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MID-TERM REVIEW

MTWARA - LINDI WATER SUPPLY PROJECT

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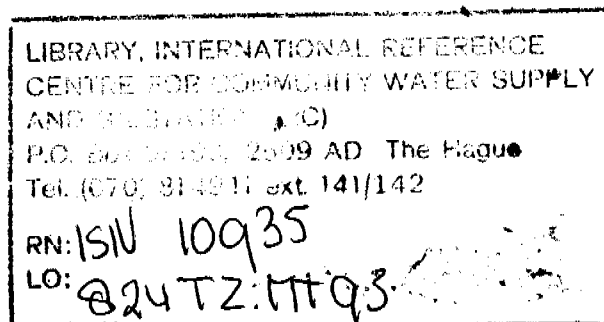
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The midterm review of the FINNIDA-supported water supply project in Mtwara and Lindi had only a short period available for its tasks. It therefore relied heavily on the commitment of a large number of people to make this review activity effective. The midterm review team would like to express their thanks to all those involved for devoting their time and energies into making this possible. Particular thanks are due to the Regional Development Directors and the Regional Water Engineers and their staff of both regions and the FINNWATER Management Adviser for the tremendous amount of support provided to the team. Throughout the evaluation, government officers and project staff, from national to community level, were very supportive to the review process. A large number of community members gave up their time to discuss water supply project issues with the team and this is gratefully acknowledged.

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ACRONYMS AND ABBREVIATIONS

AFYA	Ministry of Health
CDTF	Community Development Trust Fund (NGO)
CP	Community Participation
CPA	Community Participation Adviser
DWE	District Water Engineer
EEC	European Economic Community
ESA	External Support Agency
FIM	Finnish Marka
FINNIDA	Finnish International Development Agency
FINNWATER	Consortium of Finnish companies involved in the Mtwara/Lindi water project
IRC	IRC International Water and Sanitation Centre
MAENDELEO	Ministry of Community Development, Women and Children Affairs
MAJI	Ministry of Water, Energy and Minerals
MIS	Management Information System
MPWSS	Makonde Plateau Water Supply System
NEMC	National Environmental Management Council
NGO	Non-Governmental Organization
O&M	Operation and Maintenance
RIPS	Regional Integrated Project Support
RWE	Regional Water Engineer
SIDA	Swedish International Development Agency
TAS	Tanzanian Shilling
TOR	Terms of Reference
TOT	Training of trainers
UNICEF	United Nations Children's Fund
VWC	Village Water Committee
VWCT	Village Well Caretaker
VWF	Village Water Fund

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0. EXECUTIVE SUMMARY

This mid-term review was carried out between 6 and 15 October 1992. As it became clear that FINNIDA would partly or completely withdraw the funding of the project, the objectives of the mid-term review were, next to the assessment of progress, problems and solutions, also directed to the risks of this funds stoppage to the sustainability of the projects achievements.

The FINNIDA-supported rural water supply projet in Mtwara and Lindi regions in Southern Tanzania started with a Master Plan Phase in 1972. The implementation phases were characterized by a pure parallel organizational structure. Integration of the project into the MAJI structures started in 1988 (Phase V) but is not yet completed.

The FINNIDA support to the rural water supply development in Mtwara and Lindi regions is in its last phase, called the Phasing-Out Phase, 1991-1994. In Phase V the transformation of the project started from a construction-oriented, resource-driven project to a community-based and sustainability-oriented project. It was found that the re-orientation of technical MAJI staff, from construction-oriented providers of services to supporters of village water supply management in a partnership with the village is rather a difficult process which does not come overnight. Progress on this re-orientation is noticed but still limited. The re-orientation was found needed to create an environment and establish an approach facilitating long-term sustainability of rehabilitated and new water supply facilities. The Water Policy approved last year further supported development in this direction. The mission concludes that although some progress has been made at this moment, the development and establishment of an effective partnership between the village, and the district and region is not strongly founded as yet to get a consolidative basis for long-term sustainability.

It must be noted that the original project objectives for this Phase were re-directed in the beginning of this Phase. Support to the management of community point source water supplies and to the development of an organizational structure of the Makonde Plateau Water Supply Systems became the foci of the objectives.

For Mtwara region the project activities during the first two years of Phase VI (1991 and 1992) were very much influenced by a stoppage on the supply of materials from FINNIDA. The stoppage was due to a ban on the supply of materials and the discussions between FINNIDA and MAJI (national and regional level) on issues related to the local contribution on purchase of materials and equipment through FINNIDA. The resulting lack of materials and spares adversely affected particularly MAJI Mtwara in its progress in the rehabilitation of both shallow wells and piped water supplies. This frustrated MAJI

staff in Mtwara very much. Lindi region suffered less from these problems.

PROJECT MANAGEMENT AND INSTITUTION BUILDING

The integration of the project into the Tanzanian institutions is nearly complete.

As most expatriate advisers were stationed in Mtwara with a predominant implementation role more than advisory role, the MAJI staff in Lindi region had somehow to operate more on its own in planning, budgeting, ordering etc. This seems to have had a positive impact on the regional capacity and institutional development. In general there is still room for institutional improvement, particularly in terms of organizational efficiency and abundance of staff at technician level and below. Technical capacities within MAJI are well developed. MAJI staff in Lindi's region and districts recognized increased institutional capacities through improved well-equipped workshops and implementation equipment.

Some project components do still run parallel to MAJI including the ordering and distribution of materials. The accounting system of the FINNIDA-component is not very transparent for MAJI, which made planning for new activities somehow difficult.

The post of O&M adviser remained vacant as no suitable candidate could be identified. This has adversely affected the further development and establishment of an O&M system for the water supply systems which was indicated as a key activity in Phase VI, and some other O&M-related activities.

The training adviser arrived only in August 1991 for a one-year period. Two community participation advisers (CPA) were recruited locally and are stationed in the two regions.

At village level the institutional development continued through the establishment of Village Water Committees (VWC), training of village leaders, VWC-members, and Well Caretakers. The effectiveness of these village-based institutions is very unclear as villages miss basic tools for repair of handpumps, spare parts are not available and an O&M system with cost-sharing is not operational as yet.

COMMUNITY PARTICIPATION AND COST-SHARING

Community participation being a concept with more than only free labour in construction but also recognizing villagers as managers of their water supply facilities started off in 1988. The development of this concept received only serious attention in Phase VI. The present community participation approach puts emphasis on the responsibilities of the users, i.e. they have to establish a VWC and have to collect money for their O&M funds. The roles and responsibilities in the

partnership between village and support levels are not clear yet, and support structures have not been put in place. For instance villages have no tools to repair handpumps and no access to spare parts, and have no information on actual costs of O&M for different systems. The absence of this enabling environment is a constraint for effective and sustainable community management of water supply systems.

The mission has the opinion that MAJI (at the national level) could be instrumental in the translation of the Water Policy into clear guidelines and strategies. This could further include the development of basic models for effective community management in partnership for different types of water supplies.

Community participation activities were mainly implemented by two CPAs who work through MAJI channels. Almost exclusively FINNIDA funds are used for training courses etc. The present community-oriented approach requires from MAJI staff a positive attitude towards this approach. Good coordination with MAENDELEO, the responsible institution for community development, is recommended.

Community participation activities included methodology development, training of trainers and village capacity building. More efforts have to be made to develop community participation capacities at district level. This will facilitate continuation of community participation activities related to water.

The Water Policy puts much attention on the cost-sharing aspect to recover O&M costs for water supply facilities. Although water used to be a free good for the last 20 years, the acceptance of this cost-sharing principle seems in general to be quite high provided that water supply is reliable and adequate. This is particularly so as in both regions water is scarce and badly accessible.

It is obvious that community management can only be effective in villages with a functioning water supply system. This stresses the need for continuing rehabilitation of non-functioning systems, particularly the handpump and gravity supply systems.

OPERATION AND MAINTENANCE

As said before no O&M system has been developed and established as yet. This means that in most villages no tools for handpumps are present, that there is no spare parts procurement and delivery system, and no back-up system from the district level. The mission feels that the establishment of districts spare-parts shops, which could run on a revolving fund basis, is a conditio sine qua non for the sustainability of improved water supplies. It is recommended that such a system is established with support from FINNIDA.

In a number of villages, village funds have been created and well caretakers trained. The real costs for O&M, important information for the financial management system at village level, are still not known. The mission therefore recommends that the project soon comes to realistic cost estimates. The costs for O&M are generally expected to be within the financial capacities of most households, particularly for the handpump and gravity piped systems.

TRAINING AND CAPACITY DEVELOPMENT

This component of the project received more attention than in earlier phases. The two years of Phase VI were however too short to result in sufficient trained people required to operate, maintain and manage the rehabilitated water supply systems. Therefore there is a need for continuation of these activities for some more years to come.

To make all involved people knowledgeable of the promoted approach, more orientation on the partnership approach between villages and support levels is to be given to all levels including specifically the district leaders and departmental staff.

To facilitate the continuation of the community participation and training activities, it is recommended that the contracts of the present two CPAs advisers are extended to the end of 1994.

The effectiveness of the trained well caretakers is doubted as no O&M system is in place as yet. Follow-up of training through monitoring of performance and on-the-job training by district O&M staff is to be introduced.

Limited funds at the Tanzanian side sometimes resulted in postponement or cancellation of planned training courses, e.g. the important pump operators course. The present training programme is obviously financially not sustainable without donor funds. However, if trainers at district level are trained, they would take care of continuation after 1994.

PHYSICAL IMPLEMENTATION OF WATER SUPPLIES

Data on achievements were particularly in Mtwara difficult to obtain, although a management information system had been set up by FINNWATER. The system was not sufficiently institutionalized and is presently not operative anymore.

The project output for Mtwara region was during 1991 and 1992 very much influenced by the stoppage and delay in material supply from abroad.

According to information from the Lindi's RWE's office the region constructed 51 new shallow wells and rehabilitated 418 existing ones. For Mtwara region less than 50 shallow wells were rehabilitated with FINNIDA support. It must be noted that local and international NGOs also supported the construction and rehabilitation of shallow wells in this region. In Lindi 2 new single-village piped supplies were constructed and 6 single-village systems rehabilitated, while in Mtwara three piped supplies under rehabilitation in Phase V were carried over to this phase and are not yet completed.

The percentage of (partly) functioning piped supplies systems is in both regions very low: for Mtwara about 20% and for Lindi about 27%. Of the shallow wells in Lindi region 74% was operational according to information from the RWE's office. Using this information, the mission concludes that the physical activities progress well in Lindi region.

The mission concluded from observations that the potential for rainwater harvesting as a supplementary water source is very high in many areas of the two districts. A study on rainwater done in this phase did however not result in satisfactory results and the management adviser decided to do no field-testing. The mission would recommend the Tanzanian government or local NGOs to do some pilot and demonstration projects in the regions based on experiences in other regions in Tanzania, using local or donor funds.

ENVIRONMENTAL ISSUES

The mission has observed and learnt from regional and district staff that environmental degradation is increasingly becoming a threat for the scarce water resources in the regions. This refers both to the quantitative and qualitative water characteristics. The main contributing factors are deforestation, shift cultivation and bush fires. Control measures to prevent environmental degradation should be discussed with the villagers, as there are conflicting interests in land use. There is need for increased collaboration on environmental issues between different departments including forestry, agriculture, natural resources, water and community development.

MAKONDE PLATEAU WATER SUPPLY SCHEME

The mission has the opinion that the studies conducted under Study Phase I are of high quality. The papers presented and the discussion during the Seminar on this scheme in April 1992, very much contributed to a better understanding of the problem and the potential for different institutional and financial options. Seen the TOR of Study Phase II, the mission has confidence that this phase will result in a good framework for the establishment of an autonomous organizational body to operate the Makonde Water Supply Scheme.

In view of the changing political climate and the new Water Policy , the mission has confidence that the proposed institutional structure (Water Board) and the suggested cost-sharing principle for the Makonde Water Scheme will be acceptable.

CONCLUSION

The mission noticed progress in the development and establishment of a community-oriented approach in the project areas. In a number of villages, cadres have been oriented and trained to take up roles and responsibilities in community management of their water supply systems. However, in the partnership relation, the support from district and regional level required to make this community management effective is still missing. This support system comprises an operational O&M system including effective spare parts distribution system and district-based O&M back-up support. To make the water supply systems sustainable these have to be further developed and established. This requires also training at different levels as explained above.

As the project aims for sustainability of the water supply systems the mission strongly recommends to continue funding of activities related to community participation, operation and maintenance, and training, to the end of 1994. In financial terms this would imply an estimated donor fund allocation of less than 1 million Finn marka per year for 1993 and 1994 which is less than 25% of the originally allocated budget amount.

The mission has the opinion that if the project does not continue with the above mentioned activities, the achievements in community capacities, partly developed community-oriented approach and other training achievements, may not be sustainable resulting in breakdowns of presently functioning and used new and rehabilitated water supply systems.

The mission also recommends that non-used funds allocated for material supply for 1991 and 1992 can still be used for the procurement of materials required for rehabilitation of shallow wells and gravity piped water supplies presently under rehabilitation.

Furthermore, specific recommendations have been formulated for FINNIDA, MAJI at the national level, and MAJI at the regional/district level.

1. INTRODUCTION

1.1 PROJECT HISTORY AND PROJECT SETTING

The cooperation between the Government of Tanzania and the Government of Finland in the water supply sector started in 1972. The geographical area earmarked to receive Finnish support in the water supply development was Mtwara and Lindi regions in the south-eastern part of Tanzania. A feasibility study and the preparation of Regional Water Master Plans preceded the actual start in 1978 of a series of implementation phases which continued until the end of 1987. During this period of 10 years the main Project objective was to construct as many water supplies as soon as possible. The Project was organized through an implementation unit entirely outside the MAJI structures: i.e. a parallel project set-up, which fitted well in the project strategy of the Implementation Phases. In 1987 it was observed that more than 50% of the constructed water supply systems were not functioning. As main reasons were identified lack of funds and skills for proper management, and for operation and maintenance (O&M). But other reasons included the organizational approach followed in planning, implementation and management of water supply systems, and the weak institutional and community capacities to sustain the water supply systems.

Phase V (1988-1990) aimed to correct this situation of poor O&M and management of the rural water supply systems by emphasizing the institution building aspects and the integration of the project in the MAJI organization. The main targets of Phase V, also called "Integration and Institution Building Phase", were the development of management, operation and maintenance systems, development of manpower and establishment of an effective system of community management for the handpump wells in order to create a "sustainable water supply system" in Mtwara and Lindi Regions. Although the Project was supposed to be integrated into the MAJI organization during Phase V, it continued to maintain a more implementation-oriented than an institution-building approach.

The Evaluation of Phase V (beginning 1990)¹ revealed that in order to reach sustainability of the water supply systems, much was to be done including issues such as institution building, community involvement, O&M procedures and support, and cost recovery.

Therefore, continuation in Phase VI was justified.

¹. Report of the Evaluation Mission January-February 1990.

1.2 PHASE VI: AIMS AND STRATEGY

While Phase V was the Integration and Institution Building Phase, Phase VI was called the "Phasing-out Phase", and definitely the last phase to receive financial support from the Government of Finland.

The development objectives of Phase VI were to consolidate the existing water supplies, and to provide additional sustainable supplies through rehabilitation and new construction. Safe and reliable water supply would lead to improved health and to economic development.

Sustainability was the key word in the defined strategy with elements as community involvement, cost-sharing for O&M, improved management, O&M procedures and performance-oriented training.

1.3 MID-TERM REVIEW OBJECTIVES

The initial main objectives of the mid-term review were (i) to analyze the chosen Project strategy and priority setting of activities versus Project objectives, identify problems and identify solutions and directions to reach set targets, (ii) to make recommendations for the remaining period, and (iii) to make a risk analysis on institutional, social and political aspects if the Project would be interrupted prior to the originally set date. These objectives were discussed and agreed upon between FINNIDA and the mission coordinator in Helsinki on 3 September 1992.

