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MTWARA-LINDI RURAL WATER SUPPLY PROJECT

REPORT OF THE EVALUATION MISSION

JANUARY-FEBRUARY, 1990

DOCUMENT OF
MINISTRY FOR FOREIGN AFFAIRS
FINNISH INTERNATIONAL DEVELOPMENT AGENCY (FINNIDA)
HELSINKI, FINLAND

ABBREVIATIONS AND ACRONYMS

AFYA	MINISTRY OF HEALTH
CCM	CHAMA CHA MAPINDUZI (THE RULING POLITICAL PARTY)
CONSULTANT	FINNWATER
DTH	DOWN-THE-HOLE HAMMER (DRILLING RIG)
DWE	DISTRICT WATER ENGINEER
ELIMU	MINISTRY OF EDUCATION
FIM	FINNISH MARK
FINNIDA	FINNISH INTERNATIONAL DEVELOPMENT AGENCY
GOF	GOVERNMENT OF FINLAND
GOT	GOVERNMENT OF TANZANIA
HRD	HUMAN RESOURCES DEVELOPMENT
MAENDELEO	COMMUNITY DEVELOPMENT OFFICE
MAJI	MINISTRY OF WATER
O&M	OPERATION AND MAINTENANCE
PROJECT	MTWARA-LINDI RURAL WATER SUPPLY PROJECT
RIPS	RURAL INTEGRATED PROJECT SUPPORT
RWE	REGIONAL WATER ENGINEER
TAS	TANZANIAN SHILLING
UNDP	UNITED NATIONS DEVELOPMENT PROGRAMME
UNICEF	UNITED NATIONS CHILDREN'S FUND
UWT	UMOJA WA WANAWAKE TANZANIA (WOMEN'S ORGANIZATION)
VWSC	VILLAGE WATER SUB-COMMITTEE
W/S	WATER SUPPLY

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EXECUTIVE SUMMARY

EXECUTIVE SUMMARY

The objective of Phase V is, in addition to the increasing of water supply coverage, the ensurance of the reliability of operation. This is assumed to be achieved by integrating the Project into MAJI organizations, by institution building, by development of operation and maintenance, by manpower development and by increasing community participation.

The objectives and the strategy are appropriate, but during the remaining period of Phase V institution building and community participation aspects should be strongly emphasized.

Integration of the Project into the regional MAJI organizations is almost complete. Revision of organization charts and better definition of duties and lines of reporting are still required.

The Project is still implementation oriented and the importance of institution building is not fully understood. Although procedures for planning, budgeting and follow-up have been developed and are in use, they have not been properly documented. The same applies to the management of stores, workshops and garages. Thus, the sustainability of the procedures is unsure and training of staff in their practical use ineffective.

An effective computerized management information system should be developed as soon as possible to avoid loss of data and to provide realistic basis for future plans.

Physical improvements of point source supplies and piped schemes have continued. Because of lack of reliable data, percentage coverages can not be given. The proportion of non-operating handpump wells is alarming. Better community involvement and better control of the quality of construction are required.

Short cuts have been taken in the design and implementation of rehabilitated piped schemes. Where works have not yet started, project preparation procedures should be revised and standard MAJI procedures taken into account. Consequences of the electrification of Kitangari water supply should be studied. More community involvement is needed also in piped schemes.

The O&M of point source supplies has been improved by training pump attendants, by preparing written instructions in Kiswahili and by making spare parts avilable in regional, district and areal stores. Replacements of old pumps by NIRA AF 85 has improved possibilities of communities to carry out the O&M of their water supplies.

Additional training of operators, development of O&M procedures and manuals and support by MAJI district offices in spare parts supply and major maintenance are required for successful O&M of piped schemes by communities. Better documentation of O&M procedures and procurement of spares and consumables through local channels need to be arranged for the MAJI operated schemes.

Better follow-up of the O&M of all types of supplies is necessary.

Good foundation work for human resources development has been done. In the future the mangerial training should focus on capability to deal with the mainly non-technical constraints faced by mangerial staff in the regions. For training in skills, performance objective statements should be developed and training materials prepared accordingly. Government of Tanzania policies need to be taken into account in all human resources development.

The sustainability of the developed systems is doubtful since no tradition has been established for Tanzania to continue investment in manpower development.

A new concept and working approach based on mass campaigns and training of leaders in mobilization skills is in use. As a result, awareness of the importance of community participation has increased. Actual work following the new approach is being done in pilot areas. Collection of quantitative data on experiences needs to be arranged and revision of the approach as well as planning of organizational set-up done on the basis of these data.

Establishment of a cost recovery system has been started by founding village water funds.

The inputs of the Government of Finland have, as a whole, been supplied satisfactorily according to the project document. A major problem facing the Project is the inability of the Government of Tanzania to supply the local component. This has retarded progress and made planning of work difficult and sometimes meaningless. The local contributions are a cornerstone of sustainability and can therefore not be substituted by donor inputs. In the future the rate of activities should be adjusted according to the availability of inputs of the Government of Tanzania and local communities.

The roles of the various committees in monitoring and controlling the progress of the Project as well as the approval procedures of plans, designs and programmes need to be reconsidered.

Spending of the foreign fund component is fairly well monitored although both the budgeting and the follow-up systems need improvement. Information about the budgeting and use of local funds is not easily available.

