skilled and competent to be able to perform their respective tasks once the supplies are handed over to them. Therefore, the existing training approach needs to be adapted.

It is recommended that henceforth, training be provided to all the committee members and water operators/attendants from a community. A participatory training approach should be adopted to train participants in management, problem-solving skills, action-planning and progress-monitoring, bookkeeping and health education, in addition to providing the technical operation and maintenance training. Some of the content of the SWAMPD "leadership training" would be extremely beneficial.

Small-scale, comprehensive workshops could be organized at district level, grouping together some 20-30 participants per workshop. Each workshop should include all the community members from the Lomé III communities within one district, but the total number of participants per workshop should be limited to 36. This type of training workshop could also be provided as refresher courses to the Lomé II community members. If successful, this training method could be applied on a broader scale and implemented in all RWSB water projects.

18. It is recommended that further training and skills upgrading be provided to the community development workers in the following areas:
 - the assessment of women's needs and priorities in relation to water and sanitation;
 - the identification of the existing constraints to women's involvement;
 - the design and use of different types of participatory techniques to promote effective community participation, including the full involvement of women;
 - training-of-trainers techniques to carry out the training of the community members using the participatory approach;

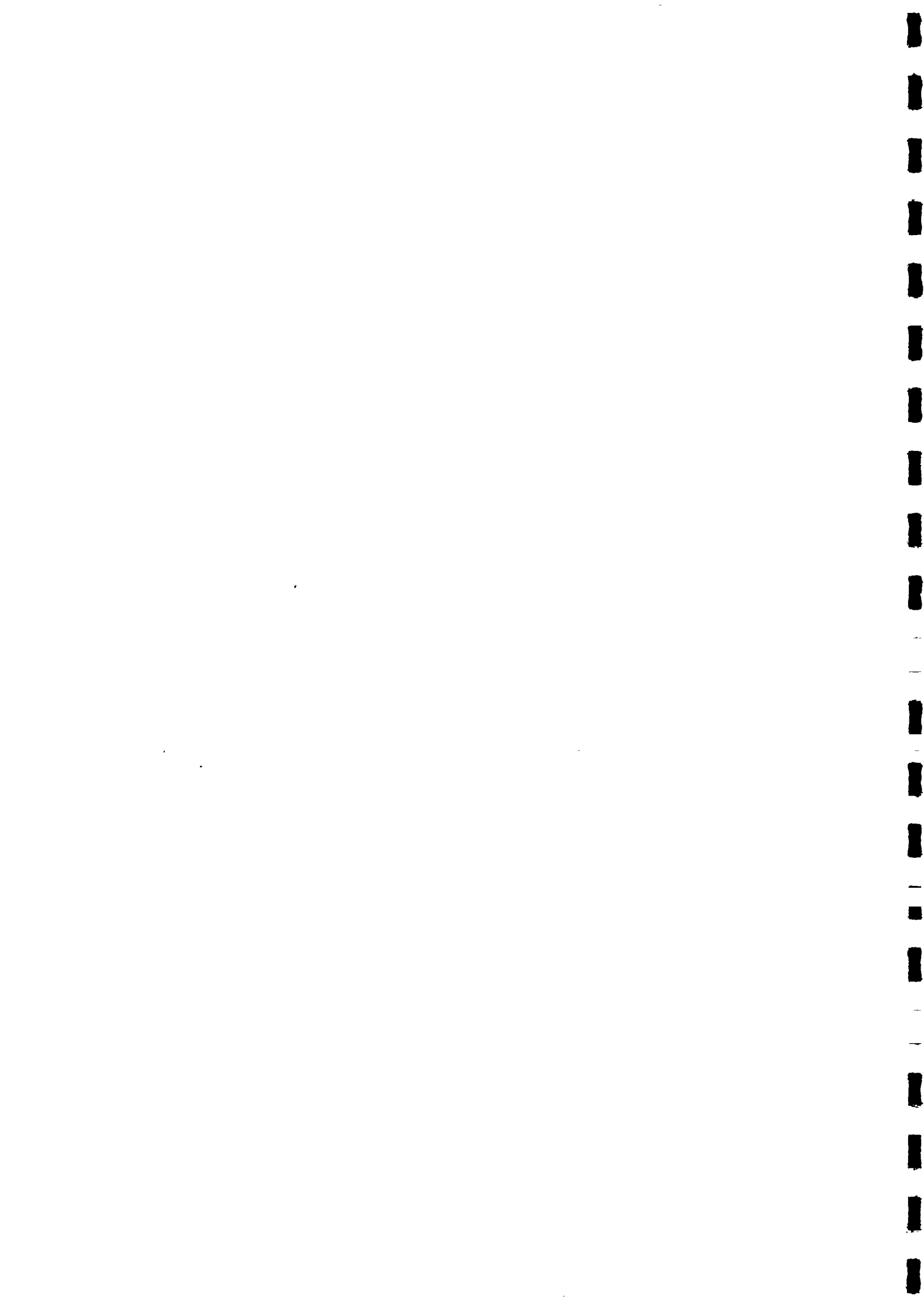
- the use of various information collection (community analysis and rapid socio-economic surveys) and monitoring techniques (qualitative, quantitative, participatory and observational);
 - the carrying out of needs assessments and simple feasibility studies to determine what inputs are needed to improve women's income-earning capacities and which activities will be cost-effective;
 - brief business training to enable the community development workers to be in a better position to advise women on setting up feasible income-generating activities (MOAC could assist in the provision of this type of training).
19. In order to improve project efficiency and effectiveness, it is recommended that a monitoring and evaluation system be implemented. This can serve as a tool for both project management and the communities in monitoring project progress and making adjustments where necessary. Participatory data collection by the beneficiary communities to monitor their own progress is a method to stimulate the communities in problem-solving and make them aware of their responsibility to take control and assume ownership of the improved supplies. The analysis of the data would occur at three interrelated levels: community, community development extension staff and RWSB/project management.
20. The Planning Division of the MONR is currently involved in carrying out rapid surveys at community level, in particular with female household heads and members, in order to assess the effects of electrification upon women as well as the implications of environmental resource utilization for women. This same manpower and approach could serve as a resource to the RWSB in implementing its affordability studies and assessing the constraints and needs of women in improving their income-generating possibilities.

Beyond Project Level

21. In order to improve the effectiveness of the rural credit/loan facilities offered by organizations and banks, it is recommended that seminars be organized for the credit/loan officers in order to:
 - make them aware of the constraints, needs and priorities of their rural clients, in particular rural women;
 - provide skills upgrading in implementing market feasibility studies to the officers, so that they will be in a better position to advise the women of the current market situation with regard to the feasibility of their proposed activity and the most profitable economic opportunities available.

22. The evaluation revealed that many of the outlying rural communities as well as the community development workers themselves, were unaware or poorly informed of the services and project assistance offered by the various NGOs operating in the rural areas. It is therefore recommended that all NGOs undertake information campaigns which are aimed at providing information to the outlying rural communities. Furthermore, the NGOs' system of selection of project applicants should be based on a quota system so as to evenly distribute the intended project services and benefits between those communities located in proximity to the capital and urban areas and those rural communities situated in the more difficult to reach, outlying rural areas.

A list of more general recommendations, concerning EEC assistance to the rural water and sanitation sector is provided in Annex 9.



ANNEXES



TERMS OF REFERENCE

Evaluation Missions to Mono-Sector Projects
in Agriculture, Livestock and Water Supply

Projects to be Evaluated

The following projects are to be evaluated:

- Botswana: Sheep and Goat Development Project
- Burkina Faso: Développement de la riziculture dans l'ORD de la Comoé
- Niger: Développement de la riziculture moderne sur le fleuve Niger, aménagement hydro-agricole de Daibéry
- Niger: Hydraulique villageoise, Département de Zinder
- Swaziland: Rural Water Supply and Sanitation Programme
- Zambia: Maize Development Project.

Introduction

In July 1988, BMB in association with FEMCONSULT was assigned by the EEC to carry out a thematic evaluation on women in development. The evaluation consists of three phases: Phase I is the documentation and preparation phase which includes among others the selection of projects and the proposal of detailed terms of reference and a working programme for the next phase; Phase II consists of the field evaluation of the selected projects, and in Phase III a synthesis report will be drawn up.

Objective

The ultimate objective of this thematic evaluation is to learn from past experience concerning WID in the sectors of agriculture, livestock, forestry and energy and environment, and rural drinking-water supply and sanitation, and to arrive at a

set of realistic recommendations related to the cooperation policy, means, procedures and methods of the Community and its development partners, and in particular to define a number of operational sector-specific guidelines for the integration of women during the various stages of the project cycle.