Upon arrival in Tanzania, the mid-term review mission was briefed at the Embassy of Finland. The modified Terms of Reference were handed over and further explained. The major alternation in the TOR was that the time horizon of the Project had changed: the Project is definitely going to end the beginning of 1993 instead of the end of 1994. The earlier mentioned "risk analysis" and the recommendations towards the Tanzanian Government therefore had to become the major focus of the mid-term review, in addition to the conventional "review". Important questions to raise should be whether the present Project and achievements sufficiently strongly established to continue functioning and if not what areas were to be addressed as priorities in the remaining time or as additional post-Project activities? Furthermore, plans for the Makonde Plateau Water Supply Systems were to be assessed for viability in the context of the changing political and economical climate in Tanzania. In addition, the TOR were extended with a number of environmental issues.

For the full TOR of 28 September 1992 with environmental issues see Appendix 1.

1.4 MID-TERM REVIEW METHODOLOGY

The mid-term review was undertaken during the period 6-15 October 1992. The review mission team consisted of the following persons:

- Mr Jo Smet sanitary engineer IRC, teamleader
- Ms Evelien Kamminga sociologist
- Mr Michael Daffa environmental officer NEMC
- Mr Don Ishengoma civil engineer representing MAJI

The itinerary is attached as Appendix 3.

Discussions were held with the Embassy of Finland, the Ministry of Water, UNICEF, and SIDA before leaving for the Project area: Mtwara and Lindi Regions.

In the Project area group and individual discussions were held with government and Project staff at regional and district level, and with community members in a number of selected villages. In these villages, water supply facilities were visited. Furthermore, some training institutions, used by the Project for training courses, were visited.

At the end of the mission a presentation on the preliminary findings of the review mission was made to government and Project staff of Mtwara and Lindi regions followed by discussions. In Dar es Salaam, the Embassy of Finland was debriefed on the preliminary findings, conclusions and recommendations. The Ministry of Water informed the team that debriefing on the mission's results could not take place on the scheduled date. Debriefing at MAJI was done by the two Tanzanian members of the mission's team. The draft summary of preliminary findings and conclusions of the review mission was handed over to the Embassy of Finland and the Ministry of Water on 16 October 1992.

2. MTWARA-LINDI WATER SUPPLY PROJECT

2.1 PROJECT OBJECTIVES

The main objective of Phase VI of the project for is to consolidate the existing water supply facilities implemented in earlier phases of the project. Existing non-functioning systems are to be rehabilitated and new systems be constructed in the framework of the project.

As the project has reached its final phase (Phasing-out Phase) the main aim is to arrive at a sustainable state of the improved water supply systems through consolidated clear management procedures at departmental and community level. Therefore, managerial and O&M skills and involvement of communities has to be boosted.

The immediate objectives formulated in the six so-called sub-projects are directly linked to this general aim of sustainability.

Phase VI consists of the following six sub-projects:

- Project Management and Institution Building
- Community Involvement
- Cost-sharing
- Operation and Maintenance
- Training and Manpower Development
- Physical Improvements to Increase Water Supply

In the Project Document for Phase VI (January 1991) the immediate objectives and the achievement indicators have been clearly formulated. For each immediate objective components, outputs and output specifications, as well as tentative schedules of activities have been specified to a very great detail.

The activities would be carried out by the MAJI offices in the regions and districts in Mtwara and Lindi. MAJI would be "... in full charge of all activities and bear the main responsibility for the achievement of the project objectives" (Project Document, January 1991).

The Government of Tanzania would provide funds, manpower, materials, transport etc. needed for implementation and O&M of water supplies. Contributions from beneficiaries for implementation and O&M were also envisaged on the cost-sharing principle. FINNIDA would provide funds for part of the material requirements and training. Including the advisory services the Government of Finland input would be FIM 21 million for the four year period (1991-1994). The Project Document (January 1991) also states that "... The material support by FINNIDA would phase out gradually during Phase VI, and arrangements were to be made to provide funds for the development and O&M of water supplies from other sources".

Soon after the start of Phase VI, FINNIDA re-directed its project targets at: (i) autonomization of the Makonde Plateau Water Supply System and (ii) institution building for point source water supply management. FINNIDA's view was that all FINNIDA-supported activities should serve these two objectives. It did not become clear for the evaluation mission to what extent this re-direction of targets and objectives has been discussed and agreed with the GoT or whether this was a unilateral decision.

2.2 PROJECT STRATEGY

The Project Document indicated for each sub-project the specific strategies.

The Project Strategy in Phase VI, as stated in the Project Document of January 1991, is that the MAJI regional and district offices will be in full charge of the implementation of all activities.

The number of external consultants will be further reduced to stimulate and facilitate full integration in the Tanzanian government structures. The material support will be gradually reduced during this phase. Furthermore, resources allocated to water supply schemes must be sustainable beyond the project period. This stresses the need for capacity and facility development within the absorption capacity of the involved institutions.

The community involvement in management of water supply systems will be accelerated through capacity development. Two local Community Participation Advisers will continue to work together with MAENDELEO staff and with MAJI Training Coordinators in order to expand and consolidate the community involvement methodology.

In respect of the cost-sharing, clear and simple procedures will be developed to facilitate the mobilization of communities. The principles of the Water Policy will be followed.

3. MID-TERM REVIEW FINDINGS

3.1 PROJECT MANAGEMENT AND INSTITUTION BUILDING

The immediate objectives of this sub-project are (Project Document, January 1991):

- consolidation of improved management systems and procedures developed during previous phases
- effective management of funds, facilities, communication and transportation system, manpower and material

3.1.1 History on Project integration

The integration of the project into the MAJI structures was started during Phase V, and in view of the phasing-out of the donor support it became a crucial element for achieving sustainability. The FINNIDA-supported project started-off in 1972 and was since organized as a nearly pure parallel project outside the Tanzanian government structures. This project organization was viewed at that time to be the most efficient organizational set-up for the "crash implementation programme". As the involvement of MAJI staff was minimal, the result was that low numbers of MAJI staff were trained by the project. Another constraint was that project staff who left the project did not join MAJI but most likely the private sector. Furthermore, institution building of MAJI and responsibility and commitment of MAJI staff over the constructed facilities was low. Only in 1988 (Phase V) the change towards more integration in the national organizations was initiated. It was obvious that this adjustment or re-orientation would take much time for both consultants and government staff, particularly considering the long duration of the previous organizational set-up.

Integration of the project into the Tanzanian structures coincided with a reduction of funds for implementation of water supply systems in Phase V. However, in Phase V emphasis was put on training of MAJI staff in management and organization. In terms of efficiency, MAJI and the other Tanzanian organizations involved were not able to run the project as efficiently in terms of output versus resources as the previous "parallel" project organization unit.

3.1.2 Institution building: some constraints

According to information obtained, the less efficient organization within MAJI and some incidents in Mtwara region in 1990 and 1991 gave rise to a halt in the supply of materials by FINNIDA. It is beyond the mandate and capacity of the Mission to judge this decision. A task-force from MAJI Dar es Salaam looked into the case, but the conclusions of this task-force were not available to the Mission. Clearly

the decision to stop the material supply to Mtwara adversely affected the relationship between the donor/consultant and MAJI Mtwara Region, and so also the institution building goals and activities in this regional office. This ban on material supply to Mtwara was effective between March and October 1991.

In the project document for Phase VI it was stated that as from 1992 a proportion of the FINNIDA material support would be reimbursed as an input from the Government of Tanzania (local contribution). The percentage would start with 10% and yearly increase with 10%. The same was stated for the "training and community participation activities", where the reimbursement by "MAJI" would be 20% in 1993 and 40% in 1994. It was not clear which MAJI level was meant and it was not acceptable for MAJI that they would be the only contributor. This reimbursement principle and the procedures and conditions of payment created several misunderstandings between the GoT and FINNIDA. Discussions took place between the Tanzanian Government and FINNIDA to clarify these issues. A further delay in the procurement of material and equipment for construction of new and rehabilitation of non-functioning water supply systems for both regions was the result. At the time of visit of the mission, the negotiations between MAJI and FINNIDA had lead to agreements on terms and procedures of the local contributions. The period of postponement in ordering of materials was effective in the period November 1991 to August 1992. At the moment of the review the required materials/equipment had been ordered but delivery was not expected before the beginning of 1993.

In practical terms as a result of the stoppage on the supply of materials and equipment, MAJI Mtwara was nearly dormant for two years (1991 and 1992) as far as physical implementation on construction and rehabilitation of both shallow wells and piped water supplies is concerned. This situation, judged as unfair by MAJI staff, caused serious frustrations among MAJI staff in Mtwara.

The MAJI office in Lindi was only affected by the delay on material supply because of the discussions on the 10%-local contribution. As will be seen in chapter 3.6 the reported physical output of Lindi Region remained relatively satisfactory as this region had a good buffer stock of materials.

3.1.3 Integration and regional institution building

As in the previous phases most expatriate advisers were stationed in Mtwara with a predominant implementation-oriented management role more than an advisory role. Therefore, in Lindi the MAJI staff involved in the project had and has to operate more or less on their own. This concerns activities as planning, budgeting, ordering materials etc. The presence of a low number of expatriate staff in Lindi Region seems to have had a positive impact on the regional capacity and the

institutional development. Regional and district level MAJI-staff in Lindi recognized increased institutional capacities e.g. their available technical skills and well-equipped and organized workshops and construction equipment. Lindi region has also established well-equipped Regional Maintenance Units.

The integration of the project into the MAJI organization is nearly complete. Throughout this phase, the issue of integration remained high on the agenda of the project. All stores have been handed over except the one for spares for advisers' cars which are not serviced by the MAJI garage. This implies that all ordered materials are delivered to the RWEs' stores. However, the parallelism of the project was still visible in the procurement of materials and equipment (by Management Adviser) and in the engagement of the two Community Participation Advisers (and earlier the Training Advisor), whose role is presently not advisory but very much implementation-oriented. Together with the FINNWATER management adviser, all advisers operate from a small FINNWATER project unit located within the MAJI compound, with its own accounting system, facilities, transport and other resources.

MAJI staff indicated that the accounting system of the FINNIDA project component is not very transparent for them, which makes planning for new activities somehow difficult.

3.1.4 Project Planning

Most of the project planning activities are done by regional and district MAJI staff with support from the advisers. Except for the Community Participation and Training activities in which the local consultants took a lion's share in planning and implementation. Lindi region and districts are, however, apparently more independent in this respect.

3.1.5 Expatriate staff and local consultants

Nearly all tasks which were previously carried out by expatriate staff, have now been taken over by MAJI staff at regional and district level. During the first part of phase VI the number of expatriate staff was three: the Management Adviser, still in the project, and a water supply adviser and a construction adviser. The latter two advisers had both left by the time of the review.

Two major areas of weaknesses requiring increased attention during this phase were supported by local consultants: (i) for training development one consultant was contracted and (ii) for community participation two local consultants continued their contracts started in the previous phase. The training adviser staid on for one year only, while the two region-based community participation advisers are foreseen to continue until the end of the project period.

The Training Adviser was contracted from the Rwegarulila Water Resources Institute in Dar es Salaam, the in-house training

institution of MAJI. Although the initial idea was to have a broad training programme covering both the regional and district institutions, and the village level, emphasis was almost entirely put on the village level. This was in line with the FINNIDA re-direction of the Phase VI targets; one being institutional building for point source water supply management.

According to the planning of the Training Programme (July 1992) a large number of training activities directed to regional and district MAJI staff were planned for the period July 1992 -December 1994. More details on the training and capacity development aspects are covered in chapter 3.5.

The post of O&M adviser remained vacant as no suitable candidate could be identified. One candidate was not cleared by the Tanzanian government on grounds of inadequate qualifications and experiences.

Establishment of a reliable O&M system was one of the sub-projects. For the development of sustainable water supply systems an effective O&M system is a paramount requirement. The absence of an O&M adviser contributed to the failure of the project to develop and establish an effectively operating O&M system. Most work on this component remains to be done. The training of pump mechanics for piped schemes planned to be conducted at Mtongwere was cancelled, although O&M manuals on different pump types were available in Kiswahili language. Regrettably, these were not used neither distributed.

The FINNWATER Management Adviser is presently the only expatriate staff member. He plays a low-key role in project management, taking up the role of "adviser" which is sound for the present phase. On the other hand he has much control over the FINNIDA funds (a.o. for material procurement) and FINNIDA-paid advisers and consultants. FINNWATER, the consultant, continued operating from a separate FINNWATER block of offices within the MAJI Mtwara compound. The group of FINNWATER and FINNIDA-paid local consultants used to have their own monthly meetings on all project issues. A local consultant for FINNIDA-funds accounting has been recruited as well.

3.1.6 Monitoring and information management

Monitoring and information management appear to be generally weak. Monitoring is vital for long-term success. The project should be able to produce basic data such as the status of village water supplies, breakdown rates, and so on. Therefore, good monitoring systems should be established.

In the previous phases the project started a computerized Management Information System (MIS), including information on numbers of wells constructed, respective dates and their location, training data, and other relevant project information. The MIS was set-up by Finnish advisers but the institutionalization into MAJI was at best insufficiently done. None of the MAJI staff was sufficiently trained to

continue the established MIS. The system is not used anymore. The present FINNWATER Management Adviser does also not use the MIS. MAJI should consider the training of a present staff member in computer skills or recruit capable staff to revive the existing MIS. However, the mission agrees with the defined project strategy that first a reliable "manual monitoring" system is to be established before a computerized system can be effectively operational.

3.1.7 District level institution building

Recognition on the need for to build up a strong institution and develop capacities at district level has increased over the last few years. However, the roles and responsibilities of the districts and the regions has to be further defined and agreed upon. The mission has the opinion that more responsibilities could be transferred to district level and certain roles at the regional level be further developed. MAJI HQ could consider to increase its role in steering this decentralization process.

The districts face serious problems in financing planned activities; collection of revenues and taxes is low and the actual central government contribution may go down to 50% of the budgeted amount. These constraints make effective functioning very difficult; e.g. not sufficient funds available for staff per diem, for fuel etc. required for O&M support visits to villages.

3.1.8 Village level institution building

At village level the project paid attention to the commitment of village leaders and Village Water Committees (VWC) on their roles and responsibilities. Through community participation activities (described in chapter 3.2) village leaders and committees in a large number of project villages received information and training. Furthermore, as a result of the technical training conducted, about 170 villages now have each two trained Village Well Caretakers. Their effectiveness is, however, doubted as many of them do not have access to basic tools; and spare parts are not available and further support on O&M from the district level is hardly to be expected for reasons given above.

In Mtwara Region apart from FINNIDA support, a number of other ESAs are giving support to the water sector. These include UNICEF, EEC, CDTF, Red Cross Society, Cashew Improvement Programme, Swiss Relief Organization, religious organizations and others. Several organizations came in to support the rehabilitation of water schemes after the destructive floods of 1990. In Lindi Region the number of supporting organizations other than FINNIDA is less.

The Makonde Plateau Water Supply System is discussed separately in chapter 4.

3.1.9 Conclusion

The mission concludes that the stoppage on supply of materials has had particularly for project activities in Mtwara Region serious implications for implementation of project activities and therefore for the project progress. At the regional level in Mtwara hardly any activity related to water supply except community participation and training took place: no physical implementation, no monitoring (follow-up safaris), etc. The main bottlenecks indicated by MAJI staff include lack of transport, materials, funds for transport and allowances. The past two years gave an impression of the level of activities that the RWE's office would be capable to continue without donor support. It directly shows that the implementation activities, monitoring systems, all started up with much financial donor support, are not sustainable for continuation in the present MAJI organization. Project management in Mtwara region related mainly to training and community participation activities with a continued large share from the donor and local consultants. Construction and rehabilitation of water supply facilities took mainly place from the DWE's offices as these are responsible for shallow wells. With the prevailing constraints on availability of funds, construction will remain low and merely depending on external funding through ESAs.

3.2 COMMUNITY INVOLVEMENT AND COST-SHARING

3.2.1 Introduction

Community involvement is a relatively new phenomena within the Mtwara-Lindi Water Supply Project. It was not until Phase V (1988-1990), that it was fully realized that without more active community participation (CP) sustainable functioning of the improved water supplies would never be achieved. In October 1988 the project recruited two senior Community Participation Advisors (CPAs), both with working experience within MAENDELEO, to develop the CP component. Most of the costs of CP activities have been covered by the project. Continuation of financial support for the execution of activities and the salaries of the two CPAs are foreseen until the end of Phase VI.