1. BACKGROUND

The governments of the United Republic of Tanzania and the Republic of Finland have agreed that within their development cooperation programme one of the key sectors is water supply and sanitation.

Based on this agreement a water supply project was identified in 1972 in Mtwara and Lindi Regions in Southern Tanzania. Since then, the Project, named Mtwara-Lindi Rural Water Supply Project, has proceeded through the following phases:

Feasibility Study	1972 - 1973
Housing Project	1973 - 1974
Water Master Plan	1974 - 1977
Implementation Phase I	1978 - 1980
Implementation Phase II	1980 - 1981
Implementation Phase III	1982 - 1984
Implementation Phase IV	1985 - 1987
Integration and Institution Building Phase V	1988 - 1990

The main target of Implementation Phases I, II and III was to create a minimum level water supply system to the project area as soon as possible. As severe problems regarding the sustainability of water supplies became evident the approach of the Project was revised towards more institution building and participatory mode.

Implementation Phase IV already was a transition phase in which the actual construction as well as operation and maintenance activities were gradually transferred to the local water authorities. The main target of Phase V has been 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 sypply system in Mtwara and Lindi Regions.

Now that two years of the three year period of Phase V have elapsed, FINNIDA has decided to carry out an evaluation of this phase by an independent team. The purpose of the evaluation is to assess and analyse the progress of the Project in Phase V and to make recommendations for the future. A draft project document for a future phase will be partly based on these recommendations. The complete Terms of Reference for the Evaluation of Mtwara-Lindi Rural Water Supply Project in Tanzania are presented in Annex 1. The composition of the evaluation team and the main fields of specializing of each member has been the following:

Mrs Urpu-Liisa Airaksinen	Finntreat Ltd Water Engineer Team leader and editor of reports
Mr Neil Carefoot	WHO/Human Resources Development Department Human resources specialist

Mr Osmo Purhonen	UNDP/World Bank Sector Development Team Water Engineer Institution building, piped water supplies
Mrs Hilda Gondwe	Ministry of Water Economist Costs and financing, community participation
Mr Jeremias Kobaliende	Ministry of Water Hydrogeologist Point source supplies

2. EVALUATION OF PHASE V

2.1 Development Objectives

The development objectives of the Project as given in the project document are:

- to improve the water supply situation in the regions in order to achieve an improvement in general health and economic development,
- to increase the coverage of improved water supply from 27% to 40% of population,
- to ensure the reliability of operation of water supply according to standards,
- to introduce the idea of cost recovery in order to make funds available for implementation and especially for operation and maintenance as soon as the new policy of the water supply sector has been made official.

Although the Water Policy has not been made official yet, the Ministry of Water is using it as a guideline and the objective of introducing cost recovery can be considered valid for Phase V of the Project. However, cost sharing by beneficiaries rather than cost recovery has been advocated during Phase V.

Activities required for the achievement of the objectives are divided into five separate sectors in the project document and specific sector objectives presented for each sector. These and their achievement will be discussed in the following chapters together with other aspects of each sector.

In round table discussions with 18 persons in Mtwara and 19 in Lindi belonging to the project personnel on management - supervisor level or to local organizations working closely together with the Project, the participants were asked to formulate a service statement of the Project. The answers showed that the project objectives, as stated in the project document, were not very familiar to the participants. However, the principles of sustainability by operation

and maintenance at village level, development of skills by training and motivation of people to take care of the supplies, which all are included in the general or specific sector objectives, were mentioned.

It is the opinion of the Mission that the objectives of the Project have been both realistic and appropriate in the beginning of Phase V when it has been assumed that all inputs will be supplied as planned. Inputs of the Government of Tanzania have, however, not been supplied as assumed in the project document. It is unlikely that the supply of these inputs could increase during the remaining project period so that full achievement of all objectives could be accomplished.

Recommendation

1. Direct the limited resources to the achievement of objectives related to reliabilty of operation and sustainability of water supplies.

2.2 Project Strategy

2.2.1 Main Features of the Project Strategy

The main features of the strategy presented in the project document are:

- change towards an institution building approach in all aspects,
- transfer of responsibility for all activities in the water sector to the regional and district offices of MAJI with technical assistance and limited material support provided by FINNIDA,
- full integration of project personnel and facilities into the local MAJI organizations,
- strengthening the management and O&M capabilities of the MAJI organizations,
- gradual transfer of responsibility - including cost sharing - for the implementation and O&M of water supplies to the direct beneficiaries or to relevant government organizations.

It is the opinion of the Mission that the above strategy principles are appropriate for achieving the objectives.

2.2.2 Followance of the Strategy by the Project

According to the findings of the Mission the strategy presented in the project document has not been fully followed. The main deviations have been the following:

- The Project is still production oriented, and the importance of institution building has not been fully understood either by the local or the expatriate project personnel. Strengthening of management capabilities of local MAJI organizations by development of practical management procedures and by training

the managerial personnel in their use has not received adequate attention.

- Total integration has not taken place; some parallelism of organizations still exists.

- Great effort has been made by the Project to follow the strategy of gradual transfer of responsibility to the communities themselves for carrying out and financing the O&M as well as for participating in the implementation of their water supplies. The Mission has, however, been informed that only after the adoption of a new approach in the beginning of 1989, the Project has been able to successfully follow the strategy for community involvement.