Project Evaluation

The goals of the project evaluation are:

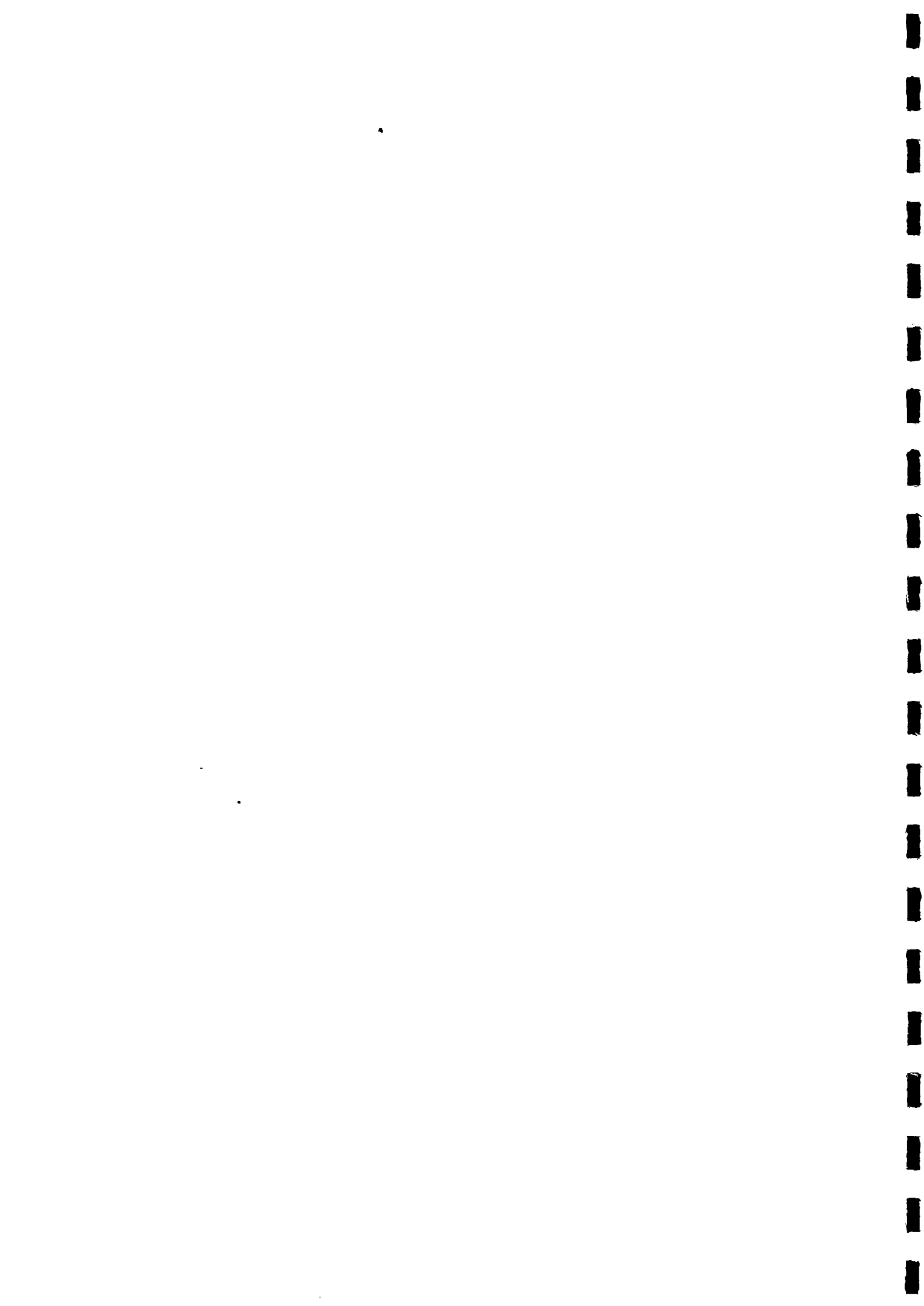
1. To assess women's participation in the project and to evaluate the way in which women's roles, needs and interests have been taken into account during the different phases in the project cycle, i.e. identification, preparation and design, appraisal/financing, implementation, monitoring and evaluation.
2. To investigate whether baseline data regarding women's position and role were available or have been collected during the preparation phase; if not, an attempt will be made to reconstruct the initial situation of women in the project area.
3. To assess against these data the actual or expected effects of the project on the position of women:
 - women's income-generating capacities: access to factors/means of production and to services
 - women's workload
 - women's social role/status in the local community: level of participation in decision-making and organization
 - women's living conditions: benefits of social services, improvement of health, etc.
 - effect on family living conditions.

4. To analyse:
 - a) constraints (or positive factors) in and outside the project for the effective integration of women as agents and beneficiaries in the project
 - b) the consequences of the (non-)integration of women for the achievement of the project's general goals and specific objectives, notably with respect to project sustainability (viability)
 - c) the appropriateness of the objectives, notably with respect to the enhancement of women's status, of their role as (co-)breadwinners and of family well-being in general.
5. To recommend where appropriate project adjustments are to be made to ongoing projects.
6. To formulate conclusions and recommendations of a general nature with a view to involving women more systematically in EEC projects, with special attention to sustainable development in the sector concerned.

The mission shall make use of the attached checklist "Evaluation of WID in Mainstream Projects", which contains more detailed questions and points of attention regarding objectives 1 to 4. The checklist has been developed as a guideline for all the evaluation missions and shall be used with the required flexibility. For each sector, a supplement to the general checklist shall also be used.

Reporting

A report on each project shall be prepared in English or French within four weeks after termination of the mission. The report shall be drawn up in accordance with the uniform reporting format designed for this evaluation. The report shall not exceed 30 pages and shall be introduced by a summary of approximately 5 pages.



CHECKLIST FOR THE EVALUATION OF THE ROLE OF WOMEN
IN RURAL WATER SUPPLY AND SANITATION PROJECTS

Does the effective involvement and participation of Women in the Design, Management and Maintenance of the supplies:

- Lead to a greater level of sustainability?
 - Lead to a greater reliability of the supplies and a better rate of functioning?
 - Improve the community's capacity to manage and maintain the supplies?
 - Lead to an increased and correct usage of the supplies by the community.
1. Assessment of the actual or expected effects of the project on the position of women as well as upon the community in general?

Four aspects are considered:

1. Women's workload;
2. Women's income-earning capacities;
3. Women's social role in the local community;
4. Family's living conditions.

However, before an assessment can be made of the actual or expected effects which the provision of improved water supply and/or sanitation facilities has or will have upon women, and the community it will first be necessary to evaluate the actual performance and use of the water supply and/or sanitation facilities installed by the project.

More specifically, it will be necessary to evaluate whether the facilities are reliable and function, whether they meet the beneficiary women's and community's needs with regard to quantity and quality of water produced, as well as accessibility, ease of use and hours of operation of the facilities.

Finally, an assessment must be made as to whether the beneficiary women systematically use the improved facilities, for the project's installation of improved supplies does not automatically mean that they will be used as intended. The degree to which the improved supplies meet women's needs as well as their awareness of the casual link between contaminated water, poor sanitation and disease will determine the degree of usage of improved supplies.

Once the actual performance and use of the facilities have been determined, it is possible to assess their effects upon the position of women with respect to the above-mentioned aspects.

2. Evaluate the performance and use of the improved water supply/sanitation facilities:
 - . Are the improved water supply/sanitation facilities reliable and do they function?
 - . Do the improved water supply facilities meet women's needs with regard to:
 - quantity: adequate number of water points providing a sufficient quantity of water to meet women's needs for drinking water, domestic and non-domestic uses?
 - quality of water: safe, acceptable taste, colour and odour?
 - accessibility and distance?
 - ease of use and upkeep?
 - convenient hours of operation?
 - . Do the improved sanitary facilities meet the women's needs with respect to:
 - reliability?
 - culturally acceptable technology?
 - hygienic disposal of human excreta?
 - privacy?
 - . What are the water-use patterns?
 - Are the facilities being used correctly?
 - Who uses them and how often during the dry and rainy seasons?
 - How much time is spent collecting water and what distance is travelled?
 - Is there any increase in water use?

- . Did the presence of the improved water supplies change old patterns of water use for personal and domestic hygiene?
 - . Are the sanitary facilities used? Is there a safe method of excreta disposal?
3. . What is the level of the participation of women in the implementation?
Do women have access to project activities and what is the extent of their real participation? In which activities do women participate, in which do they not?

In what way do women participate, e.g.:

Are women given the opportunity to take part directly in local planning and decision-making or consulted as to choice/design of facilities, siting decisions, construction of additional facilities or operating hours?

Do women participate in local management, operation and maintenance of water supply/sanitation facilities?

- water point/sanitation site management
- caretaking as trained caretakers doing both technical tasks or as members of mixed caretakers teams
- local administration and management as trained members of a local management committee
- health promotion as village health workers.

Do women participate in training and extension activities:

- for construction, or
- in operation, maintenance, and upkeep of the system?