The new Water Policy of Tanzania, which became effective in November 1991, has given a strong impulse to the CP activities. According to this policy, safe water is no longer provided for free, but all citizens - rural and urban - should take responsibility for the operation and maintenance (O&M) of their water supplies. "Cost sharing" is the basic principle of this policy. This implies that community members have to change their role from being passive recipients of free services to one of being (co-) managers and financiers. The establishment of Village Water Committees (VWC) and Village Water Funds (VWF) are considered important instruments to achieve this change.

3.2.2 CP activities and achievements

After a short preparatory period, CP promotion activities started in 1989. The expectations were high. The project Document for Phase VI, for example, stated that "strong community involvement is the most important factor influencing the sustainability of water supplies at the present situation and therefore shall be strongly emphasized during this phase". According to the Project Document the immediate objectives of the CP project component are:

1. promotion of the use of safe water and hygienic habits to make improvement of health of the population in the project area possible, and
2. increase of reliable availability of safe water by community involvement in all stages of the development of water supplies and by cost-sharing.

These objectives refer to effective utilization and functioning of water supplies. They cannot be achieved by CP activities alone. In addition, no quantitative or qualitative information is available on the actual use of improved water sources by the population, nor on hygiene behaviour. The mission therefore has focused on activities defined in the Project Document. These are:

- the development of an appropriate working approach,
- community training in (i) mobilization skill and (ii) effective utilization of water and hygiene behaviour, and
- mobilization of communities to participate in all phases of the project cycle.

a. Development of an appropriate working approach

The development of an appropriate working approach for CP promotion has been an important task for the CPAs during the first half of Phase VI. Considering the short period and having started from scratch, much progress has been made. The report, "Revised Concept and Working Approach 1991-1994", (October 1992), gives an overview of the experiences so far. Furthermore, in this report concepts, methods applied, target groups, organizational and institutional set up and content of the activities are evaluated and plans for the future presented in this project document.

Although the concept of 'community involvement' is not clearly defined in the Project Document, the general interpretation seems to be that CP implies above all that villagers contribute (in labour, cash or otherwise) during the various phases of intervention and afterwards in the O&M of the water supply. Social mobilization through education is seen as the best strategy or method: explaining to communities what their

new roles and responsibilities are. Most CP activities so far took place along these lines.

Nevertheless, in the above mentioned report, "Revised Concept and Working Approach", the importance of involving communities as equal partners and in decision making throughout the whole process, has been clearly recognized. To achieve this, however, not only communities have to change, but also the agencies involved. It requires a fundamental change in approach on the side of the project/MAJI. The approach will have to become less construction and supply-oriented and more consumer-oriented (see further under c.)

b. Community training in mobilization skill and effective utilization of water and hygiene behaviour

As mentioned before most CP activities have so far been focused on training in 'mobilization skills' of: 1. staff of various governmental organizations at Regional and District, and to a lesser extent at Divisional level, party leaders, women's organization representatives etc. and 2. village leaders (men and women). Project report, "Community Participation Activities October 1988 to July 1991" gives an overview of the activities undertaken. Most of the relevant government personnel at the Regional and District level would have received the Training of Trainers course in mobilization skills. About 25% of the villages in both Regions would have participated in courses for village leaders. All the villages involved are located in the pilot areas: 7 selected Divisions, covering each District in both Regions (3 in Mtwara and 4 in Lindi Region).

In Mtwara Region 68% of all villages and in Lindi Region 45% of all villages are reported to have a VWC. The number of established water funds is much lower: 19% out of all villages in Mtwara and 25% out of all villages in Lindi. In nearly all pilot villages (128 in Mtwara and 83 in Lindi Region) Water Committees have been installed. This is only the case in half of the villages which have not yet been covered by the mobilization programme. The mission has not been able to verify these figures.

Education and transfer of information are seen as the most effective methods for achieving the goal of social change in the villages. Issues presented during the mobilization seminars are:

- the New National Water Policy (cost sharing, establishment of water committees and water funds)
- mobilization skills
- public health and sanitation
- water source protection
- management and leadership (management of water schemes, self reliance, cost sharing)

Hygiene education, like in all previous Phases of the project, has received limited attention. No specific activities have been developed in this field, but to some extent subjects, such as water-borne diseases and basic hygiene practices, have been integrated in the curriculum of the mobilization courses. Project staff has the opinion that this should be the task of AFYA personnel.

In addition, some training in community management related tasks has been given. Training of village well caretakers (VWCT) is considered a task of the Training Section and is not seen as a specific CP activity. A start has been made with training of VWCs in setting up a financing system. Also, some village treasurers were trained in bookkeeping. This sort of practical training seems to be very much appreciated by the communities and it is recommendable to continue experimenting on this line and to elaborate practical manuals.

c. Mobilization of communities to participate in all phases

The development of a systematic approach to encourage and facilitate communities to participate in all phases is under preparation. A good start has been made by taking the request from the community as a point of departure for giving assistance. There are no systematic procedures of involving communities systematically in decision making during the process of planning, implementation and O&M. Experience in other countries has shown that giving communities the opportunity to become (co-)managers of their own water supplies is positive for the development of a true feeling of ownership and for the sustainability of the water supply systems.

In order to attain a higher level of community involvement, social mobilization is not enough. Institutional adaptations are needed as well. Technical and social activities will have to be better coordinated and synchronized. The role of MAJI should be in the first place to facilitate village initiatives. A first step has already been made in this direction by taking the explicit request of a community as a point of departure for assistance. Community members -men and women-, however, will also more than before have to be systematically involved in decision making throughout the process of planning, design, construction/ rehabilitation and O&M in order to develop a feeling of ownership and responsibility. It is this sort of Community Participation which has not yet received sufficient attention and which is crucial for obtaining sustainable results. More community involvement in construction and O&M has been the priority so far. Most CP activities have been focused on informing communities about their duties in cost sharing and on mobilizing communities to create water committees and to collect money for the water fund.

For measuring progress in CP activities the project uses the following quantitative indicators:

- number of water committees installed
- number of water funds established
- amount of money available in the funds
- number of workshops organized and numbers of participants

These figures have little meaning, because the project Document does not give any numerical targets. No information is available on the quality of the CP activities, such as the quality of the various workshops organized or the acquired knowledge of the participants. Very little insight exists on the impact of the CP activities. How are the VWCs functioning and what kind of support do they get from the community? What are the VWFs used for? What problems have the VWCs and pump caretakers solved and how? What problems do communities have in taking responsibility in O&M? What extra inputs are needed to strengthen capacities for community management? etc.

This lack of information can to a large extent be explained by the following arguments:

- follow up visits by CPAs and District personnel (MAJI and/or other departments) to communities are rare. Personnel and logistical constraints play a role, but also lack of institutional back up and integration of CP into the other activities of MAJI.
- few VWCs have had the opportunity to become fully operational. In the first place many communities do simply not have a functioning water supply to take care of. In the second place most communities are still lowly involved in decision making concerning the rehabilitation and running of their water supplies. They are still told what to do instead of being treated as equal partners.
- Village water funds are often not yet used, because -in the case of piped schemes- a cost sharing system has not yet been installed or -in case of water points- tools and spare parts are not available. Therefore, not having collected any money may not necessarily be an indication of poor performance. Most Village Water Fund have balances not even sufficient to purchase a bib-cock or a basic handpump spare. In view of the high inflation rate (30% per year), saving large sums of money in a Village Water Fund may not be the best option to operate a Village Water Fund.
- many pump caretakers can not practise their skills, because they do not sufficiently have access to tools and spare parts. There is no spare part distribution system as yet.

3.2.3 Institutional and financial aspects

At this moment CP activities are to a very large extent under control of the two CPAs at Regional level. They play a major role in the planning, organization and execution of all CP training courses. In addition, when there is a concrete CP problem in a particular community, it is usually the CPAs him/herself who go there with a MAJI and/or MAENDELEO person from the District. In both regions a section head at the RWE's office has been appointed to be responsible for CP. For them, however, CP is only one task among several others. In addition, in Lindi, at regional level, a water technician has been given the opportunity to specialize in CP.

Decentralization of CP activities from regional to district level has also insufficiently taken place. Activities are still very much dependant on inputs of the CPAs and financial and logistical support provided by FINNIDA. For these activities to become sustainable, they should increasingly become an integrated part of the district institutions' activities including the district MAJI and MAENDELEO offices. The CPAs should only play an advisory role.

In the fore mentioned document "Revised Concept and Working Approach" it is stated, that the regional and district MAJI offices should assume responsibility and provide full support for the CP activities related to water supply at village level. Collaborating Ministries such as MAENDELEO and AFYA should continue to give support as usual but RWE/DWE should take the lead. The mission agrees with this approach.

Because MAENDELEO as an organization is responsible for community development activities in general, they have clearly a role to play, especially in communicating the New Water Policy and the so-called mobilization activities. At the more concrete implementation level however, coordination and synchronization of technical and social activities are very important in order to facilitate community influence on decision making and to establish a relationship of partnership. Considering the limited resources (i.e. personnel and transport) of MAENDELEO, AFYA and other Departments, it is important on the one hand to have realistic expectations of their inputs and on the other hand to utilize their strengths in an optimum way. It is therefore recommended:

- a. to strengthen the social mobilization function of field personnel of MAENDELEO, AFYA and other relevant Departments, NGOs, political party representatives, etc. Their major task should be to provide communities with accurate information on the new Water Policy; procedures for receiving assistance; examples of community financing systems and cost estimates for O&M; clear definition of responsibilities and roles of communities, District Council, DWE and other parties involved etc. The regional and district MAJI offices -with assistance of

the CPAs- should be responsible for developing a good information package (and keeping it up-to-date) and to train personnel of relevant organizations (TOT). (See Appendix 5 for an example of a public information package.)

- b. to develop a minimum of CP expertise within MAJI itself in order to:
- introduce a more consumer-oriented, demand-driven and partnership-oriented approach within MAJI; in that way MAJI staff would be re-orient itself from providers of services to supporters of local initiatives;
 - identify and ensure measures which facilitate communities to actually (co-)manage their own water supplies (access to spare parts and tools; access to skill training (village well caretakers, VWC members etc.); availability of precise information on procedures, costs estimates etc.
 - facilitate follow up CP activities. On an ad hoc basis assisting individual communities in community management issues.
Secondment of MAENDELEO personnel at RWE and DWE level could be a potential option in this respect.

Financing of CP activities have so far totally depended on project funding. Continuation of funding, with an increasing local contribution, is foreseen up to the end of Phase VI. A stronger commitment of MAJI in terms of personnel and funding allocation will be necessary to make CP promotion activities sustainable. It is unlikely that MAJI will be able to take full responsibility within a very short period. Not only lack of means, but also lack of understanding on the importance of CP and its implications seem to play a role. CP promotion and awareness raising will therefore have to continue within MAJI as well.

3.2.4. Willingness and ability to pay

Various studies in the project area (WASH report no. 246 and the Makonde Plateau Phase I Study) have shown that the willingness of community members to contribute towards a water supply services is likely to be high provided these services are reliable. This would be especially the case in those areas where water is scarce and hard to get. On the Makonde Plateau, for example, during the dry season women have to walk several hours to water sources in the valley and then bring the water up the escarpment to their village.

An indication of the willingness to pay for water is the widespread phenomena of water vending in the project area. Selling of water from ground tanks in which surface runoff water is collected during the rainy season is quite common on the Makonde Plateau. Other vendors, usually men, collect

water by bicycle at distant water sources, transport it back to the village and sell it. Prices for water are said to range between 50-100 TAS per 20 litre bucket, an amount much higher than any of the currently proposed water rates. Unfortunately, no information is available on the actual number of people who buy or sell water or their socio-economic background.

An unknown number of communities in the project area have a history of buying water from water kiosks. During colonial times the Makonde Water Supply Scheme was installed and people had to buy water per bucket from kiosks.

The mentioned studies also show that the "ability to pay" needs special attention. The suggested selling price of 3-5 TAS per bucket (Makonde study), however, seems presently affordable. Interviews during the mission confirmed this. A couple of villages already run their system on the basis of payment per bucket.

It is important to notice, that the real costs of running and maintaining water supplies in the project area, varies enormously according to the technology and local conditions. The O&M costs of point water sources and piped gravity supplies are likely to be within the capacity of most people. Concrete cost estimates are still lacking, but need to be urgently made. While in certain areas cheaper alternatives for pumped piped water might be an option, in parts of the Makonde plateau this seems not to be the case. In some villages with a broken down piped system improved wells could be installed to the satisfaction of the population. Clear guidelines are needed for subsidies on the O&M costs of water supplies. Service level and ability to pay should be factors taken into consideration.

It is important that communities with point water sources or a single-village piped supply scheme receive information on the real costs of O&M and that they are allowed to choose their own financing system. Assistance in setting up their own system is an important CP activity. In larger, multi-village schemes a management board (or scheme committee) could be established in which decisions are taken concerning sharing available water quantities operating hours, scheme O&M responsibilities and tasks, financing etc. Village Water Committee representatives can form the Scheme Committee.

Women in the project area generally have no or very limited financial resources of their own. As a result they will in general depend on the willingness of their husbands to provide money for water charges. In discussing this issue with various project collaborators opinions on the consequences varied. Some emphasized that it is for this reason important to introduce the cost sharing principle through the village leadership in order to get their full support. To better understand the consequences of the introduction of cost sharing for the position of women, especially their access to

improved water supply and financial burden, it is recommended to collect information on this gender issue in a number of communities. The possibilities for maximizing economic benefits derived from improved water supply could also be further explored.¹

When communities are not willing to contribute or to organize themselves (VWC and VWF), there might be various reasons. The ability to pay might often be given as the only reason, but other factors might in fact be more important. A broad range of factors can influence communities' willingness. To be able to develop appropriate strategies for promoting CP, a good insight in these factors is to be obtained. In appendix 6 these factors are listed and further explained.

3.2.5. Constraints for communities to participate

CP activities are focused on preparing communities to take increased responsibility for the financing and functioning of their water supply. These efforts, however, will not lead to more sustainable water supplies, without dealing with the following constraints outside the immediate control of the communities:

a. malfunctioning or unreliability of water supplies

A large number of communities within the project area have a water supply which is out of order or unreliable. Particularly in case of piped water supplies, improvement or rehabilitation of the scheme is usually beyond their capacity. MAJI has to give assistance here. In case of point sources communities initiate improvement with some technical support from MAJI.

b. Water as a free good concept

Often, this is more a political/institutional problem than a problem for the community. There are indications that villagers are very willing to accept the cost-sharing principle, if there is a felt need for water, if they can be sure of a reliable water supply, and if the payments are within their financial limits. A certain kind of resistance to the cost sharing principle, however, was found among a good number of MAJI staff and other government personnel. They seem to feel quite ambivalent about the issue. All Tanzanians, either living in rural or urban areas, have received the benefits of free water supply over the last three decades. This latent resistance is a hindrance for promoting CP and for taking initiative in developing

¹. For economic opportunities see Kamminga (1992) Economic Benefits from Improved Rural Water Supply. IRC-Occasional Paper no. 17. The Hague, The Netherlands

concrete cost-sharing systems and even setting up an effective spare part distribution system.

In Lindi, more than in Mtwara, this problem has been recognized by CP staff and RWE. The mission was informed that during a seminar for regional and district level staff (MAJI and other departments) the principle of costs-sharing has received a lot of attention. It is recommended to continue in-house training and awareness raising in this field.

- c. Lack of concrete guidelines regarding implementation of the Water Policy.

The lack of concrete guidelines regarding implementation of the Water Policy was found to be a handicap in promoting more community involvement and establishing cost-sharing mechanisms. This also resulted in many ad-hoc decisions concerning the amount which has to be contributed. A need for clarification of roles of various parties involved was strongly felt: central and local government, MAJI (national, regional and district level) and communities. MAJI at National level could take up the task of translating the Water Policy into strategies, action plans and guidelines.