- It has not been possible to follow the strategy for responsibility transfer to governement organizations as far as the financial responsibility is concerned because of lack of funds on both district and central government levels.

- As a step towards transfer of financial responsibility to GOT, partial reimbursement of the material support by FINNIDA has been agreed to in the project document starting in the fiscal year 89/90. This has not taken place.

Recommendations for better followance of the principles set forth in the project document are given in the later chapters when the different sectors of the Project are discussed.

2.3 Institution Building

2.3.1 Sector Objectives

The development objectives of this sector as stated in the project document are as follows:

- The strengthening of water development management, implementation and coordination of activities with relevant organizations by upgrading the managerial skills.

- The ensuring of the implementation by improvement of supporting activities such as maintenance, transportation, procurement and storing.

The above objectives are relevant and essential for the overall performance of the water supply sector in the two regions. This was clearly demonstrated in the round table discussions conducted by the Mission as the participants consisting of senior managers/supervisors from both regions identified several management problems as the major factors hindering the progress of the Project. It is realistic to expect that improvements can be achieved through efforts by the Project but unrealistic to assume that the sector objectives can be totally achieved during Phase V and that no further support is required.

Recommendation

2. Emphasize strengthening of the management capabilities of local MAJI organizations during the remaining time period of Phase V and thereafter.

2.3.2 Sector Targets and Outputs

In the project document the Institution Building sector has been divided into six componets comprising 23 outputs. Below, planning and follow-up systems belonging to the management component and transportation, workshops and stores will be dealt with while reporting, fund management, coordination and local staff will be discussed in chapters 2.10, 2.11 and 2.9, respectively.

2.3.2.1 Planning

According to the project document the Project is supposed to produce annual and quarterly work plans and budgets. Procedures for these plans are supposed to be improved both for the regions and the districts and to be in use by the preparation of the budget for fiscal year 89/90. Furthermore, it is requested that the plans have to be prepared in time to allow realistic budgeting and to be approved by the Advisory Committee.

The Project has through advisory support, counterpart training and training courses and seminars assisted RWEs and DWEs in the preparation of budgets and work plans. Quarterly work plans and budgets in the different fields of activities, e.g. waterworks rehabilitation, shallow well production, maintenance of water supplies, etc. have been discussed in the project meetings and in the District Water Engineers' meetings. This planning has mainly covered those activities which are supported by the Project while activities, for example hydrological studies, which are not directly supported have not benefitted from the improved planning.

The above described practice has improved the standard of the budgets and made them more realistic. The established government budgeting systems and procedures have been followed, and it seems that the MAJI personnel consideres the present practice adequate and find further support in this field less important.

The work planning and budgeting have suffered from the constant uncertainty of the actual release of funds. This has been the case particularly in the districts where the District Councils frequently reallocate and reduce the funds budgeted for the District Water Engineers.

The Mission has had an opportunity to review the Work Plans for 1989 and 1990. They are comprehensive containing job descriptions of personnel and descriptions of working methods in addition to the actual action plans. The action plans do not give a clear picture of the planned activities. They contain restatements of the general and sector objectives instead of giving specific and quantitative targets for each sector of the Project. In the time schedules the activities are not adequately detailed and the time schedules are not accompanied

with procurement and manpower schedules. There are some contradictions in the descriptions of duties of personnel and omissions of activities. It is also not possible to conclude form the plans how the unachievement of targets has been taken into account in the procurement plans as reduced purchasing.

The Project was not able to present to the Mission any manuals describing procedures for estimation of spare parts and materials requirements, for preparation of procurement plans or for ordering supplies. Procedures seem, however, to exist and be in use, and the the Project has made a considerable impact in this field.For sustainability reasons and for training purposes it is extremely important that manuals describing the procedures will be written during the remaining period of Phase V and submitted for approval to the Advisory Committee.

Only one meeting of the Advisory Committee has been recorded in the reports. This has taken place on the 29th of November. Its minutes report discussion of the action plan for 1990 but show no record of official approval of it. According to the project document the Advisory Committee, being the main body for approval of plans and monitoring of the progress of the Project, should include representatives of MAJI headquarters and FINNIDA. At the above meeting these representatives have not been present. Of the 13 participants 11 belong to the project personnel directly involved in the preparation of the Work Plan and, thus, it is questionable whether the meeting would have been competent to approve it.

Recommendations

3. Improve planning methods, make plans more detailed and include activities of the local MAJI organizations. Describe developed planning methods in manuals.

4. Revise the method of approval of plans and programmes.

2.3.2.2 Follow-up

According to the project document the Project is supposed to have developed follow-up procedures for finance, costs, construction, and O&M and put them in use by the beginning of the financial year 89/90, i.e. by the beginning of July, 1989. Also, data collection, storage and analysing procedures should have been developed by the same date.

The follow-up of financing and project expenditures has been done using a system which is based on the requirements of FINNIDA although expenditures have also been monitored on sectoral and areal basis. The follow-up has only to a very limited extent covered the MAJI expenditures. It should be noted here that the TORs of the Project Coordinator and the Purchasing Officer given in the project document do not quite cover the duties required for the achievement of outputs and indicators.

The follow-up of construction normally includes verification of both the quantity and the quality of performed work. As far as the follow-up of the construction of point source supplies and replacement of old

handpumps is concerned, the Mission was informed that after the transfer of responsibility for these activities to the districts, the Project relies on figures presented by the DWEs. Practically no quality control during construction is carried out by the Project. Evidently recording of the achievement indicators listed in the project document has not even been attempted.