Are women provided training in management as members of local committees in book-keeping, record-keeping and problem-solving approaches?

Are women provided health education or health knowledge and hygiene practices?

Are the participants special categories of women?; which categories are not participating? (differences in age, caste, ethnology, rich/poor, position in family: female-headed, first/second wife).

Any changes in the level of participation during implementation? Reasons? Is the level of women's participation in the project commensurate with their role in the family and community in water supply and sanitation, in water collection, traditional public management of water sources, maintenance, waste disposal and health promotion as acceptors, users, managers and agents of change?

If not, identify constraints in the social/cultural/legal spheres and/or other reasons.

4. What are the consequences of the (non-)integration of women for the achievement of the project's goals?

What is the importance of the integration of women in rural water supply and sanitation projects for the achievement of the project's goals? These are usually the provision of modern water supply/sanitation points which will be managed, maintained and sustained in the long term by the beneficiary user-community, and, if used correctly, can contribute to a saving in the time and labour involved in drawing and transporting water.

For example, as local water managers, women need to be involved in any decisions pertaining to the new water points, because it is they who make the day-to-day maintenance decisions. They decide where to collect water for various purposes and in various seasons, how much to collect and how to use it. In their role as local managers, women make decisions on what water points, both traditional and improved, should be used and maintained. These decisions determine the long-term sustainability of the improved water supplies. Thus, women's opinions and needs have important consequences for the acceptance, use and readiness to maintain new water supplies and for the ultimate health impact of the project.

5. How does the project affect, or is very likely to do so in future, women's workload?

. Did the project contribute to an alleviation of women's workload, i.e. a time/energy saving? For example by:

- provision of appropriate technology for domestic or productive use, e.g. grain mills and fuel-saving stoves
- improvement of water supplies (if project resulted in a saving in the time required to collect water, calculate time and indicate how time gains were used.)
- provision of child care facilities, improvement of health facilities.

. Did the project increase women's workload? For example by:

- the intensification of the agricultural and livestock production
- demanding unpaid labour contributions in social infrastructural works
- changing the social environment (settlement projects)
- detrimental effects on the environment (scarcity of fuel-wood)
- distant location of water point or long queues because of inadequate water supply or inconvenient operating hours
- loss of assistance in water collection
- women's labour is required for excavation or construction of water points.

Were the benefits received commensurate to this increase?

If the project has resulted in an initial decrease in women's workload as well as timesaving (for example as a result of an improvement in water supplies), has this timesaving resulted in allocation of additional tasks from men to women, thereby increasing their overall workload?

6. How does the project affect, or is very likely to do so in future, women's income-earning capacities and income?

Check on changes in:

- . Women's access to factors and means of production
 - land, water, stock, poultry, fish, trees
(Have any categories of women been excluded from access to water for agricultural production?)
 - capital, credit, savings
 - labour (children, spouse, other kin, informal work group, hired labour)
 - implements and inputs
 - transportation
- . Women's access to production services
 - skill training (including management and accounting)
 - extension services and inputs (such as seed, young plants, fertilizer, animal traction)
 - marketing facilities
 - co-operatives
 - research and technology
- . Women's workload as a constraint (see also 3.2)
- . Women's access to and control over income e.g.:
 - decrease in income as a result of loss of employment in water collection and sale of water, or women having to contribute much more money than men do for the construction and maintenance of water

- increase in women's income as a result of utilization of improved water supply for irrigation (or natural fertilizer through sanitary collection of human waste) thereby increasing agricultural production for sale
- increase in income as a result of time saved by using improved water supplies being used for income-generating activities
- time savings and economic use of water result in an initial increase in women's income, whereupon the husband reduces his financial contribution to family subsistence, thereby increasing women's share of financial responsibility.

7. How does the project affect, or is very likely to do so in future, women's social role in the local community?

Check on changes in:

- . Women's participation in decision-making at the community level (e.g. member of co-operatives, users' committees, water supply management committees)
- . women's level of organization (e.g. forming of women's groups to cultivate communal field)
- . women's knowledge and skills competency (leading to more self-reliance, for example as a result of technical training acquired for water supply maintenance, management or book-keeping skills).

How does the project affect, or is very likely to do so in future, women's living conditions, those of her family and those of the community?

- . if there is an improvement in the level of social services, have women acquired access to these services?
e.g.:

education and literacy/numeracy

health care and family planning

drinking water and sanitation

community centres.

- . If there is an improvement in physical infrastructure (road infrastructure, housing, etc.), do women benefit?
- . Especially for projects which provide social services: What is the effect on the health of women and children and family?
- Have the provision and use of improved water supply/sanitation facilities resulted in a reduction of caloric output and energy for water collection?
- Has there been a reduction in water-and sanitation-related diseases, and improved personal and domestic hygiene?

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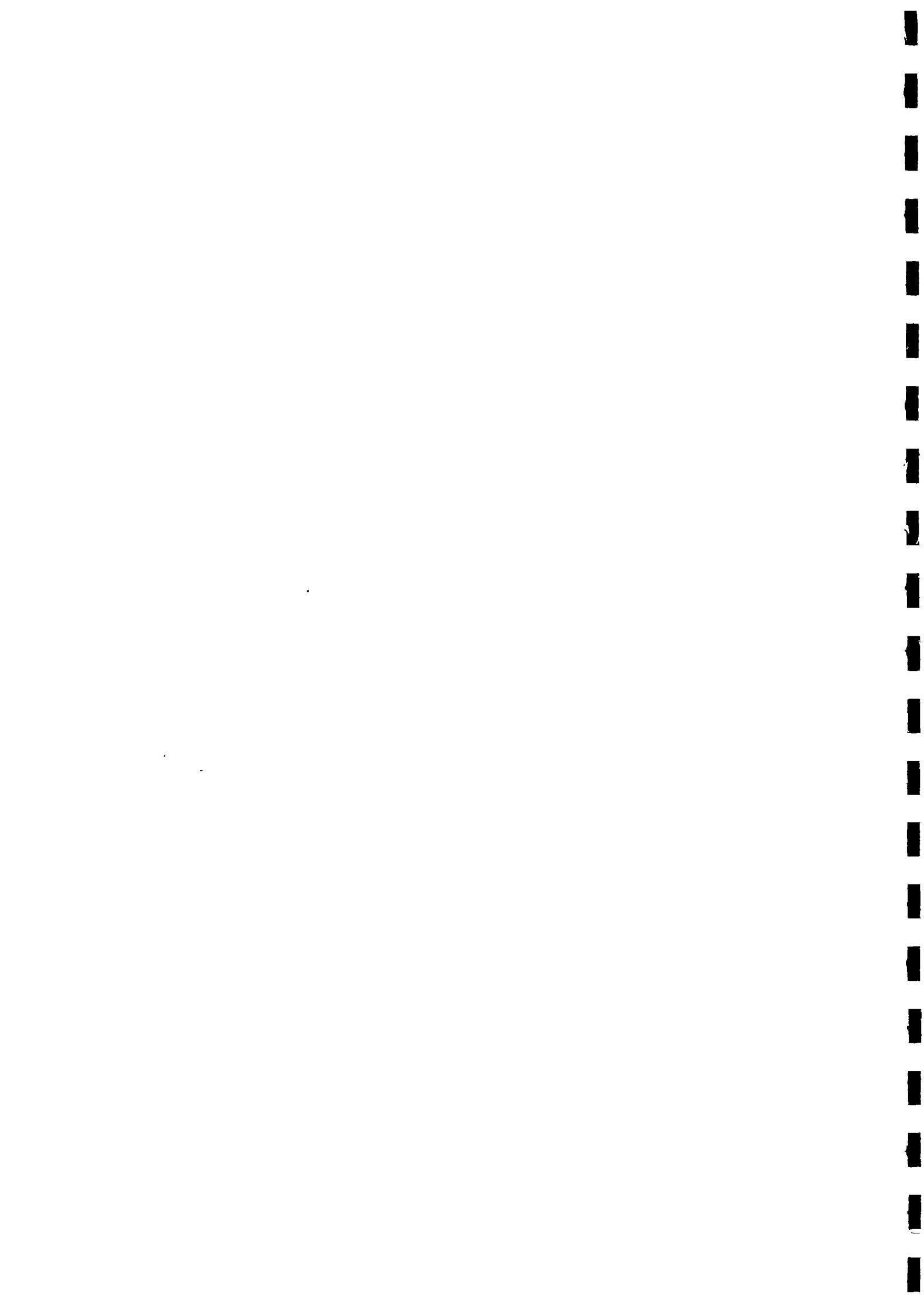
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People's Participation Project: Ms V. Grovermann, Project Manager

USAID: Ms A. Henwood, Project Officer, Rural Water-Borne Disease Control Project
Mr A. Potter, Technical Advisor, Rural Water-Borne Disease Control Project
Mr Green, Anthropologist, Project Advisor