- d. Lack of information on costs of O&M and procedures

Related to the previous point, it is not always clear which part of the O&M costs must be carried by a particular community. In general, no concrete cost estimates/scenarios for the various technologies are available, not even for hand pumps. As a result communities have no idea about the real costs which they can expect and for which they can prepare themselves. Clear guidelines and cost estimates are to be developed and made available urgently as public information. One District in Lindi Region (Lindi Rural) has taken initiative in this area and monitors the cost of O&M costs of piped and point water schemes. In general the roles of the various parties involved and the procedures should be more clearly defined.

- e. Absence of a spare part distribution system

The absence of a distribution system for spares and tools adversely influences the community management initiative; see also chapter 3.3.

- f. Working approach of MAJI

Community members are still lowly involved in decision making during the process of rehabilitation and/or operation of their water supply. CP should be more integrated in the daily work of MAJI, as explained in chapter 3.2.3. The whole strategy and process of

intervention should be geared towards consumers taking initiative and having responsibility from the start. A role to be taken up by MAJI is to inspect the proper quality of the construction and to guarantee the construction and proper functioning of the system for a certain period (for instance one year). MAJI could also greatly contribute to consumers' confidence and capacity to take full responsibility for managing their water supply systems through providing sufficient training and follow-up support.

3.2.6. Conclusion

To strengthen the sustainability of the established water supplies in the project area, it is strongly recommended to continue support to the CP component of the Mtwara-Lindi Water Supply Project up to the end of Phase VI. Considering late introduction of CP by the project, it is unlikely that CP promotion activities will continue after an early withdrawal of the project. From neither financial, institutional or social point of view are the activities presently sustainable. Up-to-date CP activities depend almost fully on project funding. The rule of the 20% local contribution has not yet been applied to activities of the CP component. Measures towards more institutional integration, decentralization and capacity building in CP within MAJI and MAENDELEO are being taken and are planned. This process will take time and will not be accomplished before the end of 1994.

Recommended priorities for the next two years are:

a. Mobilization and information-oriented activities

Mobilization activities should continue in the near future until all communities have been reached. The contribution of MAENDELEO and other relevant organizations will be indispensable. Experimentation with other methods than the organization of seminars might be useful.

b. Strengthening the community participation orientation and commitment within MAJI

Maji should change its operational approach from a purely supply-driven to a more demand-driven and consumer-oriented organization. Important elements of such an approach are:

- * transparent procedures, clearly defined responsibilities and roles for all parties involved and clear regulations for subsidies and assistance;
- * establishment of an effective and sustainable spare part distribution system.

- * availability and dissemination of information on O&M costs of various technologies; development and testing of a small number of sustainable financial management systems for piped water supplies; elaboration of guidelines for cost sharing.
- * setting up of a follow up and monitoring system to follow progress and identify problems in CP.

3.3 OPERATION AND MAINTENANCE

The immediate objective of this sub-project is -as stated in the 1991 Project Document- to increase the sustainability of the water supplies by establishing a reliable O&M system consisting of adequate community involvement, effective O&M procedures including preventive maintenance, provision of skilled staff to operate and maintain water supplies, and availability of support systems at district and regional level.

Two elements of this objective have been particularly pursued during this Project Phase in order to achieve sustainability of the water supply schemes: community involvement and skilled community staff for O&M, i.e. the village well caretakers (VWCTs). The community involvement activities have been extensively discussed in the previous chapters. Clear achievements were the establishment of Village Water Committees and Village Water Funds in many villages. As the O&M and the cost-sharing systems are not operative as yet, it is too early to state that a sustainable water supply has been reached in the villages having water committees and funds established. Villagers are not yet paying for water, spare parts and repairs. As a matter of fact, the costs of O&M of different systems are not known. A good overview of such costs, or at least a system to calculate such O&M costs could have been expected of a project with more than 15 years of experience in handpumps. Such information is important to come to a good basis for the development of a financial management system at village level. The planned study on cost structure was not done as this was supposed to be a task of the O&M adviser, which post was not filled.

The mission recommends that MAJI soon comes to a realistic estimate of community/user costs for different piped water supply systems and for handpump systems.

In about 20% of all villages with shallow wells, a cadre of well caretakers is established. They have been trained in groups in the villages. But presently they can hardly function as many of them have no tools for repair of handpump, and spare parts for the handpumps are neither available at district nor at regional level. Furthermore, at district/regional level no support structures are available. In some districts the drop-out rate of village well caretakers

is estimated at more than 50%; this is based on the poor monthly reporting response from the VWCTs to the DWEs. The DWEs presently do not follow-up trained staff or do not monitor their performance. The possible reasons for drop-out are reduced motivation because most VWCTs do not have basic tools, or spares. Most VWCTs do not get incentives for the work done and time spent.

The project failed during this phase to train the piped water schemes attendants and mechanics although their training was scheduled and training materials had been developed (see also chapter 3.4 on Training). This cadre of staff is certainly needed to efficiently and effectively operate pumped water systems and reach higher sustainability for such schemes.

Actually, the districts do not know what kind of roles and responsibilities they themselves could take up in the O&M support system, apart from a store for handpump spare parts supply. The mission recommends that MAJI starts up urgently the development and establishment of an O&M support system at district and regional level. Such an O&M support system at district level could include training for VWCTs and scheme mechanics, monitoring and support visits to villages, on-the-job training in villages, major repairs and overhaul services, and borehole rehabilitation. The well caretakers should be equipped with tools to enable their effective functioning.

As mentioned earlier in this report, the fact that no FINNIDA-supported adviser on O&M issues could be found, contributed to the lack of progress on O&M issues. For instance two important studies were not done: 'cost structure study' and 'willingness-to-pay' study. On the other hand, MAJI with support from the project, could have set a direction for an O&M system, and should have prioritized the issues and started activities to establish elements of the system. As said, apart from training well caretakers, no progress on this objective was observed.

"Follow-up safaris" to monitor the project performance and schemes functioning started under the FINNIDA-supported project, and was last done in 1990. According to the last "follow-up safari" report nine different types of handpumps were installed in Mtwara. Most handpumps were of the NIRA 85 type (51%), NIRA 76 (41%) and India Mark II (6%). Although the ratio of non-NIRA pumps is low (8%) it is to be expected that for these handpumps no spare parts will be available now or in the near future. For reasons of sustainability, MAJI should strive to get standardization of handpumps per region or group of neighbouring regions. Donors should seriously consider their stand on handpump preference in view of the expected spare part supply problems if a handpump other than current standard one is selected.

MAJI at national level should discuss ways and means to secure the availability of spare parts for handpumps in rural Tanzania. National or zonal standardization of handpump

choice, with preference for handpumps for which spares can be locally manufactured, central procurement of handpump spares (local and international procurement), national distribution network, involvement of private sector, are among the issues to be considered for discussion.

The role of MAJI at regional level (or zonal level) could be to procure from national suppliers the required spare parts, tools etc., and transfer them to the districts. MAJI should encourage the up-coming private sector to take over the role of procurement and sale of spare parts. Some spares for piped supplies (e.g. bib-cock and distribution pipes) may in some towns be readily available.

At district level a spare part shop could be established and run with a revolving fund with initial capital from FINNIDA. The mission learned from the district authorities that the establishment of a revolving fund for this purpose is relatively easy at the district level compared to the regional level where a clearance from TREASURY has to be sought.

At village level, it may be considered to keep a basic stock of current spares using collected money from consumers households in the Village Water Fund. Considering the high inflation/devaluation rates, such the system of converting collected money in current spares may be financially more attractive than banking the consumers contributions.

The replacement of major parts or the entire handpump is an issue needing further attention. The mission did not get a clear picture on organizational, financial and operational arrangements on replacements. The same applies to the lack of clear arrangements for the expansion and the extension of village water schemes (handpumps and piped systems).

The mission has the opinion that FINNIDA should in their support for the remaining project period prioritize the development and establishment of an affordable and appropriate O&M system at all levels.

3.4 TRAINING AND MANPOWER DEVELOPMENT

The immediate objective of this sub-project is the provision of a sustainable system for the continuous development of management, design, construction, operation and maintenance skills of MAJI personnel at regional and district level, community employed staff and personnel of cooperating agencies.

During Phase V, Training and Manpower Development was seen as a FINNIDA-driven activity. The sustainability of this project component was judged very low as the local contribution to this component was very low.

The basis of the Training and Manpower Development of this phase was to be made through the establishment of a sustainable Training Delivery System. The other components were training programmes, materials and performance evaluation system, training of trainers, management training, skill training and special training.

As the project has not a great history in training and manpower development, the evaluation found the targets for this phase too ambitious. The establishment of a sustainable Training Delivery System is a difficult, if not unrealistic task if to attain in one single phase. Another constraint was the expectation that funding for future training activities was to come from national organizations. It is a common feature that the magnitude of Human Resources Development (in financial terms) under donor support, is far beyond the capacities of the national organizations.

This objective was slimmed down at the start of Phase VI when FINNIDA's support focus was re-directed into the institution building for point source water supply management. It was therefore decided that emphasis of this project component was put on capacity development at community level, more specifically the village well caretakers. This village cadre has the responsibility to maintain village handpumps.

The strategy followed in Training and Manpower Development included recruitment of a local training adviser for a period of one year. This consultant coming from the Dar es Salaam-based Water Resources Institute delivered his services in the period August 1991 to July 1992. His major activities would have been:

- preparation of a suitable training programme for Phase VI;
- advising the regional training coordinators;
- supervising the preparation of training materials;
- instructing trainers on appropriate training methods;
- preparation of a performance-oriented evaluation system.

When the training adviser started off his tasks, the project focus on village cadres was already set. During the period until July 1992, 17 courses for Village well caretakers were conducted with a total of 337 participants (179 and 158 from Lindi region and Mtwara region respectively). The venue of the courses was the village for easy reference to the prevailing conditions in the village. Training courses were conducted by staff from district and regional MAJI offices. Due to non-availability of the required local funds and the departure of the training advisor, no more VWCT training courses were conducted although donor funds allocated for this sub-projet have not been fully utilized (68% for 1991 and 12% for first and second quarter 1992).

Although trained village well caretakers are present in about 20% of all villages with handpumps (about 170 as two VWCTs per village) their effectiveness is very much doubted as no O&M system is in place as yet. All training activities in the

remaining project period should be geared towards the establishment and support of such an O&M delivery system. This would include continuation of training of VWCTs, but also starting up training for handpump mechanics (not required for the NIRA 85 handpump technology), for district technicians in-charge of O&M, for district spare-parts storekeepers, etc. The continuing training of village water committee staff on skills for their roles and tasks is also needed.

Among the activities undertaken by the training adviser were the preparation of a manpower inventory for MAJI departments at regional and district level in both regions. To arrive at a long-term commitment of MAJI staff a proper 'management manpower planning' was made. The training adviser correctly concluded that too many technicians were posted at the RWE's level instead of at the decentralized district level for implementation. However, the training adviser did not make recommendations for reviewing the manning schedule of the MAJI regional and district offices.

The comprehensive training programme, made by the training adviser, would be directed to the weak areas of the project as well as to chances for academic advancement. The real requirements in support of the actual water supply activities in the regions and districts were insufficiently used as starting points for manning and training needs identification.

As the organizational environment is changing, dialogues with villagers have to be continued. For more than 20 years, water was provided free of charge, water supply facilities were "donated" to the villages, and the maintenance responsibilities laid with regional and district MAJI offices. Now cost-sharing in operation and maintenance is aimed at, village contributions for facilities are required, and villages and users get the responsibility over their own systems (handpumps, standposts, small piped systems). This new policy demands for information, orientation and discussion on community-based and community-managed water supply systems, and on the partnership between the different actors, i.e. the users, the village, the VWCs, and district and regional departments (MAJI, AFYA, MAENDELEO). The potential role of the private sector is to be included as well. This re-orientation is to be addressed to all these groups and also to the ward, divisional, district and regional leaders. This "training" for community groups is dealt with in detail in chapter 3.2.

The instrumental role of the Community Participation Advisers in this process of re-orientation is big. The Mission therefore recommends that they continue with their services up to the end of 1994. Their job description should be clearly defined according to the changing conditions, new defined roles and responsibilities and corresponding to the project goals in terms of sustainability.

For the remainder of the project period (1992-1994) the training adviser proposed a large number of courses including continuation of the Village Well Caretakers courses, but also new courses on technical subjects mainly for technical personnel from district and regional MAJI offices (see appendix 7). With the knowledge that donor-funds will be partly or completely cut and the limitation of funds available from MAJI and regional institutions, these plans are over-ambitious. Furthermore, it is very much doubted whether these proposed courses are really the priority areas to support the development of sustainable water supply systems. However, the proposed course for scheme attendants is very relevant as a number of pumped water systems has been rehabilitated but lacks well-trained attendants. The manuals for the different engine-driven pumps have been all translated into Kiswahili, but none are used. It remained unclear for the mission why utilization of manuals was not pursued.

Two "Training of Trainers" (TOT) courses, were held for leaders from regional, districts, divisions and wards, who will be trainers themselves (see also chapter 3.2). This trained group will be involved in future courses. Together with skilled staff from MAJI, AFYA and MAENDELEO they will form the cadre which would be capable to continue training for village leaders and village well caretakers, etc.. The bottleneck for future continuation may be the funding of the courses as more than 50% of the required course funds are spent on participants' allowances. In the present set-up most funds for training come from donor resources. The present system whereby the agency pays allowances etc. to villagers attending courses which are beneficial to the development of villagers' capacities could be discussed and revised. If villagers or communities recognize and appreciate the benefits of the courses, they may very be willing to pay for their participation.

In general the regional and district MAJI offices have technically well-skilled personnel. Upgrading of skills can be done through existing MAJI training channels i.e. craftsmen training courses at the Water Resources Institute.

The potential of using skills and knowledge available among district and regional staff for on-the-job training of other staff is very much under-utilized. MAJI could look into methodologies to promote and structure on-the-job training for increased technical capacities. The Rwegarulila Water Resources Institute may also be very instrumental in both the methodology development and the required information/documentation support.

For training of higher staff limited funds are available at regional and ministerial level. Managerial and organizational capacities of this staff group need to be improved. However, applying the developed organizational and managerial knowledge and skills may be rather difficult in the present MAJI

organizational environment which is not very enabling and encouraging for improved organization and management.

In view of the need for improvement of functioning of regional and district staff, the Mission suggests that the Ministry of Water could critically review the manning schedules of the mentioned MAJI offices. The Mission observed unsustainable over-staffing of the MAJI offices. Many staff showed low motivation because of the professional under-utilization and low remuneration. As activities in implementation of water supply systems in the two regions will definitely be reduced as less donor funds will become available, reduction in staff numbers and/or sharing (pooling) of specialized staff among regions and districts should be seriously considered. This rationalization and optimization of staff would open doors for more cost-efficient and cost-effective utilization of available capacities, for improved remuneration and better use of general resources such as office, transport and equipment. Some MAJI staff could be specifically trained on more community-based approaches and consumer relations issues.

In view of the finding that the water technicians present in the regions outnumber the required staffing, the Ministry of Water could consider manpower need assessment for this cadre of water technicians and also a training need assessment for the staff within MAJI. Based on these assessments, the targets and objectives of the Water Resources Institute - presently training mainly water technicians - could be considered for revision.

In defining the strategy for introducing new approaches such as roles and responsibilities to communities, the project could consider to organize visits of new project villages to successful villages, and return-visits by successful villages to starting-up communities. Experience from other countries has shown that villagers can motivate each other very well as they also understand - better than district staff - the constraints and problems their country-men face.

3.5 PHYSICAL IMPROVEMENTS TO INCREASE WATER SUPPLY

The immediate objectives of this sub-project are:

- increase of water supply by rehabilitation of existing no-operating water supplies
- increase of water supply by construction of new water supplies
- provision of basic hydrometeorological, hydrogeological and geophysical data for planning and design of water supplies.

The FINNIDA project has put the main emphasis on point sources water supplies and its management. This is clearly reflected in the achievements for this sub-project.

The stoppage of and delay in the material supply obviously adversely affected the immediate objectives of this sub-project, particularly in Mtwara region.