Follow-up systems of waterworks rehabilitation programme are weak and there seems to be lack of interest towards this activity among both the MAJI and the advisory personnel.

Follow-up of O&M of and handpump wells is carried out by collecting information from DWEs and by making annual follow-up safaris.

MAJI has systems and procedures for monitoring the O&M of piped water supply schemes. Despite of its existence the system is not functioning and very little data on O&M are arriving to DWE's office and even less to RWE's office. Reasons given are common infrequent operation of the schemes and low skills of the operators - a high number of them can not write. The Project's efforts in this sector have focused on district and regional offices of MAJI where training and assistance have been given in the monitoring of spare part requirements and maintenance needs. In the absence of reliable operational data the impact of this assistance can not be very big.

The Project has collected considerable amounts of data on water resources and water supplies in connection with various studies, annual handpump well follow-up safaris, inspections of piped water schemes, etc. In Lindi region the MAJI engineers have developed a data collection system which is based on questionnaires sent to the DWEs once in three months and to the RWE once in six months. In addition visits to districts to ensure receiving of reliable data on the water supply situation are made at least once in three months.

The data are recorded in reports and in a well-card system which, however, is not very conscientiously up-dated according to spot checks made by the Mission. Thus it can be concluded that the data collection is poorly organized, storing is not properly arranged and analyses not done. Retrieval of data even for evaluation purposes proved to be difficult.

It is the opinion of the Mission that planning of a Management Information System (MIS) including development or revision of methods for the collection , processing and reporting of data should be done as soon as possible to avoid losses in the amount and reliability of data. The MIS should comprise at lest the following sub-systems:

- water resources
- condition of constructed water supplies (including user and water quality data)
- water sub-committees and water funds
- operation and maintenance of water supplies
- manpower and training
- logistics of equipment and spare parts supply
- vehicle use and maintenance

Because of the fairly large quantity and complicity of the data, the storage and processing has to be computerized. The importance of getting a really useful and practical system probably justifies the employment of a specialist short term consultant for its planning.

Recommendations

5. Revise the existing follow-up systems of financing, cost control and O&M. Describe the new systems in manuals and start training of district and regional MAJI personnel in their use.

6. Develop a management information system which will use computerized data processing before the end of Phase V.

2.3.3 Transportation

The project document calls for the development of an effective transportation system the indication of which would be cost effective transport of materials, equipment and spare parts.

The transport situation has improved considerably in 1989 after the purchase of a number of new vehicles. The details of the present fleet are presented in Annex 3.

The Project has made rules for the use and maintenance of project vehicles in order to make transportation of materials, equipment and personnel efficient and to prevent misuse. The control measures have included requirements of authorization of use by a limited number of people only and strict logkeeping. As a result vehicles seem to be well managed at the regional level. Breakdowns have not been very frequent except for two vehicles involved in major accidents. Also, the "self driving" system by the advisers has contributed towards good care and proper use of vehicles.

The vehicles - except for some permanently allocated ones - have been kept in regional and project pools since July, 1989, and transport support has been planned and provided on the basis of requests. The system seems to have worked efficiently as fas as the provision of transport is concerned. Only the sanitation section reported the lack of transport to be the most serious hindrance of activities. The control of economic vehicle use seems to have been less succesful. It can be seen from the progress reports that milages and running hours have been high. In the abeence of adequate data system it has not been possible to identify the areas and/or activities which have used transportation support excessively. It is the impression of the Mission, however, that controlling the use of the vehicles allocated to the districts is particularly difficult. The Consultant and the RWEs are in a situation in which they can not interfere with the use of these vehicles, and the present control methods which only provide for checking of log-books afterwards do not ensure appropriate use of vehicles.

To improve the situation a draft of new regulations has been prepared by the Project Coordinator. This draft gives detailed rules about the management and maintenance of vehicles and defines the duties of different parties in maintenance and spare parts supply. It fails,

however, to mention the need of advance authorization of normal use for project purposes during working hours. Although a form for 14 day vehicle use is attached, there is no advice how to collect data for this plan and how to prepare it.

The basic difference between the new draft and the present practice is the introduction of payments for the use of regional pool vehicles. The money to be collected is proposed to be returned to the local component. Thus the payments would not increase the inputs by GOT or decrease the donor support. It is the opinion of the Mission that the payment system would help in preventing inefficient and unappropriate use of vehicles.It should apply to all vehicles including those allocated to districts.

Inclusion of collection and processing of vehicle use data in the MIS is likely to be useful in finding the reasons for and elimination of excessive use.

Recommendation

7. Make new regulations including payments for the use of vehicles, submit them for approval to the Advisory Committee and start following them after approval.

2.3.4 Stores

The required outputs, as presented in the project document, are:

- integration of stores to MAJI organization,
- construction of additional stores,
- improved storekeeping.

The Project has established and run the following central stores in Mtwara:

- waterworks store containing pipe fittings, spares for motor driven pumps, etc.,
- vehicle spare parts store,
- construction materials store,
- handpump and handpump spares store.