ODA: Mr M. White, Technical Officer, Rural Water Supply Project

Council of Swaziland Churches: Mr B. Nipper, Project Manager, Community Self-Help Rural Water Projects

Emanti Esevi: Mr D. Taylor, Project Manager, Community Self-Help Rural Water Projects
Ms K. Dlamini, Community Development Officer, Community Self-Help Rural Water Projects

District Level - Hhohho

RWSB: Community Development Officer

District Level - Manzini

Ministry of Health: Health Inspector

District Level - Shisleweni

Ministry of Health:
(Nhlangano) Health Inspector
Health Assistant
Matron

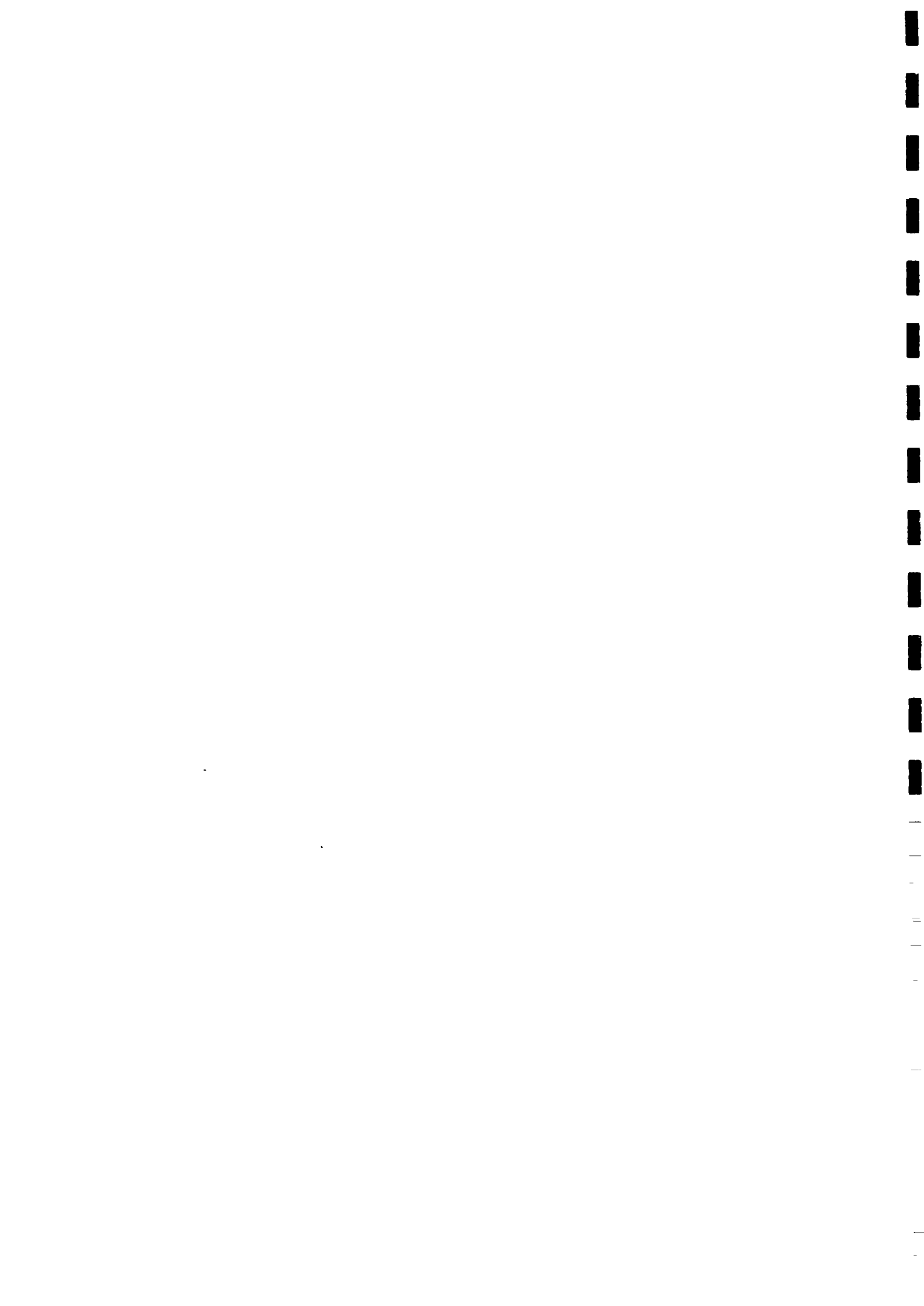
Public Health Unit:
(Sislendi) Rural Health Motivators, Training Workshop/Rural Education Centre

RWSB: Mr Mngomezulu, Community Development Officer

District Level - Lubombo

RWSB:

Community Development Officer



LIST OF COMMUNITIES VISITED DURING FIELD WORK

Year Water Scheme
Commenced Operation

Communities in EDF Lomé II Project

Shisleweni District

- | | |
|--------------|------|
| 1. Madvulini | 1985 |
| 2. Mahamba | 1985 |

Lubombo District

- | | |
|------------------|------|
| 3. Sifuntaneni A | 1986 |
| 4. Sifuntaneni B | 1986 |

Manzini District

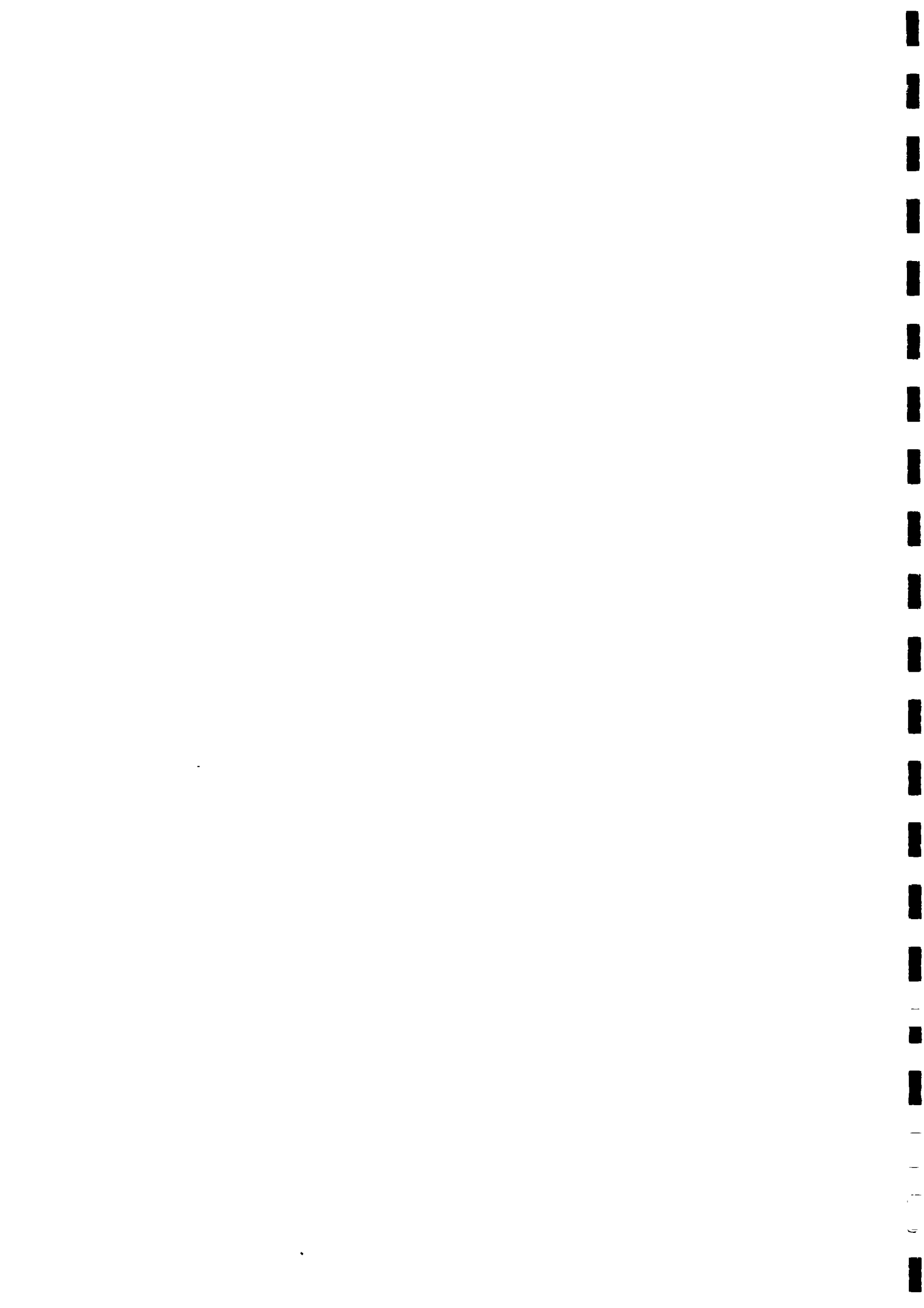
- | | |
|-------------|------|
| 5. Kabhudla | 1986 |
| 6. Mliba | 1987 |

Communities in EDF Lomé III Project

- | | |
|-------------------------------------|--|
| 7. Bushayan Komo (Manzini District) | |
| 8. Mavula (Hhohho District) | |

Other Donor-Funded Water Supply Schemes Visited

- | | |
|--|------|
| 9. Mbukwané (Shisleweni District) ODA funding | 1984 |
| 10. Endzingeni (Shisleweni District) USAID funding | 1988 |
| 11. Ntondozi (Manzini District) EDF/Micro-Projects
Funding/Emanti Esevi | 1989 |



BACKGROUND INFORMATION

Historical and Socio-Economic Background of Swaziland

Swaziland, as a Kingdom, has a long tradition of being ruled by a monarch.