3.5.1. Achievements

Data on physical achievements were hard to obtain in Mtwara Region, probably because the absence of a monitoring system, and the absence of an operational management information system, and poor communication between the implementation level, the DWE's offices and the RWE's office. The available data were presented in different formats, with variation in parameters, making compilation and drawing of quantitative conclusions impossible.

According to information from the RWE's office in Mtwara, the information on number of handpump units in stock gathered by the Phase V evaluation mission in the beginning of 1990 were not correct. The RWE's office claimed that this stock was fully used as the exercise to replace old pumps (NIRA 76) by new NIRA 85 was speeded up in 1990. This was doubted by FINNIDA; which was the beginning of a period of a disturbed relation between MAJI Mtwara and donor. Data on handpump units supplied, in stock and delivered were available for the period 31 December 1989 to 5 May 1991 (partly Phase v and Phase VI) (see Appendix 8); at the time of the mission no information was available for the entire period in Phase VI.

In 1991 no handpumps units were supplied, while in 1992 (up to October) only 200 units became available through FINNIDA support: 100 for each region. According to information from FINNWATER, in December 1992 each region received 200 handpump units and each district one spare part set.

Mtwara region

Of the 100 handpump units in Mtwara, 50 were distributed to districts for rehabilitation and new installation. The criteria for determining which districts and villages were to get handpumps were not very clear. An overview of locations where new handpumps were installed, was not readily available. It must be noted that local and international NGOs also supported the construction and rehabilitation of shallow wells in Mtwara region. In this region work continued on the rehabilitation of three piped water supplies carried over from phase V.

These schemes are in Masasi District, Rulindi village (large gravity scheme) and in Mtwara Rural District, Mnwawale and Kitere villages, both pumped schemes. The rehabilitation of three more piped schemes in Masasi District were scheduled but since no materials were supplied as yet, work has not been started.

No compiled information could be obtained on the percentage of (partly) functioning shallow wells in Mtwara Region. Masasi District had more than 70% of the about 600 shallow wells not functioning. For piped water supplies this percentage is around 80% in Mtwara region.

The "follow-up safaris", started under the FINNIDA-supported project, were last done in 1990. In 1991 and 1992 no "follow-up safaris" were done as no transport and funds were available for this activity. Monitoring was neither done by the DWE's offices for the same reasons. During this phase, scarce reports from the villages were the only information sources on functioning of village point water sources.

Lindi Region

According to RWE's data, which could not be counter-checked by the mission, 51 new shallow wells were constructed and 418 wells rehabilitated in the period January 1991 to July 1992. Furthermore, 2 new single-village piped schemes were constructed and six single-village piped schemes rehabilitated.

The percentage of fully and partly functioning schemes in Lindi region is around 27, while this percentage for shallow wells was 74 according to data from the RWE's office. The updated status of shallow wells in Lindi is attached (appendix 9).

Information on the water service coverage in Lindi region was compiled by the RWE's office. For rural areas 46% of the population has access to piped water and handpump supply, while 54% has no access to these types of water supplies. This is due to the fact that installed systems do not function or no improved services are present. 50% of the urban population has access to reasonably functioning² systems, while 30% uses poorly functioning systems and 20% has no access to a functioning system. These data are presented in tabulated form in appendix 9.

It is obvious that to sustain the present coverage and the new construction and rehabilitation of water supply systems, a reliable O&M system is a basic requirement. (see also chapter 3.3)

The planned revision and supplementation of hydrometeorological, hydrogeological and geophysical data for planning and design of water supplies was partly implemented.

². Reasonably functioning means in this case that the system works 60-100% time of the year, while poorly functioning means working for 0-60% time of the year.

Because of the drought conditions over the last years which affected these two regions, a high percentage of shallow wells runs dry towards the end of the dry season. Proper surveying and siting could reduce the chances of dry wells. Shallow well surveying in the rainy season which may result in the unreliable shallow well sites, should be avoided.

3.5.2. Rainwater Harvesting

Many areas in the two regions face serious water supply problems as groundwater or surface water is hardly available or only available for a short period of the year, or reliable sources are at a long distance from the homesteads. Rainwater harvesting becomes then a very important alternative and/or supplementary method of water supply. The Mission found that in villages at the Makonde Plateau without or with partly functioning piped water supply almost all households have at least one locally constructed ground-reservoir to store the surface run-off collected during rains. Most of these private tanks were found to be dry. This is probably a result of poor construction techniques which lead to cracks in the cement-mortar lining and subsequent leakage of stored water.

Several ESAs including UNICEF, CDTF and missionaries, have supported the development and construction of rainwater harvesting systems in many districts in the regions. Technology and management of these systems could be improved.

A short study was done on rainwater harvesting by MAJI and the FINNWATER water supply adviser, but the result was according to the Management Adviser not satisfactory to justify field-testing of findings.

However, the Mission concludes that in view of the identified potential and need for rainwater harvesting as a supplementary water source in many areas in the two regions, there is need for rainwater harvesting system development.

The mission therefore recommends that the Tanzanian Government and/or local NGOs further develop, pilot test and disseminate information and technology of affordable and reliable rainwater harvesting systems. Such technology and system development should also include optimization of design, organization and management of the systems. The present experiences in the region and in other African countries should be considered in these activities, e.g. the support and the engineering techniques introduced in Songomnara village - Kilwa district.

Potential areas in the two regions include Rondo and Makonde Plateaus and some parts of Liwale district.

3.5.3. Conclusion

The Mission concludes that rehabilitation of point and piped water supplies should continue, using any possible financial support. In case of piped water supplies rehabilitation,

feasibility of point water sources development and of management capacities should be assessed prior to deciding on rehabilitation.

Promotion of community involvement and community management of water systems can only be successful if it responds to clearly expressed and felt need for improvement. On the other hand community management - including O&M - of water systems can only be successful if the systems are properly constructed/rehabilitated and well-functioning. Therefore rehabilitation should be based on hydrological and/or hydro-geological surveys, sustainability considerations and discussion with communities on their technology and service level preference. Obviously the physical improvement should be done in good workmanship and "commissioned" to the community after quality inspection which lays the basis for a good operation and maintenance of the systems.

3.6 ENVIRONMENTAL ISSUES

In the Project Document no objectives or activities were related to environmental issues. However, FINNIDA included in the TOR several points to be included in the Review Mission (see also appendix 2).

3.6.1 Major environmental problems

Soil erosion and land degradation have been found to be the major environmental problems in both regions. These problems became even more serious as in 1990 the two regions were severely affected by floods which heavily eroded the lowlands and the plateau slopes. Although it is estimated that the forest cover of the project area is 80%, deforestation resulting in loss of vegetation cover has been observed to be increasing. The main causes are shifting cultivation, bush fires, fuel wood requirements, and expansion of inhabited area. The expansion of timber industry in both regions especially on the Rondo plateau has also been found to be a threat to the area. The plateau zone has been found to be severely affected by erosion - gullies and landslides - because of the high sensitivity of the soil to erosion especially when it holds water without vegetation or forest cover. In Newala district the population increase when equated with the available forests for firewood purposes, gives a bad picture of resource utilization given in mind that there are few afforestation programmes and agro-forestry practices. Uncontrolled livestock grazing practice has been found to have little impact in both regions because of the few livestock numbers in the area. Most of the urban and the rural communities in both regions depend on charcoal and firewood respectively as their source of energy, and since these energy sources are all taken from the rural areas, it is evident that the rural forests and especially the catchment areas are in great danger.

3.6.2. Problems related to water sources

During the mission's visit, several water sources in both regions were found to face a problem of drying up. Apart from the current drought affecting the area, there are also some human influences affecting the reliability of water sources. Farming activities, livestock grazing, fires and tree falling are among the human destructive activities being done within the vicinity of the water sources. If the aim to secure reliable and adequate water supply is pursued, strategies for controlling these activities are needed. It was found during the visit that almost every village has special protection measures against these destructive activities around the water sources but the enforcement of those measures was found in most villages to be a problem. Because of conflicting interests on land use in the villages, these measures can only be effective if the awareness of the people on these important issues will be raised through community participation. Lulindi and Malanje villages in Masasi and Mtwara Rural districts are good examples of how the community could be organized in protecting the valuable water sources.

3.6.3. Pollution and environmental sanitation

Lindi and Mtwara regions have relatively very few industries. These are cashew-nut factories, sisal processing plant, Coca Cola plant and a small number of garages. This brings the advantage of having less industrial pollution in these two regions. However, effluent from these industries needs to be treated before being discharged into the environment. Most of these industries are situated in the hill slopes and in valleys where also most scarce water resources are located. Discharging without proper treatment may result in pollution of these scarce water sources in the adjacent valleys and the general environment.

The Government of Tanzania should investigate the potential of industrial pollution in these regions and develop policies to safeguard the scarce and vital drinking water resources in these semi-arid areas.

A reliable minimum environmental monitoring system should be established in collaboration with the responsible regional authorities and the industries concerned.

More than the industrial pollution, the bacteriological contamination of the water sources was expected to be a bigger problem. Bacteriological contamination of water sources may be caused by pit latrines and indiscriminate defaecation. This may generally not be a problem in this dry area, but in the rainy season it may give rise to high contamination levels of drinking water sources.

The Mission suggests that issues such as human excreta disposal, pollution risks for water sources, participatory sanitary surveys, home-based water treatment and storage, are considered for inclusion in the training of community cadres and members.

3.6.4 Environmental Monitoring

Although environmental monitoring was not mentioned in the project document for Phase VI, personnel from MAJI and Natural Resources have been carrying out certain aspects of environmental monitoring. The regional forestry departments have been monitoring forests and catchments areas while MAJI (zonal water laboratory) did some water quality monitoring in both regions. However, due to budgetary constraints the frequency of this monitoring was reportedly low.

The Mission therefore suggests to the Tanzania government to consider multi-sectoral monitoring involving regional and national authorities starting with minimum procedures to make the exercise realistic and sustainable.

3.7 FINANCIAL ISSUES

3.7.1. Local Contributions

The project aimed in this Phase to get a larger share of the costs involved in the implementation of project activities, covered by the Government of Tanzania and the communities. This aim was legitimate and justifiable as this Phase is the last one with external financial and manpower support from FINNIDA. To come to sustainable approaches and systems, responsibilities had to be shifted from the donor to the Tanzanian side.

After nearly 20 years of donor support with a low level of integration of the project into the local organizational structures (both MAJI region districts, and communities), it was clear that this was going to be a difficult exercise.

The principle starting points were (i) the gradual increase of share in local contribution towards costs for supply of materials and equipment, and for training and community involvement activities, and (ii) the cost-sharing of operational costs for all types of water supply systems with water consumers/communities.

The local contribution was indicated to start in 1992 with 10% for material support, with a yearly increase of 10%, and for training/community participation to start in 1993 with 20%, with a yearly increase of 20%. Costs for allowances for training courses and participation in seminars were to be fully covered by the Government of Tanzania.

The principle and the mechanisms of the local contribution were apparently not fully discussed and agreed upon with the

government at national level as well as the project partners in Mtwara and Lindi. In the beginning of 1992 several meetings were organized to clarify certain related issues and to get the misconceptions resolved. The ordering of materials and equipment was thus delayed for more than six months.

The agreement that the GoT had to pay for course allowances and seminar participation had to some extent a delaying effect on courses. However, the Mission agrees with the principle of country contribution which would lead to a more sustainable system.

3.7.2 Flow of funds

For the first year of this Phase (1991) only 72.5% of the available budget was utilized by the project, resulting in a positive balance of FIM 2.1 million. Of the available FIM 3.3 million for material support, only 47.7% was utilized. This was obviously due to the stoppage on supply of materials to Mtwara Region.

During the second year (up to July 1992), 22.9% of the total available annual budget had been spent. All budget items had expenditure levels below 50%; in particular the "material support" vote had utilized only 8.9% of the budget. Again this was due to the stoppage of material supply due to discussions on "local contribution", which affected both regions now. "Training and Community Participation" had utilized 15.9% only.

As materials have been ordered, the budget utilization percentages will be higher at the end of calendar year 1992.

According to FINNWATER information (January 1993) 93% of the total available annual budget had been spent; the "material support" vote had utilized 145%, "Training and community participation" vote 58% and "Technical assistance" 75%. These figures have not been counterchecked or discussed with the project.

3.7.3. Conclusions

The Mission has already indicated that continuation of the community participation activities is crucial for reaching the state of sustainable systems. It is obvious that community participation and management can only be addressed and developed in the communities if water supply systems are reliable and in good working condition. Rehabilitation of water supply systems is therefore envisaged to be a continuing activity supporting the community participation issues.

For the last two years, this rehabilitation has had a very low pace in Mtwara region, because of the material supply stoppage, and the last year also for Lindi. Therefore, the Mission suggests FINNIDA to make the non-utilized budget allocations for "material supply" for 1991 and 1992 available

to the project for procurement of items required for the rehabilitation, particularly the shallow wells, and gravity piped supplies presently under rehabilitation.

4. MAKONDE PLATEAU WATER SUPPLY SYSTEMS

4.1. INTRODUCTION

The Makonde Plateau Water Supply System is a large and therefore complicated system. The project correctly gave this system special attention to arrive at a sustainable system.

The Makonde Plateau Water Supply System (MPWSS) is a national scheme which is managed, operated and financed by the Ministry of Water, Energy and Minerals (MAJI) headquarters. It comprises six piped water schemes serving about 300,000 people. The scheme covers parts of Newala and Mtwara Rural districts. The target population lives at the Makonde Plateau, 400-800 m above sea level, with an area of approximately 3500 square km. Water is only found at explorable depth in the lower areas, the valleys. From the valleys the water is pumped to the communities on the plateau. The groundwater level in this plateau is about 250-300 metres below ground level. This depth of the groundwater makes utilization for point water sources impossible. Surface water sources are not available on the plateau. Rainwater harvesting is particularly applied in those locations where people do not get any piped water supply. In some villages, the scheme is completely or partly broken down while in others a piped system was never constructed.

The Makonde Plateau Water Supply existed already before independence (since 1957) and was operated by the Makonde Corporation as a water utility board. Consumers had to pay per bucket of water collected from kiosks. After independence, the corporation was nationalized and entrusted to the Regional Water Engineer's office. Water was seen as a basic need and was provided free of charge to the people. Later the District Council got responsibility for this water supply system. The scheme run into difficulties due to financial constraints.

The present water supply system consists of six pumped piped water supplies of which one is out of order because it was effected by the 1990-floods. The present supply systems are only partly functioning due to different reasons including lack of funds for operation, breakdown of generators and pumps, delayed or no repairs due to lack of spares, poor distribution network.

The Mission also learnt and was informed through reports that the GoT increasingly faces difficulties in operating and maintaining the system. Due to lack of finances, poor O&M and work discipline, the system runs at about 50% of its capacity, resulting in intermittent supply to the consumers. Presently most expenditures in the O&M of the schemes are used for consumables such as fuel and oil. Major repairs, overhauls, replacement etc. are only done to the minimum level.

The FINNIDA-supported project gave over the last 15 years considerable support to rehabilitate the pumping stations and

the distribution network. For the O&M of the schemes, technical assistance and spare parts were provided through the project. The Government of Tanzania is not able to fully support the running of the schemes. In view of these facts, a two-phased study was proposed on the re-organization of the MPWSS, focusing on the institutional, managerial and financial aspects of the new organization.

The Mission was informed that presently electrification of the pumping systems takes place. This electrification will increase the reliability of the water supply because it will no longer depend on the ferrying of diesel by truck.

4.2 PHASE I STUDY

Phase I study aimed at a broad overview of administrative and financial issues in view of proposals for future management and financing. The study was conducted in the second half of 1991 by the Institute of Resource Assessment of the University of Dar es Salaam. The field and desk studies resulted in a comprehensive report¹ of high quality. The study found that the present operation and maintenance (O&M) costs of about TAS 170 million per year were beyond the government's financial capacity. The district does not have sufficient funds to raise awareness on villagers' responsibilities in O&M. Active community participation was viewed as a prerequisite for sustainability of water services. The study team concluded that proper financing can be realized if a proper water tariff was established.