The integration of the stores has taken place before the end of 1989 except for the construction materials store and the share of Mtwara region of the vehicle spare parts store. When handing over the waterworks store an inventory has been taken and half of the stock sent to Lindi regional store. Likewise, half of the stock of the vehicle spare parts store has been despatched to Lindi. The central handpump store in Mtwara is under the control of the Groundwater Setion and functions as a distributor of supplies to the district and areal stores the total number of which is 10 according to the latest annual handpump stores report from December, 1989.

The nonintegration of the construction materials store does not seem to present problems since it is rather small and temporary in character. On the other hand, the handing over of the vehicle spare parts store in Mtwara has become a problem because of differences of opinion over the

competence of storekeepers. It is the opinion of the Mission that this internal management problem should be solved as soon as possible to prevent further delay of integration.

The project document does not give any quantitative targets concerning the construction of additional stores. The following physical improvements of store facilities have been carried out:

- Design of a new vehicle spare parts store - a part of the rehabilitated and extended workshop, garage and store complex for Mtwara region - has been completed and materials ordered. Construction will take place during the remaining project period.

- Minor rehabilitation of Lindi stores has been carried out.

- The Mtwara district store is under construction.

- Containers to be used as stores have been provided to districts together with converted workshop containers.

The above measures seem to be adequate for providing reasonable store facilities in the project area.

The requirement of improved storekeeping implies training of staff, development of procedures, sufficient spare parts delivery to districts and capability of MAJI staff to estimate needs.

The number of trained storekeepers is still low but the Comprehensive Training Programme includes courses in store management and storekeeping. It has been observed by the advisers that after the handing over of the responsibility for ordering spare parts for mechanical equipment to the regional Mechanical Workshop Officers, the preparation of order requests and specifications has presented problems, and more training is required in this field. Also the keepers of district and areal stores need refresher on-the-job training and follow-up.

Procedures for purchasing, storing, ordering and issuing of goods have been developed by the Project and are in use. Spot checks by the Mission showed, for example, that the storekeepers of the central handpump store are able to retrieve data on existing stock and issued items quickly and effectively. No proper documentation of these procedures was, however, available. The Mission believes that the training of staff would be more effective and the continuous use of proper procedures better ensured if the procedures had been well documented and described in manuals. Simultaneously the compatibility with official MAJI procedures could have been checked.

The capabilities of the MAJI staff of regional and district stores to estimate the demand of spare parts and materials need improvement. For example, the Annual Handpump Stores Report, December, 1989, shows that there are altogether 564 NIRA 85 handpumps in the stores, 240 in the districts and 324 in the central store, while the total demand in the fiscal year July 88 - June 89 was - according to progress reports - 231 pumps and in the last half year July - December 89 only 88 pumps. The

estimation of needs is closely connected with the preparation of the action plan in which the constraints caused by the lack of local funding should be taken into account. Also, the Mission believes that a data retrieval system which would make it possible to easily review the demands during previous months and years would greatly facilitate the estimation.

Recommendations

8. Complete the integration of the vehicle spare parts store in Mtwara region as soon as possible.

9. Document store management and storekeeping procedures.

10. Improve the capability of staff to estimate spare parts and materials demand by training and by combining the estimation activity with other planning and by providing access to data from previous months and years through effective data system.

2.3.5 Workshops and Garages

The required outputs according to the project document are:

- integration of vehicle and equipment maintenance with MAJI organizations,
- construction of additional workshops,
- improved workshop operations.

The establishment, improving and handing over of workshop facilities for welding and fabrication of steel structures and pipework and garages for vehicle and equipment maintenance and repair has been an ongoing activity since the beginning of 1988. Since July, 1989, the local MAJI organizations have been in charge of all workshops and garages. The post of expatriate Workshop Officer has been cancelled when the term of duty of the holder of this post expired in July, 1989.

The rapid integration has not taken place without problems. Tools have disappeared from the complete sets provided by the Project at handing over. Occationally the work has suffered from the lack of spare parts caused by lack of skills in materials management. The facilities in Mtwara have a disorganized appearance and give an impression of poor overall management. In comparison the situation in Lindi is much better.

The requirement of additional workshop construction is not quantified in the project document. The construction has proceeded as follows:

- Containers have been converted for use as workshops, equipped with tools and machines and delivered to all districts excluding Masasi which has a permanent workshop buildings. Tools and machines have been delivered also to Masasi.

- Rehabilitation works of garages have been carried out at Mtwara and Lindi regional headquarters.

- Designs for the rehabilitation and extension of garage, mechanical, electrical and carpenter workshops and offices for workshop personnel at Mtwara regional headquarters have been completed and the construction is about to start.

- Construction of facilities for Mtwara district is going on.

The Mission believes that after the completion of the above activities the workshop and garage facilities in the project area will be reasonably adequate.

According to the project document the workshop operations can be considered improved if there is sufficient trained staff at each workshop and if vehicles and equipment are properly maintained.

There are two mechanical engineers with degrees from an Indian university in charge of the regional workshops and garages. Their experience on practical work is so far very limited. The mechanics and electricians have received on-the-job training from the expatriate project personnel and attended courses according to the Comprehensive Training Programme. According to the estimate of the expatriate mechanical engineer the district mechanics are capable of maintaining diesel engines and pumps and to some extent of overhauling cars.