The most striking feature of the political structure in present-day Swaziland is the coexistence of a modern and a traditional government side by side.

This dichotomy, which further brings about and partly explains the dualism in the economy, has its roots in the colonial era (1900-1968).

During the 19th century British and Boer settlers entered the country. Land as well as mineral rights were "given away" in concessions to the "white settlers". In 1907 the British Colonial Government issued two-thirds of the land in Swaziland to the "white settlers", leaving Swaziland with only one-third of its original area. The Swazi king was entitled to allocate Swazi Nation Land (SNL) to his people, but the freehold land of the white settlers and colonizers was beyond his control.

This situation has changed with time and at independence 44% of the country was freehold land, privately owned, and 56% SNL, communally owned and controlled by the king. In 1983 this distribution was about 60% SNL and 40% freehold land, with 82% of the Swazis living on SNL.

The king has control not only over the land, his primary power base, but also over male labour power, through the institutionalized age-graded regiment system. Regiments can be called upon to provide free labour to the Crown.

The Pre-Independence Economy

The redistribution of Swaziland under the British Colonial Government, carried out by the Concession Commission, smoothed the way for the primarily British settlers to set up large profit-making estates in the country. The eviction of the Swazis from their land in 1917 and the reintroduction of a heavy tax forced many male rural farmers to become wage labourers on the settlers' land. In addition, the small size of the land area allocated to the Swazis and its poor quality made it impossible to provide for the food needs of the growing population.

It followed, inevitably, that many male Swazis took up employment on the settlers' plantations and on large farms as well as in the mines.

The king, in turn, demanded from the migrant labourers one-quarter of their earnings to be contributed to a fund to buy back the lost land.

Booth (1982) presents an effective discussion of the objectives and the strategies used by the Commission in the allocation of land. The Commission was careful to allocate enough grazing land for cattle for the use of the Afrikaners. The Commission's main concern, however, was the provision of Swazi labourers for the plantations and especially the mines. Labour was provided by ensuring that the 32 "native areas" assigned to the Swazis would not support their human and cattle population for more than a few years at best and not at all in a few areas.

The "native areas" became overpopulated and overstocked. The combined effects of, at first, the decimation of the cattle herds, and, at a later stage, overpopulation, overstocking, landlessness, low yields and heavy taxes began a process which eventually pushed many Swazis into the labour market. By the mid-1930s, the self-sufficiency of the Swazi farmer had deteriorated rapidly and labour integration increased during the 1940s and 1950s. In fact, during the 1930s labour was considered to be Swaziland's most valuable

export. During this period the British and later South African settlers set up large farms and ranches involved in cash-crop farming and cattle ranching.

Before long, however, the settlers and mining concessionaires in Swaziland were in competition with the mine recruiters from South Africa for the Swazi labourer. In order to meet its manpower requirement Swazi industry then had to recruit labourers from Mozambique as well as rely on the work of Swazi women and children. This need for manpower particularly intensified when, during the 1940s, the forestry and timber industry saw and pulp mills were established, followed by sugar and citrus plantations in the 1950s and 1960s and the iron mines in 1964.

Booth reports how a certain timber company in the 1950s and 1960s employed a labour force consisting of 60% women and children, at the time of planting and road construction ¹⁾.

The Traditional Role of Swazi Women

The traditional system underlined the important status and role of the mother. The Swazi woman was not a perpetual minor (the present-day legal status of Swazi women under Roman Dutch law); she controlled affairs at the domestic level. A Swazi wife could personally own cattle and other small animals and be allocated cattle for her domestic unit. The mother was important in ancestral rituals, and, as a bearer of children, she was vital to the existence and continuity of her husband's lineage. Swazi married women controlled the domestic sphere and their membership was limited to kinship groups.

Men, on the other hand, were warriors, associated with the wild and with political spheres. Their membership in age-group regiments cut across kinship ties and integrated them on a national level. This influenced Swazi attitudes on the division of labour based on

¹⁾ Booth, 1982 (quoted in Tabibian, 1985 - ref. 60, Annex 3).

gender: men's work was regarded as superior to women's work, because men challenged the wild nature and fought battles, while women were confined to the less hazardous domestic environment" ¹⁾.

In many respects this gender ideology continues to shape the socialization process underlying the foundations of modern-day Swazi society: "The work of a man is superior to that of a woman". It is therefore not the type of work, or its productivity value, but the sex of the worker that gives rating to labour ²⁾.

The Political and Social Structure of Swazi Society

Since independence, a dualistic political system has emerged with, on the one hand, a parliament and a western style of administration and, on the other hand, the traditional political system with the ultimate power in the hands of the king.

The modern government is composed of a cabinet of ministers whose members are appointed by the king. The government rules the country in close cooperation with the traditional ruling class, consisting of the king, the queen mother and the aristocracy.

The king and the queen mother represent the dual monarchy, embodying all legislative, executive, administrative and religious manpower. The traditional government rules through the Swazi National Council (SNC). It derives its main source of power from the control over almost half of the land called Swazi Nation Land (SNL), which belongs to the nation but is vested in the person of the king.

The king, who is the head of both governments, rules the land through the chiefs. He appoints the chiefs in various areas. They are usually either princes or heads of important clans.

1) USAID 1989: 77 (ref. 23, Annex 3)

2) Kuper, H. 1947: 140.

For administrative purposes, Swaziland is divided into four administrative districts: Hhohho, Manzini, Shisleweni and Lubombo. Each district is governed by a commissioner and a senior district officer. Below the district level, the traditional government is in charge of the local administration. The SNC is charged with the customary law of any issues and programmes pertaining to SNL and with advising the king in all these matters.

Every adult male Swazi can, in theory at least, attend the discussion sessions of the SNC. The male-dominant and male-oriented nature of the Swazi society leaves little room for the involvement of women in politics.

The principal link between the Council and the people are the "Tinklundlas" (several chiefdoms together form a common "tinklundla"). These are the meeting places in the rural areas, which are attended by local adult males and their chiefs. A chiefdom, in turn, is made up of several wards, together composing the total area and population that comes under the authority of a chief. A chiefdom has a relatively standard internal organization and is recognized as a local administrative unit.

At the ward or community level, there is a traditional council ("libanda"), headed either by a chief or a deputy. This council deals with problems affecting the local community as well as development-related matters such as new agricultural techniques, planning the construction of a clinic or discussing the need for an improved water supply system.

Councils are typically involved in various types of preliminary planning. Once discussions commence, council members may decide on the formation of a specialized committee to carry out particular functions, such as a health committee to choose the site of a clinic or a water committee to supervise all activities necessary to initiate and manage the communities' contributions and participation in a water project.

Women, however, do not deal with chiefs directly and have to discuss business with them through their fathers or husbands. Apart from the queen mother, Swazi women have no formal political roles. At the community level, however, women may play a very active and prominent role in some of the community development-related committees.

Dualism is characteristic not only of the political system, but also of the organization of Swazi society. On the judicial level, two systems coexist, the traditional Swazi law (customary law) and the Roman Dutch law. Roman Dutch law is the general law and applies to all inhabitants of Swaziland, while customary law is restricted to cases in which all parties are Swazi.

Economic Development

The economy of Swaziland has been strongly influenced by the fact that the country is land-locked and surrounded on three sides by a highly developed country, i.e. the Republic of South Africa (RSA), while Mozambique separates it from the Indian Ocean.

The geo-strategic location of Swaziland has been an important factor in the country's economic dependence on the RSA. About 90% of the imports to Swaziland originate from or pass through the RSA, while 25% of its exports are absorbed by the RSA. Moreover, Swaziland is also a member of the Rand Monetary Area and therefore has a very open market economy which makes the country vulnerable and gives little autonomy over monetary, fiscal and pricing policy.

The open economy of the country provides almost unlimited opportunities for foreign investment.