Based on costs for 1990/91 an indicative water tariff of TAS 1.85 per bucket was calculated to be sufficient to cover total water production costs (O&M, capital rehabilitation, administrative and collection costs), excluding capital costs as interest and depreciation. It was recommended to establish a water tariff per bucket of TAS 2.00 (price level 1991) without subsidy but the GoT taking care of spare parts supply and water capital investments; or TAS 1.00 per bucket and the balance costs to be aided by the GoT. This last option would according to the report not result in sustainable water services if the government capacities continue to decline. Local government was felt unable to raise enough funds to significantly contribute to the costs. Flat water rates are not advisable as service levels, income and water consumption vary.

Based on discussions with the target group and analysis, the study recommended the water supply managed by a water board.

¹. Chaligha, A., Mogella, C., and Kiwasila, H. (1991). Study on the institutional and financing arrangements of Makonde Plateau Water Supply. Institute of Resource Assessment, University of Dar es Salaam, Tanzania

Other options including central government, district council and co-operatives were found not very suitable bodies for management of this type of water supply systems.

Community participation was found needing strengthening to make all consumers aware of their responsibilities regarding the water services.

The study observed a great willingness to pay for water services that are reliable and easily accessible. Kiosks were preferred with a payment per bucket. This would reduce the potential problems with Village Water Funds and collection of money.

4.3 SEMINAR ON THE RE-ORGANIZATION OF THE MAKONDE PLATEAU WATER SUPPLY

Phase I Study was completed with a National Seminar called "Re-organization of the Makonde Plateau Water Supply", organized in Dar es Salaam from 8 to 10 April 1992 by the Ministry of Water, Energy and Minerals in collaboration with and sponsored by FINNIDA.

The general aim of the seminar was to discuss with a multi-disciplinary group of experts (engineers, planners, policy makers) the conditions, feasibility and ways to establishing a new separate body for the management of Makonde Plateau Water Supply Scheme. The objective was further to conclude on issues as government commitment to reorganize, guidelines on revenue collection and cost-sharing, administrative arrangements, and definition on organizational, functional and financial principles. Furthermore, the seminar was aimed at arriving at arrangements, transition steps and a schedule for legislature, transition procedure and period, and nomination of a task force for action planning.

The final seminar resolutions are attached. The major seminar recommendations are:

- to establish a separate autonomous body with legal entity to run Makonde Water supply;
- to establish a tariff structure aiming at full cost recovery (capital and recurrent);
- to sell water per bucket through a kiosk system;
- to emphasize community participation aspects;
- to establish a cost-effective operational system, and a cost-efficient organization;

A Plan of Action was agreed indicating that the establishment of an autonomous institution for running the Makonde Plateau Water Supply Scheme would commence in July 1993.

The Mission has the opinion that both the Phase I Study report of the IRA, and the papers presented and discussions held during this Seminar very much contributed to a better

understanding of the problem and the potential for different institutional and financial options.

4.4 PHASE II STUDY

The Phase II Study will focus on institutional and administrative arrangements, organizational structure and manning schedules, financial arrangements including cost recovery structures, and the legislative issues for the establishment of the MPWSS.

The Terms of Reference for the Phase II Study (dated 30.09.92) are attached (appendix 10).

The Mission finds the TORs for the Phase II Study comprehensive. As the establishment of the MPWSS as an autonomous body is a new development in Tanzania, there is need to give more attention to the legislative aspects in the present changing political environment in Tanzania. The Mission feels that in the present political situation there is still some ambivalence on changes and not always very favourable to the establishment of the proposed institutional and financial system; therefore more attention should be paid to this area.

Issues such as community education, study of appropriate technologies such as rainwater harvesting and environmental sanitation are seen as important but less relevant in the context of this Study and definitely not as aspects for the Makonde Plateau Water Supply Scheme. Other departments, for instance AFYA and MAENDELEO, should take the development and implementation of these issues up.

The team feels that insufficient attention has been given to the need for rehabilitation and construction of new distribution networks, standposts, kiosks, house connections. Another important area is the community management systems to be established, and the needed capacity development in the villages.

Seen the TOR of Phase II Study, the Mission has the confidence that this phase will result in a good framework for the establishment of an autonomous organizational body to operate the Makonde Plateau Water Supply Scheme. The Government of Tanzania has then to make decision on follow-up actions of these studies, conclusions and recommendations.

In view of the changing political climate and the Water Policy, the Mission has confidence that the proposed institutional structure (Water Board) and the suggested cost-sharing principle for the MPWSS will be acceptable and viable. The team was informed that in the regions, several public organizations had been established on an autonomous funding basis, e.g. the Newala Development Fund and the Masasi

Educational Fund. These developments are indicative for a change into a more self-initiated development direction.

The Mission noted some political resistance among regional authorities to charge rural people for water based on full cost recovery. This resistance may have been partly caused by the fact that rural households will then pay much more (TAS 2-5/bucket of 20 litres) than urban households, who pay a flat rate of TAS 200/month per house connection. In view of this imbalance in tariff versus service level and ability to pay, the Mission suggest that the Government of Tanzania reviews the policy on urban water tariff setting.

The MPWSS will be the first scheme in Tanzania which will be run under such autonomy. It is therefore recommended that the organization and its functioning is closely monitored. As the establishment of this Water Board should be seen as an experiment, room for learning and adjustment should be allowed. FINNIDA may consider to support the institutional "development phase" of the MPWSS through financing of expertise support and backstopping.

The Embassy of Finland raised the possibility to have some FINNIDA inputs in the development of the MPWSS after the Study Phase II, through short-term consultancies by FINNIDA advisers.

5. RISK ANALYSIS IF FUNDING STOPS

The mission was asked to assess the possible implications if the FINNIDA support would significantly be reduced or if the project would be terminated as foreseen by the beginning of 1993.

Most staff from regions and districts, and community members received the above information as very unfortunate news, although many expressed their gratefulness on the generous FINNIDA support to the water sector development in both regions during the period 1972-1992.

As the last project phase was planned to cover the period from the beginning of 1991 to the end of 1994, termination in the beginning of 1993 would mean a project period reduction of nearly 50%. It is obvious that such period reduction will have serious implications for the realization of the objectives of this ongoing Phase VI.

The risk analysis was to cover the six areas of the sub-projects including management and institution building.

Management and Institution building

The management capacities within the MAJI offices have not been sufficiently developed as yet. However, because of the project re-direction made by FINNIDA, the project has not focused on this aspect during the last two years and did not plan to do so in the remaining project period.

The mission feels that the present regional and district MAJI offices are capable to manage the remaining water programmes in case FINNIDA terminates its financial support. The involvement of other district departments in the water programme could be strengthened, in the framework of emphasised decentralization. Nevertheless, the mission concluded that there is need for improvement of organizational and managerial capacities in the MAJI offices when the overall MAJI organizational structure has become more enabling for such improvements (see section 3.4).

At village level, management and institution building activities have been started but a sustainable stage has not been reached as yet. Only part of the villages have received support on this capacity development aspect. Termination of started activities here has serious risks for short and long term sustainability of village water supply systems. These risks will also be covered in the section on community involvement and O&M. A major problem is that the roles and responsibilities of the different involved levels are not or not clearly defined as yet. These involved levels refer to users, community, district, region, national level and private sector.

Community Participation and Cost-sharing

The risks of project termination for the sustainability of the village water schemes are very much related to the organization and management structures at village level, capacities developed at village level, the motivation of the users and committees etc. Chapter 3.2 deals in detail with the achievements and gaps of this sub-project.

At none of the project levels, the community participation concept has been sufficiently developed, integrated and practised. The CPAs have made some progress in developing, integrating and practising the concepts. Although in many villages Water Committees have been formed, only about 20% of these WVCs received training. The roles and responsibilities of users, communities, district, region, national level and private sector in partnership with each other are not yet clear. There is a role for the national departments to further develop strategies, models and guidelines. Nevertheless, the supportive footing and structures at regional level and below should be strongly established. Furthermore, the attitude of actors must be sufficiently determined towards community management of water supply systems.

The mission has the opinion that termination of the project would imply the too early end of a started movement towards change of attitude among actors, definition of roles and responsibilities of actors, and development of capacities of communities to enable the management of their water systems. The termination of the project may bear the risk that the achievements made so far in this sub-project may diminish because of the present uncompleted, so weak, foundation.

Continuation of the community participation activities as pelt out in 3.2 is therefore strongly recommended.

O&M

The proper functioning and reliability of the village water supply system is needed to get full appreciation of the improved service by the users. Appreciation is an important element for effective management which very much contributes to sustainability of the system. Proper functioning can only be ensured if the operation of the facility is well done and the required preventive and corrective maintenance is carried out at the right moment. Therefore, people at village level are to be trained for O&M tasks, spare parts and tools must be available for the village well caretakers, district and/or private sector must take up their roles for the major repairs, etc.

Effective O&M comprises a chain of activities and responsibilities. One missing link will break the entire chain and so jeopardizes the effective O&M and the sustainability of the water supply system.

The mission found that still a number of "links of the chain" are missing or are still weak. In the time frame of the project, it will not be possible to complete the O&M task. But also here the risk exists that if this component does not get the boost through continuation for a couple of years, that many achievements are lost. In practical terms this means further breakdowns of the point water supply systems, and reduction in coverage of improved water supplies.

The priorities on O&M to be continued or to be started up are:

- training of village well caretakers;
- training of pumped scheme attendants;
- provision (against payment) of required tools for village well caretakers;
- establishment of handpump spare part supply system, including revolving fund and spare part stores at district level;
- development of support structures for O&M at district and regional level.

Capacity development and training

Training is the cornerstone of development. In the previous sections the risks of termination of the project were very much focused on the community level. In terms of training this means that training has to be focused on the community level supportive to strengthening the community participation, community management and the O&M.

In practical terms this means:

- training of village well caretakers (presently about 20% of all villages with handpump systems have trained VWCTs);
- training of village leaders and VWCs (presently about 20% of all VWCs have been trained);
- training of trainers at district level for continuation training at community level.

Physical Implementation of Water Supply Systems

The mission stresses the importance of the community process to reach sustainability of water supply systems. The present situation in the two regions is that not yet all communities with functioning systems have been included in the community process. The mission has therefore the opinion that physical implementation of new water supply systems needs less emphasis for the time-being.

An example is the Nanyamba engine-driven piped water supply system (Mtwara region) presently under rehabilitation. The focus of the rehabilitation is very much on technical aspects (borehole, pump). Management of the scheme including the role of the nine villages connected, the financial management, the O&M arrangements, the rehabilitation of the distribution network and the standposts are very much overlooked by the district and regional MAJI offices.

Phasing out of donor support has always strong effects on the level of activities of the departments receiving support. However, this would not mean that all that has developed comes to a stand-still. Although, funds for implementation may not become available in the same magnitude as before, national, regional and district funds may be supplemented by funds from ESAs including NGOs and missionaries. Furthermore, more district support could be given to support community or individual initiatives to improve village water supply conditions. Such district support could include training of local masons, appropriate technology transfer to communities, and information and training to key villagers on community process for problem identification and solution finding.

Makonde Plateau Water Supply Systems

FINNIDA has allocated funds for the Phase II Study on the Makonde Plateau Water Supply Systems (MPWSS). This study will start towards to end of 1992. FINNIDA also indicated the possibility that their advisers may give inputs in the further development of the MPWSS in the coming years using own funds.

6. CONCLUSIONS AND RECOMMENDATIONS

6.1 CONCLUSIONS

6.1.1 General

The progress or achievements of the project can not be measured against the objectives of the project document because the FINNIDA-supported project redefined its directions in the beginning of the project. The project became narrower in direction: i.e. support to (i) management of community point water sources, and to (ii) the establishment of Makonde Plateau Water Supply Systems.

The mission noticed progress in the development and establishment of a community-oriented approach in the project areas. In a number of villages, cadres have been oriented and trained to take up roles and responsibilities in community management of their water supply systems. However, the percentage of villages with trained cadres is still small. Furthermore, the sustainability of the village water supply systems remains weak as in the supposed partnership relation between community and district/region, the support roles and responsibilities are not yet defined, and the district/region is not yet able to perform their support tasks.

Termination of the activities related to community participation, training and O&M will definitely jeopardize the achievements reached on developments towards sustainability of the community management and on the physical water supplies.

6.1.2 Project Management and Institution Building

1. In Mtwara region the project implementation in 1991 and 1992 was much influenced by the material supply ban and the discussions on the local contribution for material costs.
2. The parallel organization of the project up to Phase IV, very much influenced the integration process in the Tanzanian institutions started in Phase V. The integration is nearly complete, although the level of project activities is low compared to previous phases.
3. The number of FINNWATER advisers stationed in the regions negatively influenced the institution and capacity building in the MAJI offices.
4. The role of the local FINNWATER consultants, community participation and training advisers, is more implementation-oriented than advisory, which indicates the stage of the development and integration of these project components.

6.1.3 Community Involvement and Cost-sharing

1. The Water Policy has given strong impulse on the development of the community participation and cost-sharing principle introduced in the project.
2. Community participation has been much pursued during the last phase. It is mainly approached through village education and transfer of information, and less seen as an element of partnership between supporters of village development and villagers.
3. The roles of the community in managing the water supply systems is not fully discussed, agreed and facilitated as yet.
4. Roles of the different levels in the community process, i.e. community, district, region and national level, have not been clearly defined; this makes the development towards sustainable village water systems uncertain.
5. The scarcity of water in many locations in both regions definitely contributes to the willingness-to-pay for water and the general acceptance of the cost-sharing principle.
6. The late introduction of community participation in the project made the departmental involvement and commitment too weak to ensure continuation of community participation activities at the same level after project termination.

6.1.4 Operation and Maintenance

1. Village well caretakers (for handpumps) have been trained in a substantial number of villages, but many more are still to be covered.
2. The effectiveness of the VWCTs and the sustainability of the village water supply systems is doubted as the villages miss basic tools, spare parts are not available, and district/regional support is not structured and defined.
3. The costs for O&M of different water supply systems is not known; this is an important element in the cost-sharing discussion with the community.

6.1.5 Training and Manpower Development

The project exclusively focused its training at village level cadres, and to some extent at the training of trainers for village cadres, although the latter activity was not strong.

6.1.6 Physical Improvement to Increase Water Supply

1. The stoppage on supply of materials has had particularly for project activities in Mtwara Region serious implications for implementation of project activities and therefore for the project progress.
2. In view of the identified potential and need for rainwater harvesting as a supplementary water source in many areas in the two regions, there is need for rainwater harvesting system development.
3. Rehabilitation of point and piped water supplies should continue, using any possible financial support. In case of piped water supplies rehabilitation, feasibility of point water sources development and of management capacities should be assessed prior to deciding on rehabilitation.
4. Continuation of the community participation activities is crucial for reaching the state of sustainable systems. It is obvious that community participation and management can only be addressed and developed in the communities if water supply systems are reliable and in good working condition. Rehabilitation of water supply systems is therefore envisaged to be a continuing activity supporting the community participation issues.

6.1.7 Environmental issues

Soil erosion and land degradation are the major environmental problems in both regions, particularly on the plateaus and their slopes. Industrial activities do not cause major environmental problems as yet, although pollution of (drinking) water sources by industrial waste (water) disposal occurs.

The reliability of the scarce water resources is further degraded through the drought of last years, resulting in a substantial drop of the groundwater table. But also human activities - such as farming, livestock, fires, deforestation and industry - around water sources contributed to reduction in water quantity and quality.

The mission recommends that awareness among government staff and communities should be increased. Activities such as environmental monitoring, community-oriented training and community-based corrective environmental protection, including land use and land holding rights, should be considered.

6.1.8 Makonde Plateau Water Supply Systems (MPWSS)

FINNIDA very much assisted the Government of Tanzania in the development of a sustainable organizational structure for the MPWSS. FINNIDA assistance was given through financing studies and a national seminar which facilitated an important broad discussion and boosted the development of a autonomous body.