More training is, however, required. In Lindi, for example, the Mission was informed by the MAJI personnel that the Tanzanian mechanical staff still lacks confidence and needs more practical experience which is best gained by working for adequate periods of time side by side with expatriate advisers. Because of lack of training in the maintenance and repair of Sisu trucks and model 110 Land Rovers the Lindi region has been obliged to send them to Mtwara for repairs. To avoid this dependency, training has to be provided to the garage staff of Lindi, including the mechanical engineers, in the care of the afore mentionend vehicle types.

The Mission has observed that again documentation of mangement procedures is lacking. If the Consultant is to follow the strategy to "train, advice and assist MAJI staff to use new tools" such as methods to run a workshop, as requested by the project document, it is important that they are documented. In cases of transfer or unacceptance by MAJI of personnel employed and trained by the Project, the lack of documentation of methods will present serious management problems after the handing over is accomplished.

As far as the Mission could conclude, the vehicle fleet is at present in reasonably good condition and fairly well maintained. It should be pointed out, however, that most of the vehicles are still new and the maintenance and repair needs small. It is doubtful whether the present capabilities of the garages will be adequate in the future.

Recommendations

11. Intensify training of workshop and garage personnel at all levels to improve the overall management and to increase the confidence of personnel in their own capabilities.

12. Prepare manuals describing the management and working methods of workshops and garages and use them as training materials and as instructions in the daily work.

2.4 Physical Improvements to Increase Water Supply

2.4.1 Sector Objectives

The development objectives of this sector, as stated in the project document, are as follows:

- the consolidation of supplies to existing users by the implementation of appropriate physical improvements to the water supply systems,

- the enabling of additional people to be served through the rehabilitation of exixsting supplies and the design and construction of handpump wells and other water points as well as piped schemes compatible with the guidelines of MAJI and meeting the needs of the users.

The above objectives are appropriate although the construction of new piped water schemes can be questioned in the prevailing situation where the general financial and also the technical capabilities to operate and maintain the schemes are poor. Otherwise the objectives are realistic and it is expected that, to a reasonable extent, they will be achieved.

2.4.2 Studies

The project document includes studies for Makonde Plateau Water Supply, Rondo Plateau Water Supply and for the rehabilitation of existing piped water supplies. In addition to these, the Project has supported "Willingness to Pay" study by WASH in the Makonde Plateau area.

The Makonde Plateau W/S Study has been carried out by the Water Resources Institute team in 1989 and a draft report is available. The team has investigated the present water supply situation in the area and made proposals for improving the operation and for extending of water supply service to cover the whole area. Although the quality of presentation is poor, the study forms a useful package of information which can serve as a basis for managing and operating the schemes and for future development. The study includes detailed proposals for the pipelines to be constructed even though no comprehensive calculations of the functioning of the system has been carried out. Arrangements have been made for carrying out of these calculations by WASH with the support of USAID, but so far this has not been done.

The Mission considers it important that comprehensive and detailed calculations of the Makonde Plateau water distribution system are carried out as soon as possible. Detailed TOR acceptable to MAJI should be prepared taking into consideration that calculations together with the computer programme should remain with MAJI (Newala or Mtwara) and personnel trained to use it. If the work by WASH is delayed, short term consultancy through the Project should be considered.

The Rondo Plateau Study has been carried out in 1989 by the Project and a draft final report, date July, 1989, is available. It is a feasibility study of the rehabilitation of the existing Rondo Water Supply. The proposed rehabilitation includes improvement of the intake, pumping stations, distribution mains and service lines and construction of staff houses. It is estimated to cost TAS 45 million. This is equal to TAS 4,300 per capita which is rather high as a rehabilitation cost. The estimated annual O&M costs are TAS 620 per capita which also is high considering that the estimated per capita GPD was TAS 3,3033 in Lindi region in 1985. The income level in Rondo Plateau is, however, believed to be considerably higher. The study assumes that the costs can be met through community participation and proposes that the possibility to hand over the scheme to the beneficiaries should be explored. This has not been done even though it is quite crucial for the sustainability of the scheme. Based on the study the decision to rehabilitate the Rondo W/S has been made and materials for the work have been ordered.

The report "Rehabilitation Study of Water Supply Systems" has been prepared by the Project in early 1989. The report is a summary of the findings of a field survey carried out during October-December, 1988. Altogether 55 water supply schemes were surveyed and data of 69 schemes were analysed during the work. As a result, 23 first priority schemes and 46 second priority schemes have been proposed to be rehabilitated.

The following comments can be made on the rehabilitation study:

- The report says that priority selection has been based on sustainability and importance of the systems but shows no calculations of the O&M costs, and nothing has been mentioned of the importance of any individual scheme. Schemes with very high O&M costs, such as Chiwambo with 3 stages of pumping, have been included in the first priority category without any explanation.

- Community involvement has been included, quite rightly, in the rehabilitation programme . It seems, however, that the beneficiaries' participation has been taken as granted and has not been used as a selection criterion.

2.4.3 Point Source Supplies

2.4.3.1 Targets and Outputs

The physical improvements of point source supplies have in the project document been assumed to consist of new constructions and replacements of old handpumps by NIRA 85 pumps. The numerical targets according to the project budget are 150 new constructions and 350 replacements annually. According to the project document the following outputs are required before a point source supply can be considered as satisfactorily improved:

- strong community involvement,
- construction of new supplies as agreed (between the project and the community),
- establishment of an O&M system at each supply.