Firstly, the Swazi Government offers generous incentives in order to attract foreign investors. Secondly, although Swaziland has a small internal market, its access to the large South African market is another point of attraction. Finally, Swaziland's location makes it a suitable place for the production of goods destined for

those African states which, opposing the South African apartheid policy, will not buy South African products.

Swaziland's economy is marked by an agro-industrial capital wage sector and an agro-pastoral communal land sector, the former producing for export (sugar, citrus, fruits, forestry and mining) and the latter producing food for subsistence consumption.

Some 70% of the total work-force is involved in subsistence agriculture, farming SNL which comprises 52% of the country's land surface, but only contributes about 7% to the GDP. The staple food is maize, and in addition sorghum, groundnuts, beans and vegetables are grown. Of the total area of SNL, about 85%, however, is devoted to cattle pasture lands. Farming on SNL is not very commercialized. Only some 5% of the farming households deliberately grow cash crops, cotton and tobacco; about 80% of the cultivated area is devoted to maize, and the small-scale SNL farm is characterized by traditional systems of cultivation, low use of inputs, lost yields and lack of marketing and credit facilities.

The economy, therefore, is dominated by privately run companies, traditional agriculture making only a small contribution to the GDP.

Sugar, which alone accounts for almost half of the export value, is almost exclusively produced on non-Swazi plantations. British capital in banking and agriculture controls a major portion of the production of wood pulp and timber and the mining of asbestos. Manufacturing and commerce remain in the hands of South African investors.

Thus, a picture emerges of large companies on freehold land, dominating commercial agriculture, forestry, mining and, to some extent, manufacturing. In 1974, almost one-quarter of the country was owned by 35 farmers and companies on freehold title land (FTL) or Individual Tenure Farms (ITF). At present ITFs are no longer owned exclusively by non-Swazis, as, recently, Swazi individuals and companies have also purchased portions of the freehold land.

At present ITFs occupy about 40% of the total land area and consist of crop land, commercial forests and pasture land. This commercial agriculture produces some 60% of the country's total agricultural output.

Although agriculture accounts for 30% of the GDP, the prosperity of this sector has been limited to commercial agricultural enterprises almost entirely owned by expatriates and foreign countries. It is therefore inevitable that great disparities should exist between the incomes of the SNL farmers and those in the commercial sector.

Agricultural development efforts on SNL have been limited for the most part to those rural areas selected under the Rural Development Areas Programme (RDAP). The RDAP aims at achieving self-sufficiency in food production and reducing migration to the urban areas.

Since 1970 there have been agricultural projects in various parts of the country on SNL to stimulate the acceptance of "modern" agricultural production to increase self-sufficiency and cash cropping. By 1983, the main objectives of the RDAP had failed, for food imports had increased, as had migration in search of wage employment. Booth points to the Government's underspending of agricultural funds by 48% during the Second Development Plan and the concentration of funds on irrigated farms, and concludes that the Government's priority clearly lies with commercial agriculture¹⁾.

"It would appear, in short, that in spite of the various assertions of dualism and parallelism of a "modern" and a "traditional" sector, in fact there is in Swaziland a single agricultural economy, in which one sector, embracing most of the land containing the bulk of the population, is helping to subsidize the other."²⁾

1) Booth, 1982 (quoted in Tabibian, 1985 - ref. 60, Annex 3).

2) Booth, 1983, page 92 (ref. 36, Annex 3)

Although some 70,000 Swazis work in South Africa, the great majority of Swazi workers find work - often as weekend commuters - within Swaziland itself. Some 25% of the paid wage labour force is female. Although almost all adult men go into wage employment, almost half are not in paid work at any one time. Some 42% of adult males have been reported as being employed in farming ¹⁾.

Non-Formal Education, Training and Self-Help Development
Assistance Programmes Available to Rural Women

The Handicraft Department of the Ministry of Commerce, Industry and Tourism (MCIT) trains, supervises and supports producers of handicrafts, an estimated 90% of whom are women. Training consists of short courses lasting a few weeks in a variety of skills, such as sisal work, basket-weaving, necklace-making, ceramics, etc. Plans also exist for the MCIT to collaborate with the National Textile Corporation of Swaziland to supply materials at special rates, and subcontract to sewing production units of the UNDP WID project graduates, MCIT handicraft promotion units, Zenzele groups, SEDCO estate enterprises and PPP groups.

The Small Enterprises Development Company (SEDCO) is part of the Small Enterprises and Handicraft Project. Funded by the UNDP, UNIDO and the ILO, it provides technical and financial assistance to eligible Swazi entrepreneurs, at least 65% of whom have been women. Its activities are carried out in three different ways:

1. Assistance to those who have skills, but lack the means to start production;
2. Assistance to those who already have a business, but seek help to expand it;
3. Suggesting a line of employment to the would-be self-employed people. The training programme consists of motivation training, management training, conducting feasibility studies and project preparation. Those individuals who settle on SEDCO

¹⁾ de Vletter, 1983.

estates are expected to move out upon completion of the training and open their own businesses.

The Lutsango Vocational Training Centre offers eight-month courses in needlework, handicrafts, sewing, knitting, crocheting and cooking skills, mainly to school-leavers. The objective of the training is to assist women in securing skills for self-employment.

Several NGO Church and Evangelical Organizations offer income-generating training courses in sewing/handicraft production, vegetable-gardening and poultry raising.

The Catholic Mission offers a two-year training programme in handicrafts and small livestock to school-leavers.

The ten Rural Education Centres located throughout the rural areas offer training courses to both men and women, but 75% of the participants are women. Sewing, cooking, knitting and literacy courses are offered at the centres.

One of the largest income-generating training programmes is the UNDP-funded Women in Development Project, whose objectives include training rural women in i.a. sewing, machine knitting, carpentry, metalwork and handicrafts; introducing and disseminating rural labour/time-saving technology; and setting up a revolving loan fund in order to facilitate access to capital for graduates (see Subsection 3.1.10).

Five training centres have been set up in different parts of the country, and over 2,000 women have received training of up to four to five months' duration. Although the training is largely based on traditional women's occupations, there has been increasing interest over the years in less conventional, more technical activities. One of the major shortcomings which has been reported concerning this programme is its lack of business and management skills. Many of the teaching staff lack the entrepreneurial knowledge and know-how for setting up a small business. Further-

more, research has shown that over 50% of the graduates are not able to use the skills they have acquired ¹⁾.

The USAID-funded Swaziland Manpower Development Programme (SWAMDP), which began in 1985, has provided innovative training to the Home Economics Extension Workers of the Ministry of Agriculture and Cooperatives, who have then been in a position to train the Zenzele groups. Over 5,000 rural women have participated in the training workshops and seminars.

Recognizing the community mobilization and development potential of Zenzele groups, "this project was set up to encourage the formation of more Zenzele groups, expand the quality and quantity of the training of the women and improve communication between male extension workers and Zenzele groups" ²⁾.

The first type of training provided to Zenzele groups is participatory leadership training (see Annex 7). The objective of this is to increase the women's problem-solving capacity and self-reliance. Subsequently, training has been conducted in or near the communities where the women reside in i.a. knitting, handicrafts, sewing, bookkeeping, vegetable gardening, pig farming, block-moulding, and fruit tree and vegetable cultivation.

This training has been followed up by business management training - a much needed skill for these women's groups ³⁾. The Home Economics Extension Workers have been provided with the necessary business skills to be in a position to advise Zenzele groups as to the feasibility of undertaking various income-generating activities or micro-enterprises as well as to train the Zenzele groups in such business management skills as carrying out simple feasibility analysis studies themselves.

1) Netherlands Development Cooperation, 1988: 30 (ref. 45, Annex 3).

2) USAID, SWAMDP, 1988: 7 (ref. 61, Annex 3).

3) Netherlands Development Cooperation, 1989: 161 (ref. 46, Annex 3).

In this way, in future, the Zenzele groups should be in a position to make better and more informed choices about the type of economic activities they wish to undertake, and to plan and manage them more effectively.

Plans exist to carry out sensitivity training seminars for the male agricultural extension workers to improve their communication with women's organizations and encourage them to work with them.

A recent evaluation study of this project recommended that a micro-enterprise advisory unit should be established within the Home Economics Section of MOAC in order to provide assistance to Zenzele groups engaged in income-generation in planning, organization, analysis and management.

Furthermore, it was recommended that support should be provided to Zenzele groups in the marketing of their product, for example in assisting with the development of regional marketing outlets ¹⁾.

The Community Development Department of Tinkundela, which is in charge of the UNDP WID project, also manages the People's Participation Project (PPP) funded by the FAO. The PPP gives support, advice and assistance to small groups, 85% of which consist of women, who are involved in starting production activities, particularly in the agricultural sector.