6.2 RECOMMENDATIONS

The most important recommendations are :

for FINNIDA:

- * to continue funding for the activities related to community involvement, O&M and training up to the end of the original project period (end of 1994); all as related to the strengthening the sustainability of the existing community water supplies; Required funds will be much smaller (estimated at 25% of original budget). An alternative option is to bring these project components in the "Regional Integrated Project Support" (RIPS) projects which are financially supported by FINNIDA.
- * to extend the contracts of the two Tanzanian community participation advisers up to the end of 1994; their role is crucial for the continuation of the community involvement activities and is instrumental in the process of approach re-orientation.
- * to facilitate exchange of ideas, experiences, problems and solutions with other similar rural water supply programmes in Tanzania and abroad, e.g. the KEFINCO Project in Kenya which has comparable objectives.

for MAJI national level:

- * to develop strategies and guidelines for the community management and support systems in line with the Water Policy; these could be used by regions and districts in adapting their strategies.
- * to consider studies on appropriate management models for different rural water supply systems including shallow wells, piped water schemes (single / multiple village) including gravity and pumped schemes.
- * to consider the establishment of a standard monitoring and management information system (MIS) for water supply activities.
- * to increase the use of information on experiences in community management, O&M systems, and system development, community participation, technologies, rainwater harvesting, etc. The establishment of basic

information/documentation units at regional level, district level would facilitate such use.

- * to facilitate and coordinate the exchange of experiences from donor- and other ESAs-supported programmes.
- * to develop and establish a national handpump project support system. (e.g. for O&M cost determination, spare part distribution)
- * to further develop, pilot test and disseminate information and technology of affordable and reliable rainwater harvesting systems, possibly in collaboration with ESAs and local NGOs.
- * to seriously consider the review of the manning establishments at regional and district level in order to come to sustainable and cost-effective staff levels.

for MAJI and other departments at regional and district level

- * to re-consider, in close collaboration with the other regional and district departments, its community approach from a pure resource-driven to a more demand-driven and community initiative supporting approach.
- * to enhance the collaboration between the district departments involved in community development to further develop community capacities in a coordinated way.
- * to determine the costs for O&M of different rural water supply systems.
- * to continue training of village cadres (including VWCs and VWCTs) relevant for the management of the water systems.
- * to define the required capacities and training for the MAJI "support tasks".

APPENDICES

1. Terms of Reference (dated 28.09.92)
2. Additional Terms of Reference on Environmental Issues (dated 05.10.92)
3. Itinerary of Midterm Review Mission
4. Persons met
5. Public Information Package
6. Factors influencing people's willingness to pay and manage water supplies
7. Summarized proposed training programme August 1992 to December 1994 (July 1992)
8. Use of Handpumps NIRA 85 for Mtwara Region (period 31.12.89 - 05.05.91)
9. Achievements and coverage in water supply in Lindi Region
10. Terms of Reference for Phase II Study, Makonde water supply re-organization

TERMS OF REFERENCE
(last version dated 28.09.92)

TERMS OF REFERENCE FOR THE MID-TERM REVIEW OF MTWARA-LINDI RURAL
WATER SUPPLY PROJECT PHASE VI IN TANZANIA

1. BACKGROUND

The Mtwara-Lindi Rural Water Supply Project was started as one of the first projects in the sector in 1972. After a long and thorough preparatory period during which a feasibility study and a Water Master Plan was prepared the actual implementation started in 1978. It was continued in four phases until the end of 1987 with the objective of constructing as many water supplies as possible and as soon as possible. It was observed, however, that more than one half of these supplies eventually fell out of order because of lack of funds and skills for proper management, operation and maintenance.

To improve sustainability of water supplies the construction oriented approach was abandoned and institution building emphasized in phase V in 1988 - 1990. However the evaluation of the phase revealed that the institution building was not completed by the end of the phase and much work was still needed to make the owner communities capable of managing their water supplies or the MAJI to manage the major piped schemes.

Still an other phase, of phasing out, integration and consolidating the improved management procedures, development of managerial and O&M skills as well as strong involvement of communities in the development of their water supplies so that they would be able to assume full responsibility for their continuous O&M, was needed.

The phase VI was commenced in the beginning of 1991. It soon became evident that the emphasis of the activities had to be directed to two main targets: The autonomization of the Makonde plateau water supply system and institution building for point source water supply management. The first one had to be organized in the new political environment as an unit which would be self reliant and the latter as community based but supported by MAJI-districts. All other activities had to serve the above two.

2. PURPOSE OF THE MID-TERM REVIEW

The main purpose of the mid-term review is to assess the stage of the Project Phase VI at the moment. Based on the findings and discussions with the Tanzanian authorities a recommendation for the remaining period of the Project shall be made. As there are pressures to interrupt the phase already early in the year 1993, prior to the originally set time, the mission shall carefully study the influence of such a deed. Also recommendations for the Tanzanian authorities how to continue the work in Mtwara and Lindi Regions in case the Project is terminated prior to the original schedule.

3. SCOPE OF THE WORK

The Mission shall make a thorough assessment of the objectives, plans, approach, strategies, inputs and outputs of the Project and compare them to the Project Document for the Phase VI of the Project. The outcome of this assessment shall be an professional estimation on what will be viable in case the Project is terminated after finalizing the Makonde Plateau Water Supply Study Phase II and the preparations for connecting the Kitangari scheme to the national power grid.

A special task is to review the impact of the changes in the society to the implementation of the plans to make the Makonde Water Supply System an autonomous/independent entity which will collect its operational funds from the consumers.

Based on the assessment the Mission shall make its recommendation on the concentration of the project activities to the most important tasks during the remaining period.

4. COMPOSITION OF THE MISSION

The Mission will be composed of the following persons:

Mr. Jo Suet, team leader, rural water supply specialist
 Ms. Evelien Kauninga, social scientist
 Mr. Bakobi, environmentalist

The Government of Tanzania is invited to nominate member(s) for the mission. FINNIDA would appreciate if the Tanzanian member(s) of the Mission could cover issues of management and administration of water supplies in Tanzania.

5. TIMETABLE AND REPORTING

The appraisal will take place in October 1992.

A draft report shall be submitted for comments to the relevant authorities not later than 30th of November, 1992.

6. AUTHORIZATION

Although the Mission is entitled to discuss with the authorities concerned any matters relevant to its assignment, it is not authorized to make any commitments on behalf of the Government of Finland.



Glen Lindholm
Director,
Division for Southern Africa

ADDITIONAL TERMS OF REFERENCE ON ENVIRONMENTAL ISSUES

(received 05.10.92)

Environmental impacts and issues which should be specifically checked:

- how has environmental monitoring been implemented
- pollution control measures related to the use of chemicals and machinery
- possibilities for improving and developing rainwater harvesting on Makonde Plateau and other critical areas
- to make recommendations for the Tanzanian authorities how to continue environmental monitoring

ITINERARY OF MIDTERM REVIEW MISSION

- Mon 05.10.92 departure from the Netherlands
- Tues 06.10.92 arrival in Dar es Salaam
meeting at Ministry of Water, Energy and Minerals
meeting at Embassy of Finland
meeting with UNICEF
meeting with SIDA
- Wed 07.10.92 flight to Mtwara
meeting with RDD Mtwara and heads of departments
meeting with RWE and section heads
- Thurs 08.10.92 meeting with DAD Mtwara Rural and heads of departments
visit to Maranja village
visit to Nanyamba water supply
- Fri 09.10.92 meeting with DAD Newala District and heads of departments
visit to Teachers' Training College, Kitambara
visit to Makonde Plateau Water Supply System, Kitangari Pumping Station
- Sat 10.10.92 meeting with individuals in RWE's office
team meeting
- Sun 11.10.92 meeting with Community Participation Adviser and Community Participation/Training i/c
team meeting
meeting with Management Adviser (FINNWATER)
- Mon 12.10.92 meeting with DAD Masasi District and representatives from involved departments
visit to Teachers' Training College Ndwika
visit to three villages connected to Lulindi Piped Water Supply System
travel to Lindi
- Tues 13.10.92 meeting at RDD Lindi and the departmental heads
meeting with RWE and the section heads
meeting with DAD Lindi Rural and departmental heads
visit to Mnazimoja village (piped water supply)
visit to Mtama village (handpumps)
- Wed 14.10.92 travel to Kiwawa in Kilwa District
visit to Kiwawa village
travel to Lindi and Mtwara
presentation of preliminary findings and conclusions

Thurs 15.10.92 flight to Dar es Salaam
debriefing at Embassy of Finland

Fri 16.10.92 departure for the Netherlands
arrival in the Netherlands

PERSONS METDar es Salaam

Mr. Heimo Laakkonen	Counsellor, Finnish Embassy
Mr. Suvanto	Secretary, Finnish Embassy
Mr. Sayi C.N.	Ass. Comm., MAJI Design Construction and Materials Testing
Mr. Lupimo S.N.	Head of Materials Testing Unit, MAJI
Mr. Sechu, L.M.	Ag. Head Design Unit, MAJI
Mr. Dauda Wurie	Project Officer WS&S, UNICEF
Mr. Lars Norvik	Programme Officer, Water and Health, SIDA

Mtwara Region

Mr. R.R. Kiragu	RDD - Mtwara Region
Mr. A.M. Ngillo	Laboratory - MAJI
Mr. A.C. Mwenambulo	DWE - Mtwara Rural District
Mr. J. Saavalainen	Management Adviser, FINNWATER
Mr. S.Y. Bushiri	C.P. Adviser, FINNWATER
Mr. L.M. Msaru	R.H.G., MAJI
Mr. A.R. Dag'aa	Admin/Finance/FINNWATER
Mr. E.M. Makaso	Drilling, MAJI
Mr. A.Mohamed	Supplies Officer, MAJI
Mr. A.Shayo	Design and Training, MAJI
Mr. C.M.W. Maheri	RWE

Mtwara Rural

Dr. Muti S.C.	Dist. Med. Officer - Mtwara
Mr. Lameck D. Kinyunyu	District Forest Officer
Mr. Kambo	DPLO
Mr. Kanihi	DED

Newala District

Mr. A. Mtenga	Ag. DED
Mr. Mageha	DED
Mr. Walidi Samaya	DWE
Mr. V. Lusobya	Ag. DPLO
Mr. Luheya Mwanga	D/C Chairman
Mr. Riti M.M.	Res. Engineer, Makonde Water Supply
Mr. Sumari NR.	Mech. Engineer, Makonde Water Supply

Masasi District

Mr. Gwassa	DWE
Mr. Z.N. Mburusi	DED Chairman District Water Committee
Mr. J.M. Tendeje	Chairman District Council
Ms. Matindiko	Health Asst. AFYA
Mr. J.L. Chenga	Community Development
Mr. Anthony Alendene	Water Technician
Mr. S.A.N. Nnunduma	Agric. & Livestock Develop.
Mr. S.N. Liwassa	D.W.E. Secretary
Mr. Mushiri H. Marumbue	DNRO
Mr. C.M. Munyuku	DO Masasi
Mr. Likanda	Natural Resource Dep.
Mr.A.H.M. Kabuje	Principal, Ndwiha Teacher's Training College

Lindi Region

Mr. R.A. Mrope	RDD
Mrs. Dolla Chekanae	CP Adviser, FINNWATER
Mr. Chaggaka J.A. Kalimbia	MAJI
Mr. J.F.A. Manjesa	RWE
Mr. Myambachia M.S.	For RCDO
Mr. M. Evarist	DWE Lindi Rural District
Mr. S.A. Mpinga	SOS II
Mr. C.J.A. Kalimbia	Design Engineer Maji
Mr. K.M. Mpanda	RHCT Lindi
Mr. R.W. Mwhabuki	Hydrologist Lindi
Mr. A. Lymo	Construction Engineer
Mr. Bakari Mbinge	Mechanical Engineer
Mr. A.Y.N. Shekaoneka	Technician Civil
Mr. C.R. Isowe	DWE Liware
Mr. Msuya	DED Lindi Rural

Kilwa District

Mr. M. Maquay	DWE
Mr. B. Nyenyembe	DPLO
Ms. A. Mbepo	UWT Chairperson
Mr. S. Njikwa	M.O.
Mr. Y. Ngao	A.D.F.O.
Mr. O. Kaluse	C.D.O.

Villagers, village government members and water committee members of:

- Marange Village	(Mtwara Rural)
- Nanyamba Village	(Mtwara Rural)
- Mlindi Village	(Masasi Rural)
- Mbuyuni Village	(Masasi Rural)
- Mnazimoja Village	(Lindi Rural)
- Mtama Village	(Lindi Rural)
- Kiwawa Village	(Kilwa Rural)

Staff and students of:

- Kitangari Teacher (Mewala District)
Training College
- Ndwika Teacher (Masasi District)
Training College

PUBLIC INFORMATION PACKAGE-brochure on procedures-

* Why do we want better water supply?

Potential benefits:

- water close by is convenient and reduces daily burden of women and children
- clean water is good for the health of the whole family
- more water for economic activities
- modern time facility

* How much does water cost?

Simple cost scenarios for shallow well (with and without pump), protected spring, borehole and piped water supplies. Financing examples; contributions per bucket, per month, per season.

* What services can MAYI offer?

Sort of assistance that can be given (technical; financial; training and community management support)

* What are the conditions for getting assistance?

- principle of cost sharing and community management
- criteria for getting financial assistance (subsidy); such as water needs; previous installations; minimum number of beneficiaries;

* How to make a request?

Who to approach, how and what information should be provided? Purpose of request, expected benefits, description of the users, actual water sources, what assistance asked etc.

* What next? and When?

Which procedure will be followed by the Programme for preliminary selection and contacting the applicants?

Factors influencing people's willingness to pay and manage water supplies

(from : Phil Evans, Paying the Piper, IRC Occasional Paper No. 18, 1992)

These factors may include:

- relative demand for water
- perceived quality of existing sources
- perceived benefits of improved facilities
- level of equity in likely distribution of benefits
- acceptability of technology
- acceptability of service level
- opportunity cost of improved water supply
- opportunity costs of management demands
- reputation of service agency
- political factors
- health awareness
- community cohesion
- transparency of financial management
- perception of ownership and responsibility (Evans, 1992)

*** Service level**

The level of service provided has an important influence on whether or not people will pay for it. The lowest (and cheapest) level of service can not always be assumed to be the most marketable. In some cases, consumers who are not willing to pay a modest rate for a simple point-source supply will gladly pay much more for a higher level of service such as a house connection.

*** Service standard**

If a system does not perform consistently, and does not continue to provide an acceptable level of service, willingness to pay is likely to diminish. This might be the case with certain piped water schemes in the Programme area.

*** Perceived benefits**

Paying for a service is effectively a decision to invest. Continuing willingness to repeat this expenditure is dependent on the benefits to be gained. Since some benefits can be easily seen and others can not, the extent to which possible benefits are perceived and recognized by consumers is important. For example, health benefits are often indirect and many consumers may not perceive them as a benefit at all. Other factors, such as the taste, smell and color of water from an improved supply, may be perceived as being more important.

Economic and financial benefits, in so far as they are more obvious and direct, may also have a greater influence on people's willingness to pay. If an improved service does not provide perceivable benefits in

comparison to an existing source of supply, users are unlikely to be willing to pay for it. Agencies and communities may not share the same perception of the benefits to be gained from service improvements. Within communities there can be important variations too. Different sections of a community may have different levels of interest in improved services, particularly where some stand to gain more than others. An awareness of consumer perceptions, and possible variations within communities, is therefore crucial in developing a sustainable programme.

*** Relationship to production**

Where water can be used for productive purposes, such as gardening or livestock watering, willingness to pay is likely to be higher than where it can not. Again, however, an improved supply must be able to deliver this advantage to a greater extent than an existing source if this factor is to be of importance.

*** Price**

Often alternative sources of water are available, even if of poor quality. The level at which water charges are set is likely to influence people's decisions as to whether to pay for a better service or stick with the old one. A balance needs to be drawn between establishing a price which will meet costs, on the one hand, and which people will be prepared to pay, on the other.

*** Relative cost**

In deciding whether the cost of a service is acceptable or not, people will often compare it to the costs of other services which they value equally, or which they consider to be of a higher or lower priority. The costs, for example, of electricity supply, schooling, or health care, may be used as bench marks against which the relative costs of water and sanitation services are measured. If the costs are considered to be too high in relation to others, willingness to pay may be affected.