A summary based on the progress reports of the Project indicates that 112 new constructions of shallow wells and 350 handpump replacements have been carried out during the two year period of 1988 and 1989. In addition, a small number of borehole wells have been constructed. The respective targets are 300 new wells and 700 replacements.

The main reason for not reaching the targets has been the lack of local funds. The handpumps have been provided free of charge by the Project. In addition, a contribution of TAS 10,000 for a replacement and TAS 40,000 for a new construction is, on the average, required from central government, district or village funds. On the other hand, if the pace of physical improvements had been higher, it would have been difficult to carry out community involvement work satisfactorily. It is the opinion of the Mission that no numerical targets should be set for the remaining project period of Phase V. Community involvement should be a ensured before starting implementation.

2.4.3.2 Production Methods and Procedures

In the beginning of Phase V the procedure of producing a handpump well has been the following:

- request by village to DWE,
- prioritizing of requests by DC,
- survey by project surveyors and well site selection by surveyors and villagers together,
- establishment of Village Water Sub-committee (VWSC),
- meeting with construction foreman of the Project and the villagers to explain implementation and to agree on participation in digging, etc.,
- deposit of TAS 1,000 for tool set,
- implementation under the supervision of the construction foreman,
- transportation of pump from store to site by trained pump installer, flushing of well and installation of pump,
- selection and training of two well caretakers,
- signing of handing over agreement.

Since mid 1988 the responsibility for the production of point source supplies has been shifted to the DWEs and the Project has lost direct control of implementation. Survey and construction reports are, however, sent to the Project. Annually the overall situation of point source supplies is checked during follow-up safaris. Starting from October, 1988, also the procedures related to community involvement have changed from what is described above. A discussion of the new procedures is presented in chapter 2.7.

The Mission believes that more control by the Project is required. One possibility would be to carry out a final inspection of each supply with village, district and project representatives with systematized recording of all indicators of successful production of the outputs mentioned in the project document. Only after this inspection and mutual approval of the work the point source supply would be handed over by written agreement from DWE to the community.

Recommendation

13. Improve the control by the Project of achievements of outputs in the production of point source supplies.

2.4.3.3 Appropriateness of Used Technology

From the report of the annual follow-up safari of handpump wells in Mtwara and Lindi districts in November-December, 1989, the following conclusions can be drawn:

- Out of 970 visited wells only 212 were fully operative.
- 12% of the problems were related to inadequacy of water supply and 11% to structural inadequacies.
- In 15% of the wells the reason for poor operation was the wrong pump type, i.e. the old NIRA 76 which no longer could be effectively maintained.
- In 14% of wells (abadoned wells, missing pmps, broken new pumps) it can be assumed that the problems are at least partly related to inadequate community participation.

Data collected by the data engineers of Lindi region on the overall water supply situation shows that in June, 1989, there were 802 operating and 536 non-operating handpump wells in the region.

Review of the rather scanty water quality data published in the progress reports reveals that 15 to 30% of the examined samples have contained more than 10 faecal coliform bacteria in 100 ml, and there seems to be a tendency of this percentage to increase with time.

The Mission believes that the above presented statistics are a clear indication of weaknesses in the applied technology. Site investigation methods and standard drawings of hand dug, hand auger and borehole wells seem to be appropriate. It can not, however be verified whether they have been properly followed in practice.

It has been pointed out in the progress reports that dry or seasonally dry wells have often been constructed during the rainy season. Since the number of of new constructions is decreasing, there should not be any problems of availability of manpower or other resources even if all this work would be be undertaken during the dry season only. There is an overstock of NIRA 85 handpumps in the district and central stores. Thus, the most effective means to increase water supply is to use the limited local funds primarily for replacements.

Recommendations

14. Undertake new constructions of point source supplies in the dry season only. Ensure by training and by better control the followance of approved site investigation methods and standard drawings.

15. Give first priority to handpumpump replacements.

2.4.4 Piped Water Schemes

Based on the rehabilitation study, a programme for the rehabilitation of the 23 first priority schemes has been prepared . In addition, Mkunya-Makote W/S and Rondo W/S have been included in the rehabilitation programme. Materials have been ordered using funds allocated for the purpose in the project budget. Work is going on in a number of schemes but it is envisaged that not all rehabilitation work will be completed by the end of 1990. Community involvement has formed an integral part of the programme, and work for mobilizing the beneficiaries has been done in all schemes.

The normal procedure in the rehabilitation of the schemes would have been (i) study, (ii) decision by the district authorities on the schemes to be rehabilitated, (iii) design of the rehabilitation works, (iv) work plans, (v) ordering of materials and equipment, (vi) implementation. It is felt that short-cuts have been made in several points, particularly in the design. The project document also implies that the project preparation procedures of MAJI should have been followed. This has not been done.

It is noted that according to the project document, feasibility studies of the schemes to be rehabilitated should have been carried out. These studies were meant to contain e.g. checking of designs and calculations of O&M costs. No feasibility studies have been prepared.

In addition to the physical rehabilitation, the Project is supposed to ensure that each scheme will have an O&M system including trained operators and a system for spare parts delivery. The Mission believes that the already employed operators as well as the new ones would get effective training by participating fully in all stages of the rehabilitation.