In addition to providing access to credit through special agreements with banks (see Subsection 3.1.10), the PPP trains the group members in basic group organization, income generation and monitoring and evaluation. The training workshops take place locally and cover subjects such as simple record-keeping, planning, marketing, saving and monitoring. It is worth noting that the PPP has developed symbol language to involve illiterates in record-keeping and monitoring.

¹⁾ USAID, SWAMPD, 1988. 41-42 (ref. 61, Annex 3).

Ten women's groups are involved in activities such as poultry raising, pig farming, brick-moulding, tin-bucket making, maize and cotton farming and sewing. The groups are assisted with their group organization, feasibility studies and income-generating activities and with monitoring their activities.

While the PPP itself does not provide agricultural extension assistance, it collaborates with the Swaziland Farm Development Foundation, an NGO which provides agricultural extension assistance in vegetable gardening, maize and cotton cultivation, etc.

An important feature of the PPP is that it works in the rural areas where no other projects or organizations are active.

As already discussed in Subsection 3.1.10, the PPP has set up a guarantee fund at the Swaziland Development Bank, which enables its women's groups to receive loans without having to provide collateral. Unlike the loan applicants of the UNDP WID project, PPP group loan applicants do not need a husband's or male relative's signature for loan repayments, because they apply for a loan as an organized group.

In the near future, the PPP has plans to organize a training seminar for credit officers at Swaziland Development Bank to sensitize and train them, so that they will be in a better position to advise and assist the groups applying for loans. The PPP also acts as an intermediary for its groups, seeking assistance from the EDF Micro-Projects Fund.

The EDF Micro-Projects Fund provides assistance to community-based, small-scale, self-help development efforts. Either the community, or a women's group, for example, can apply for assistance with a project in agriculture, social infrastructure, rural water supply, sanitation, etc., with the community group contributing one-third of the cost either in kind (land, materials, labour) or in cash. Many women's groups have used this assistance to carry out pig-farming or poultry-raising projects and vegetable gardening. In

addition, many women's groups have initiated community self-help water supply projects with the Fund's assistance.

Efforts are now under way to establish an EDF-funded Revolving Fund for Micro-Businesses and Self-Employment Schemes. This fund is to complement the existing Small-Scale Enterprise Revolving Fund, which only provides loans of E 5,000 and above. The EDF Micro-Business Fund will be targeted, in particular, at those women entrepreneurs who face legal constraints in obtaining credit from commercial banks. Women's groups will thus be able to receive loans without collateral. The objective is to stimulate the formation and growth of women-run micro-enterprises. In addition, the project has a specific goal of stimulating non-agricultural small business activities.

ZENZELE LEADERSHIP TRAINING/PARTICIPATORY TRAINING TECHNIQUES

The techniques used to train both rural women and the Home Economics staff have included lecturers, discussions, demonstrations, study tours and participatory, experiential techniques.

It was not until the World Education/Tototo workshops in October 1987 that the techniques of experiential, adult learner-centred training were fully understood, and training using this approach has since been widely adopted. One of the most valuable outcomes of the Tototo training has been that, although it was centered on leadership training, the content and scope of the workshop was such that it has given the Home Economics Officers the skill and ability to use these techniques when providing training to Zenzele groups on other topics.

The primary advantage of the participatory training methodology is its focus on learners. Traditional training methodologies tend to focus on the teacher, the subject matter or a combination of both. ~~The assumption is that a trained~~ teacher, well versed in the subject matter, will be able to teach effectively. Little thought is given to the learners, their backgrounds and experience, characteristics, their individual needs, and their reasons for being present in a learning situation. A fundamental precept of adult education is that adults learn best when these are taken into consideration.

The participatory method involves the learners in identifying the reasons they might benefit from training. It takes into account their training needs and the experiences they bring to the training which may be of benefit to others in the learning group. It establishes realistic, measurable objectives that should be the result of their proposed teaching/learning activities. Learners are therefore involved in setting their own objectives based on their perceived needs and their own experiences. The teacher does not concentrate on a predetermined curriculum, but rather on meeting the learning

* Excerpt out of: Zenzele and Bolomakhaya, The Impact of Training Investments, Swaziland Manpower Development Project, USAID, Trans Century Corporation, Mbabane, Swaziland, July 1988.

objectives agreed on by the group. This is accomplished with the assistance of the group.

The role of the teacher/trainer is to design creative learning activities in which learners participate. Most often the learners are involved in this design process. These activities provide practice in carrying out the actions or creating the products identified in the objectives. Sufficient practice is provided during the teaching/learning activities to ensure that all learners in the group are able to meet the objectives.

This methodology is experiential and success oriented. The goal is for all learners to meet all the objectives. Appropriate practice in meeting the objectives is provided. Evaluation of the learning is based upon the achievement of the objectives established at the beginning. The process of learning is not complete until all learners have met all the objectives.

This participatory training through SWAMDP should continue. These techniques will be used during the business management training planned for later this year. SWAMDP should support further training of trainers of this nature and should assist the staff of the Home Economics Section develop the materials and skills needed to use this methodology in other aspects of their work, such as the planned introduction of nutrition and agriculture training.

The second successful training techniques used by SWAMDP has been demonstration, which is followed by practicing the new skill. People learn by doing, and Zenzele women are no exception. Tomlinson's business survey questionnaire contained the question "How do you learn best?". Invariably the response was that the women learned best by doing it for themselves after demonstration. Much of the SWAMDP training has been conducted this way, with the exception of some of the earliest leadership and committee formation lectures.

The opportunity to immediately practice what has been learned is not possible with very large groups of people. For this reason, the large demonstrations supported by SWAMDP were restricted to simple topics, such as soya bean cookery demonstrations. The introductory beekeeping demonstrations conducted by the senior Home Economist in the Hhohho region were

of this type.

Materials have been developed in support of SWAMDP training activities, but these have usually been simple one-page handouts related to the training topic involved. The World Education/Tototo workshops changed the way Home Economics Officers look at training materials. They now wish to develop materials for trainers and learners which specifically meet the needs illiterate rural women. The production of training materials will require further attention from SWAMDP should the proposed record-keeping training be implemented. Consideration should also be given to supporting the production of new training manuals within the Home Economics Section so that what has been and will be achieved with leadership and business management training can be fully documented for future use.

Any materials developed for use by rural women must take into account the fact that fully one-third are illiterate. The most appropriate materials will therefore be posters, pictures and handouts using symbols instead of the written word.

The development of Zenzele women as instructors has been an important achievement under SWAMDP. It has been a form of leadership training in its own right, and has provided rural women with successful role models. There are any number of examples of Zenzele members being trained in the new fine quality sisal weaving going on to become instructors not only in their own regions but throughout the country. In addition, the Mayiwane women were supported as instructors for a two-day grain and water storage tank construction demonstration. This was open to other Zenzele groups and to the community at large and received coverage in the national media. Not only did this expand the market available to the Mayiwane women, but it also gave them added status in their own community.

However, it should be noted that when these types of training relationships become too close, the training can become less effective. Where Zenzele women are used as instructors for groups of which they are members the results have not been as successful. This is well understood by the Home Economics Officers, but financial constraints have sometimes prevented training being conducted by members of different groups.