*** Opportunity cost of time**

Where water is free, the basic cost to users, apart from the energy consumed in carrying it, is the time it takes to collect. The extent to which this time is valued may influence whether people are willing to pay for a service which will save time in meeting water needs. In most cases, the time in question is that of women. Men, however, may have a different perception about the value of women's time than women themselves.

*** Characteristics of existing sources**

Where users consider their traditional water sources to be acceptable, it is unlikely that they will be willing to pay for an improved service. Relative factors such as the quantity of water available, perceived quality, distance from home, potential economic uses, and the reliability of the supply, are all likely to influence

whether people will continue using existing sources, or pay for an improved supply.

*** Reputation of service agency**

The credibility of an agency providing a service will have an important influence on willingness to pay. In many developing countries, people have had experiences of development efforts which have promised much but, in the end, delivered little. The service agency - whether it is a government department, public enterprise, private company, or community management body - must be able to deliver the goods, and be seen to be doing so by the consumers.

*** Community cohesion**

Cost recovery is usually managed through voluntary contributions to a common fund. Good cohesion within a community is essential for this, but can not be taken for granted. Factional conflicts, or lack of trust in the village leadership or office holders, may mean that consumers are unwilling to cooperate in a joint venture of this kind, irrespective of felt needs. This factor is likely to be linked to others, such as the method devised for collecting and managing contributions, the distribution of water points in the community, and so on.

*** Policy environment**

The previous policy of seeking to provide basic services free of charge can make the covering of costs a difficult proposition. People are unlikely to be prepared to pay for services while they know that others got them free. When a free water policy is abandoned, it is important that new policies are clearly communicated and are implemented consistently.

*** Perception of ownership and responsibility**

The degree to which people feel responsible for their own water services may affect their willingness to pay. If they believe that a water supply system belongs to the government or Programme, for example, they may feel that it is the government's responsibility to take care of it. Even when systems have been formally handed over to communities, many people still do not accept ownership and responsibility. This factor may often be symptomatic of other problems, such as an inappropriate approach to implementation, inadequate consultation, or dissatisfaction with the type or level of service. A system which is imposed from the outside is unlikely to be fully accepted by a community, and willingness to pay is likely to be adversely affected as a consequence.

*** Transparency of financial management**

This factor may be closely linked to the reputation of the service agency or local management organization and is basically a matter of trust. If people can not see clearly what is happening to the contributions they make towards the upkeep of their water supply or sanitation system they are unlikely to be motivated to pay for it.

An acceptable and clear financial management system, with high levels of accountability, should help to instill trust and reassure people that their contributions are being used for the intended purpose.

*** Institutional framework**

The establishment of water committees which bypass existing authority or local management structures, for example, may limit the effectiveness of such bodies and make people reluctant to support them. A framework which is insufficiently open to users as a whole may also diminish willingness to pay if people feel that their views will not be accounted for in the development and management of systems.

COMPREHENSIVE TRAINING PROGRAMME
SUMMARIZED VERSION OF PROPOSED PROGRAMME
AUGUST 1992 TO DECEMBER 1994
(JULY 1992)

TYPE OF COURSE DESIGNED AND TRAINERS

S/NO.	COURSE	DURATION (DAYS)	PERIOD	TRAINING CENTRE	EXTERNAL TRAINERS
1.	MANAGEMENT TRAINING	7	JULY-DEC. 1992	MTWARA	D.S.M. UNIVERSITY
2.	SUPPORTING ACTIVITIES - Computer Programming - Safe Driving - Electricity	56 14 14	" " "	D'SALAAM MTWARA MTONGWELE	DAR - ES - SALAAM WATER INSTITUTE N.V.T.C.
3.	HAND PUMP SECTOR - Shallow Well Survey - Store Keeping	14 14	JAN - DEC 1993 "	MASASI MTWARA	WATER INSTITUTE D.S.A.
4.	SUPPORTING ACTIVITY - Office Procedures	14	"	MTWARA	C.S.T.C.
5.	WATER WORKS SECTOR - Pump Mechanics - Water Treatment	14 14	JAN - DEC 1994 "	MTONGWELE MTONGWELE	WATER INSTITUTE WATER INSTITUTE
6.	SUPPORTING ACTIVITIES - M.V. Mechanics - Plumbing - Carpentry - Masonry - Welding	14 14 14 14 14	" " " " "	LINDI MTONGWELE MTONGWELE MASASI N.V.T.C.	WATER INSTITUTE WATER INSTITUTE N.V.T.C. N.V.T.C. N.V.T.C.

Note: The number of participants in every course is 20 with an exception of 8 in computer programming. The number of participants will be divided equal for both regions.

USE OF HANDPUMPS NIRA 85 FOR MTWARA REGION

Period 31.12.89 to 05.05.91

	district balance 31.12.89	issues from Central Store (up to 07.05.91)	use		balance 07.05.91 total	balance	grand total
			replacement	construction			
Mtwara	41	74	69	12	81	34	115
Masasi	22	145	143	6	149	18	167
Newala	28	1	80	6	86	15	29
Total	91	220	220	24	244	67	321

from FINNIDA Store	25
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TOTAL	92
=====	

source: RWE's office Mtwara Region

ACHIEVEMENTS AND COVERAGE IN WATER SUPPLY IN LINDI REGION

VILLAGES WITH VILLAGE WATER SUB COMMITTEES AND WATER FUN

UP TO 31TH JULY 1992

NAME OF THE DISTRICT	TOTAL No OF VILLAGE	VILLAGES WITH V. W. S. C.	VILLAGES WITH V.W.F	TOTAL AMOUNT TSHS
KILWA	76	38	20	414 235 /=
LINDI RURAL	183	74	51	656056 / 30
LIWALE	39	22	8	65121/=
NACHINGWEA	65	25	12	33200 /=
TOTAL	363	159	91	1168 612 / 30

WATER SUPPLY SERVICE LEVEL INVENTORY IN LINDI REGION

UP TO 30TH JUNE 1992

TYPE OF SCHEME / AREA	WORKING TIME % OF THE YEAR	No	POPULATION CONCERNED
1. URBAN AREAS			
1.1 PIPED SCHEMES	60 - 100%	2	47,413
	0 - 60%	2	38,208
	NOT WORKING	-	
1.2 HANDPUMPS	60 - 100%	64	15,340
	0 - 60%	-	-
	NOT WORKING	37	7,711
1.3 NO W/S SERVICE		4	16,794
		SUB TOTAL 125,466	
2. RURAL AREAS			
2.1 PIPED SCHEMES	60 - 100%	21	72,680
	0 - 60%	-	-
	NOT WORKING	56	74,402
2.2 HAND PUMPS	60 - 100%	878	19,850
	0 - 60%	-	-
	NOT WORKING	300	56,712
2.3 No W S SERVICE		76	18,437
		SUB TOTAL 514,609 ?	
TOTAL POPULATION			640,075 ?

UPDATED DATA FOR S/WELLS UP TO 30TH JUNE 1992

DISTRICT	OPERATIVE		NON-OPERATIVE		TOTAL	
	URBAN	RURAL	URBAN	RURAL	OPERATIVE	NON-OPERATIVE
LIWALE	5	80		22	85	22
KILWA	17	204	8	52	221	60
NACHINGWEA	22	147	22	44	169	66
LINDI	20	447	7	182	467	189
TOTAL.	64	878	37	300	942 (74%)	337 (26%)

total
1279

TERMS OF REFERENCE FOR PHASE II STUDY

ON INSTITUTIONAL, FINANCIAL AND LEGAL ARRANGEMENTS FOR THE
REORGANIZATION OF THE MAKONDE WATER SUPPLY ORGANIZATION

30.9.1992

1.

MTWARA - LINDI WATER SUPPLY PROJECT
REORGANIZATION OF THE MAKONDE PLATEAU WATER SUPPLY

PHASE II STUDY ON THE INSTITUTIONAL, FINANCIAL AND LEGAL ARRANGEMENTS FOR THE REORGANIZATION OF THE MAKONDE PLATEAU WATER SUPPLY

CONTENTS OF PHASE II STUDY - TERMS OF REFERENCE:

The detailed contents of Phase II Study is envisaged to contain the following elements:

- Definition of the institutional and administrative arrangements,
- Definition of the organizational structure and manning schedule,
- Definition of the financing arrangements - short term and long term,
- Proposal for cost recovery structure including tariff structure and collection system,
- Proposal for the schedule of reorganization and definition of further steps to be taken for its implementation,
- Drafting of enabling legislation to establish MPWSS.

Specifically, the Consultancy Team will perform the following duties and the Phase II Study should include among other things:

1. Definition of the organizational, functional and financial principles for MPWSS
 - Manpower issues such as staffing schedule, scheme of service and incentives, recruitment procedures, organizational structure and job descriptions etc.
 - Financing arrangements,
 - Institutional and administrative arrangements,
 - Information Systems,
 - Customer Services,
 - Efficient transport, communication and procurement system.
2. Draft legislation to enable the establishment of MPWSS.

5.

3. Study the cost recovery structure including tariff structure and collection system.
4. Study of the valuation of the assets.
5. Study how NGOs, particularly Newala Development Foundation, may financially support MPWSS.
6. Study effective means of community mobilization for participation, organization and education.
7. Study the composition of consumers representation in the autonomous body and shareholdings.
8. Prepare comprehensive Phase II Study report for review and implementation.

For the supervision of the reorganization development, representatives from MWEM, Finnida and the Project will be nominated to form the Advisory Team.

PLANNED NEXT STEPS

In the process of reorganization of Makonde Plateau Water Supply following steps, after the seminar held during April, 8-10, 1992, have been taken/ are required:

1. Government commitment to proceed in the reorganization. This commitment can be in the form of MWEM's request to Mtwara- Lindi Water Supply Project to commence the Phase II Study and MWEM's confirmation for the Final Seminar Resolutions. This confirmation was supposed to be available mid June 1992. However the confirmation is now promised before the end of September 1992.
2. Phase II Study is based on the outcome of the Seminar Resolutions. To carry out Phase II Study the following measures have to be taken:
 - Preparation of the contents of Phase II Study - Terms of Reference, (enclosed in this presentation)
 - Selection of the consultant team, (see below)According to the Seminar Resolutions the Study will be started after MWEM's request and the study report will be ready according to the present plans in March- April 1993.
3. Review of the consultants' proposal, -Phase II Study Report-, and the formulation of the arrangements for the final Government approval on forming an autonomous body will be finalized. Seminar resolutions stipulates this phase to be performed in the beginning of 1993 and the approval by the Government to be available in June 1993.
4. Implementation of the decisions. Start of implementation is scheduled from July 1993 to February 1994. During this time grassroot mobilization, formation of board of directors and appointment of key personnel including the chief executive and other personnel for the autonomous body

6.

... to be made. This phase will need additional consultancies for supporting the reorganization and working out additional details.

The schedule of these steps is below:

	1992	1993	1994
Seminar preparations	—		
Seminar	—		
1. Govt commitment to reorganization	—		
2. Phase II Study	—		
3. Review of consultant proposal, formulation of reorganization arrangements	—		
Govt decision on reorganization	—		
4. Implementation of decisions	—		

THE CONSULTANCY TEAM FOR PHASE II STUDY

The Consultancy Core Team for Phase II Study will consist of four members. The Consultancy task is recommended to perform by a team of local and external consultants.

The experts representation in the Consultancy Team shall consist in the following division of responsibilities:

- Expert on organizational management
(Team Leader and Coordinator) Timo Tuominen, Finnwater
- Sociologist/ Social Scientist Hilda Kiwasila, UDSM
(Member) *Dr. Mathemi*
- Water Supply Specialist R.O. Swai, State Attorney
- Expert on Legislation Maji
(Member)

Phase II Study will be made as part of the project programme as stipulated in the project document. Some parts of the study will be made as special assignments by individual short term consultants. These assignments could be for example; management expert/restructuring, water associations/cooperative expert, study of cost recovery structure, skills analysis of the present staff and evaluation of staffing needs, CP-mobilization, etc. For these

assignments the consultancy team will invite additional members when need arises. The Project personnel will assist in the Study for example in community mobilization matters.

The duration of the study will be altogether approximately six months and the study will start after the request from the MWEM has been received. The costs of the study will be covered by the Project funds.

Schedule and Budget for 1992 - 1993

PHASE II	1992					1993					
	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May
1. COMMENCEMENT * Gvt commitment to the reorganization				—							
2. PHASE II STUDY * Organisational, functional & financial principles * Draft legislation * Recovery structure * Valuation of assets * CP -mobilization and consumer representation * Preparation of study report				—	—	—	—	—	—	—	—
3. MANNING SCHEDULE * Phase II Study Team - Team leader, 4 mm - Sociologist, 4 mm - Water Supply specialist, 4 mm - Legislation, 2 mm - Support const., 3 mm - Project support				—	—	—	—	—	—	—	—
4. CONSULTANT BUDGET - expat consult 7 man months - local consult 10 man months											
	Total 510.000.-										
	1992 220.000.-										
	1993 290.000.-										

THE MAKONDE PLATEAU WATER SUPPLY PHASE II STUDY,
MEMBERS OF THE TEAM

1. CORE TEAM

There will be four (4) members forming the core team who will be responsible for the main tasks according their areas of specialization. The team will comprise of the following:

- Project Management and Institutional Expert (Team Leader and Coordinator)
- Socio-Economist (Member)
- Water Engineer (Member)
- Legal Framework Expert (Member)

2. PERIPHERAL MEMBERS

In order to carry out their (Core Team's) tasks other expertise will be needed and can be called upon on short term basis. The various members are as follows:

- Management Expert (Restructuring)
- Water Associations/Cooperatives Expert
- Cost Recovery Expert
- An LFA/ZOPP Moderator
- Recipients/Consumers Representative
- NGO Expert

3. TASKS FOR INDIVIDUAL MEMBERS OF TEAM

PROJECT MANAGEMENT AND INSTITUTIONAL EXPERT

- Team Leader
- Overall Coordinator/Overseer
- Formulate Time Schedules for Each Member and Team
- In Charge of all Tasks of the Other Members (In terms of accuracy, Relevancy and Timing)
- Take part in developing a Scheme of Service for MPWSS Staff Study
- Take part in studying Institutional and Administrative Structures and Information Services
- Take Part in Preparation and Coordination of the Report
- Assessment of Staff Qualifications for the MPWSS
- Institutional Linkages of MPWSS with other Institutions
- Linkage Patterns
- Any other duty which might be deemed necessary to carry out the Tasks (including those of Peripheral Team)

SOCIO-ECONOMIST

- Assist in Financing Analysis
- Study Customer Services
- Consumer Representation
- Role of NGO's

9.

- Community Mobilization etc.
- Take Part in the Preparation of the Report
- Any other duties as may be assigned by the Team Leader

WATER ENGINEER

- Cost Recovery Study (Tariffs + Collection)
- Environmental Sanitation Arrangements
- Take Part in the Preparation of the Report
- Organize an LFA/ZOPP Workshop
- Analyse Possible Extensions of MPWSS to cover unserved Communities
- Technical Evaluation of Existing MPWSS (equipment etc.) in terms of appropriateness, working conditions, spareparts, rehabilitation/ extension needs etc.
- Any other duty as may be assigned by the Team Leader

LEGAL FRAMEWORK EXPERT

- TRANSITIONAL PERIOD Arrangements
- Draft enabling legal Framework to Establish MPWSS entity
- Take part in the preparation of Report
- Any other duty as may be assigned from time to time by the Team Leader
- Scrutinize existing laws
 - Water Utilization Act
 - Local Government Act
 - Forestry Act
 - NUWA Act
 - National Water Policy
 - Water Master Plan for Lindi
 - The Defunct Makonde Water Board Act
 - Waterworks Ordinance Act

4. AGENDA FOR AN LFA/WORKSHOP

A two (2) days LFA Workshop might be necessary during half way of the study.

- Brain storming
- LFA Introduction
- LFA Sessions
 - Problem analysis/definition
 - Alternatives
 - Internal/external factors
 - Indicators
 - Project elements
 - Strategy analysis
 - Objective analysis
 - Participation analysis

Venue will be in the project area, invitees about 20 participants.