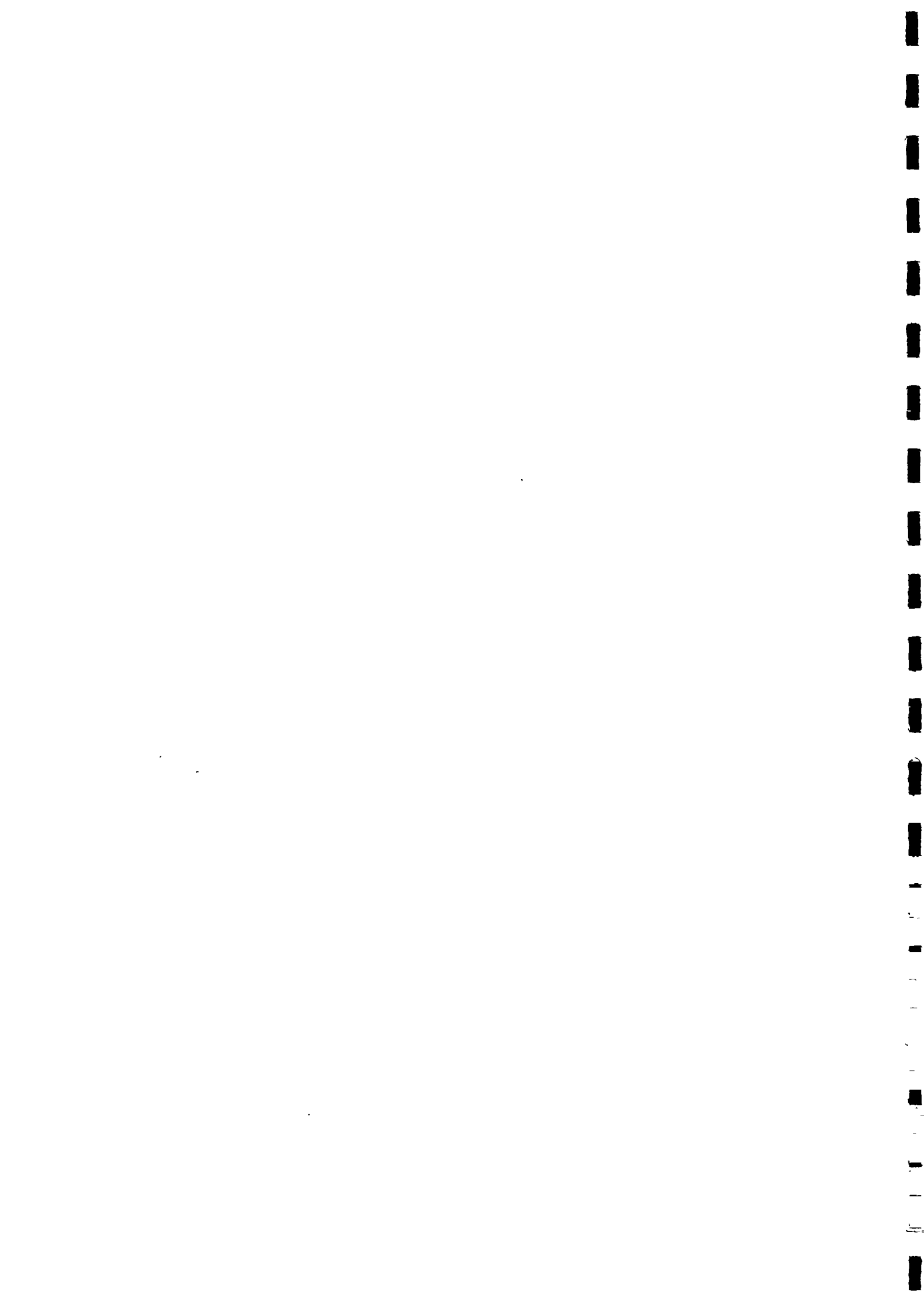
Similarly, it has proven more successful to train all the

members of one group, as opposed to training one or two members and expecting them to transfer their new skills and knowledge to the remaining group members. For reasons of cost effectiveness and to ensure that as many groups as possible have access to training many of the earlier trainings conducted under SWAMP were open to a limited number of members of several Zenzele groups. Only the most solid and cohesive groups benefitted from this approach.

CONTRACT OF RECIPROCAL RESPONSIBILITIES FOR THE OPERATION
MAINTENANCE AND REPAIR OF COMMUNITY WATER SUPPLY SCHEMES

R.W.S.B.	COMMUNITY
<p>In order to guarantee to the rural population a water supply of sufficient quantity and quality throughout the year, R.W.S.B. and the community of mutually undertake to:</p>	
R.W.S.B.	COMMUNITY
<ul style="list-style-type: none"> - Provide follow-up and back-up support to Water and Sanitation Committee and Water Operators/Attendants; - Provide training and refresher-training to committee members in management, bookkeeping, health, education, etc., as well as to Water Attendants/Operators in maintenance and simple repairs and operation of electrical and pumping equipment; - Provide periodic preventive maintenance inspections, servicing, lubrication and major repairs of equipment (e.g. generators, pumps, pumping equipment, electrical equipment, etc.); - R.W.S.B. undertakes to provide repair service within 72 hours after being alerted of breakdown. 	<p>Water and Sanitation Committee assumes responsibilities for:</p> <ul style="list-style-type: none"> - Ensuring availability of Maintenance Funds to pay for all recurrent operation and maintenance costs; - Enacting regulations concerning access, hours of operation, utilization, water use and tariffication policy; - Ensuring efficient operation and maintenance and simple repairs (taps, intake drains, cleaning reservoir/settlement tanks, digging and re-filling trenches in case of pipe burst; ensure cleanliness of waterpoints and area; - Water Operators/Attendants will carry out all operation, simple maintenance/repair tasks.

In case of non-respect of engagements agreed to by said community, R.W.S.B. reserves the right to cease operation of water supply system, after a warning period. In case of non-respect of engagements by RWSB or non-provision of repair service within a reasonable delay of time, the community can first notify R.W.S.B. National Headquarters and then appeal to District Commissioner



RECOMMENDATIONS CONCERNING EEC ASSISTANCE IN GENERAL TO
THE RURAL WATER AND SANITATION SECTOR

1. The preparation, design and approach of rural water supply and sanitation projects determine the possibilities of integrating women. Information on the existing socio-economic distinctions between men and women in their separate roles, needs, tasks and incomes is of crucial relevance in preparing water and sanitation projects.

It is recommended that during the planning and project preparation phase, community analysis studies or rapid socio-economic field surveys be carried out in the project area to collect separate data for women and men on their roles, the division of labour, workload, water-use needs, income and financial responsibilities for household expenditures.

In addition, it is essential to ascertain existing constraints for women as well as their priorities with regard to water and sanitation. When planning the project, each decision involving the choice of technology, the siting, location and timing of meetings, training approach, etc. should be made in ways that increase rather than decrease women's participation.

2. It is important that local or foreign social scientists/WID experts are included in the feasibility/identification missions in order to plan the rapid field surveys and information collection methods and make a qualitative assessment of women's roles and needs. Unlike most government socio-economic surveys which focus almost entirely on the status of the male household head, it is necessary to use data collection methods which collect separate socio-economic data on both men and women in the household.

Furthermore, consultations with local women and discussions with women's leaders should take place in order to:

- identify women's needs in relation to water and sanitation

- reveal the important roles women have to play as partners in planning and decision-making, as local managers of the operation and maintenance as well as economic producers of the cash to fund the cost recovery system
 - permit the design of water supply schemes to be based upon women's actual patterns of water use and their preferences and constraints.
3. Government socio-economic household census surveys and reports are inadequate to determine the affordability of the projected O&M costs and do not provide a basis to assess the feasibility of cost recovery. Such surveys indicate the average annual income of the male household head but do not reflect the income of the female household head or the female household members. It is therefore recommended that during the appraisal stage of water supply projects affordability studies be carried out in the project area to determine who within the household will be responsible for paying the O&M costs and whether they have sufficient revenue to do so.
 4. Rural water projects which are based upon cost recovery schemes and community financing require adequate community resource generation possibilities. In the interest of sustaining the functioning of the water supplies as well as ensuring an equitable access to them, it is essential that water projects take measures to ensure that the beneficiary communities possess sufficient community financing resources. Coordination should be sought with other government services, NGOs and donors operating in the project area to provide services and inputs necessary to improve the income-earning capacities of the community members, particularly those with the most urgent cash needs - the female household heads.
 5. Project selection criteria which include the community's financial ability to collect its maintenance fund within a limited time period - in other words, its short-term financial capacity - implicitly favour the wealthier, economically-advantaged communities. The initial provision of improved

improved water supplies to the wealthier communities - to the exclusion of the poorer communities - only widens the gap between rich and poor and increases the disproportionate allocation of services within the rural areas.

Very often, in project areas where there is a high rate of male labour migration, the poorer communities contain a large number of female-headed households. This type of project selection criteria ultimately discriminates against those communities with a large proportion of households which are economically dependent upon women.

Hence, different selection criteria should be applied which reflect a community's long-term ability to generate the funds to cover recurrent maintenance costs, as well as its potential to manage the operation and maintenance of the improved supplies. These criteria include the community's organizational capacity and its past experience in community self-help projects.

6. Proposed project activities should be critically examined to see whether they promote the involvement of women as both agents and beneficiaries throughout the project cycle. In the design of project activities, women must be approached as active participants in their community and independent actors in their own right. Otherwise, if a gender-neutral approach is applied, there is no guarantee that women will participate on an equal basis.

7. The approach and also the quality of the community development extension activities and training are largely decisive for the effectiveness of the participation of the local population in general and for that of women in particular. In order to ensure women's involvement in all project activities, it is essential that the community participation strategy applied includes the active involvement of women as one of its aims. The promotion of women's participation should be explicitly

thorough assessment of the integration of women in the project.

14. The appointment of female technical experts to provide assistance and back-up support to national rural water supply implementing agencies in the promotion of the role of women in water supply and sanitation is an important measure for the enhancement of the participation of women.

15. It is recommended that the EEC includes either a country-wide or regional WID coordinator/advisor as part of the permanent EC Delegation staff, who would be responsible for advising and coordinating, on a country-wide or regional basis, all WID issues for all the EC delegations within the country or geographical region. This person could provide backstopping and assistance in the identification and preparation of projects and ensure that the water and sanitation projects are designed and implemented in ways that integrate women throughout the project cycle.