Rehabilitation of Mkunya-Makote W/S which serves Newala town includes rehabilitation of the pumping system. The design and procurement have been provided through donor inputs and the actual implementation by MAJI. The work is expected to be completed in a few months' time. Considering the high cost and technical complexity of the equipment a thorough checking of electrical and mechanical installations and test runs of the system are required.

Recently, an idea to electrify the Kitangari W/S by extending the TANESCO line from Newala to Kitangari has bee brought up. This would bring benefits to the scheme in form of easier O&M, better capacity and more reliable energy supply. The Mission supports the electrification of Kitangari W/S, but the question is more complicated than just constructing the connecting line. Such aspects as synchronizing of the generator plant of Kitangari, future capacity requirements, electrification of the Makonde Plateau schemes, electricity tariff, financing of the connection, O&M costs before and after the electrification, changes in manpower needs, etc. should be studied. Also the possibility of forming an independently administered unit aiming at self-financong for the Kitangari W/S should be investigated. An outline of the terms of reference for the study on the electrification of Kitangari W/S is given in Annex 9.

Recommendations

16. Check the designs of rehabilitation works of piped schemes where works have not yet been started. Prepare a document containing a design brief with calculations, drawings showing possible changes of design and estimation of O&M costs for each scheme.

17. Arrange participation of operators of schemes in all stages of the rehabilitation work.

18. Arrange checking by an outside expert of electrical and mechanical installations of Mkunya-Makote W/S as well as the supervision of test runs of the system.

19. Carry out a study of all consequences of the electrification of the Kitangari W/S so that the eventual electrification can take place in 1990. Include investigation of possibilities of establishing an independently administred unit for the Kitangari W/S in the study.

2.5 Operation and Maintenance

2.5.1 Sector Objectives

The development objectives of this sector, as stated in the project document, are as follows:

- the devlopment of the local capability to adquately operate, maintain and repair the water supplies in each district through the active involvement and participation of the local community and suppliers as well as the specialist training of selected individuals to carry out appropriate regular preventive maintenance and repair activities,

- the development of the O&M procedures and systems to meet the local requirements.

The above objectives are basically right but they are vague and difficult to quantify. "Adequate capability" and "local requirements" are relatively broad statements and, therefore, it is difficult to judge whether the objectives are appropriate and whether the Project has achieved or will achieve them. It is also felt that at this stage it is unrealistic to expect that the local communities and suppliers would become capable of operating, maintaining and even repairing water supplies other than the most simple type of of handpump wells.

2.5.2 Community Operated Water Supplies

2.5.2.1 Point Source Water Supplies

The outputs required for the achievement of the objectives, as given in the project document, comprise sufficient trained staff, appropriate O&M procedures, manuals and management as well as reliable availability of spares, tools and consumables.

Successful production of the above output requires cooperation between the beneficiary communities and the Project and, thus, active community participation. During Phase V involvement of of the beneficiaries in the O&M has been emphasized and organized in a systematic manner. The new community participation approach is discussed in detail in chapter 2.7.

The training efforts of the Project have included training of village pump attendants selected by the communities for each handpump well and of handpump maintenance technicians for the seven districts and the two regions. The training seems to be satisfactory.

Towards the end of Phase IV procedures for shallow well operation and maintenance have been devoleped and described in the "Handpump Maintenance Handbook". These procedures provide for a three level system with the following components:

- village pump attendants under village leadership,
- district maintenance centre, district spare parts store and district maintenance technician under the DWE,
- regional centre, central spare part store , regional maintenence officer under the RWE.

In the handbook the responsibilities and performance targets of organizations, including the Village Water Sub-committees, and individuals involved in the O&M of handpump wells are described in detail. It should be noted that according to these procedures the ownership and full responsibility for the maintanance of a completed supply is handed over to the community by a contract signed by a representative of the community and the Project Coordinator.

The procedures seem appropriate and have been followed. However, the Mission has been informed that many of the established VWSCs have stopped functioning and have to be reactivated. Since October, 1989, the Project has adopted a new approach to community participation which is believed to lead to lasting activeness of new and reactivated VWSCs. This makes it necessary to review and revise the parts of O&M procedures dealing with the responsibilities of villages to take into account the new approach. Especially the establishment and use of village water funds for the O&M need attention.

It is the opinion of the Mission that in the present economical situation it is unlikely that MAJI will be able to provide the support, i.e. free spare parts, subsidized tools, transport support, etc. provided at present by the Project. Therefore, all these costs must be paid by the communities in the future from the village water funds.

A monitoring and supporting procedure of VWSC activities has to be developed in connection with the planning of the management information system so that remedial measures can be taken in good time whenever a VWSC becomes inactive.

The situation regarding O&M manuals seems to be satisfactory. In addition to the afore mentioned handbook the Mission has been able to confirm the availability of the following booklets and manuals:

- Booklet for Village Well Caretakers in Kiswahili,
- Maintenance Manual of NIRA AF-85 in Kiswahili
- Maintenance Manual of India Mark II in English.

Very few spare parts are required for the NIRA 85 pumps. Thus, problems of handpump spare parts will be solved after all old pumps have been replaced. At present the decentralized store system seems to be able to make spares available reasonably well.

Recommendation

20. Develop O&M procedures according to the new approach in community participation towards lasting active involvement of beneficiaries including responsibility for the O&M costs.

2.5.2.2 Piped Water Supplies

The operation of piped water supply schemes by the community is a rather new thing in the Mtwara-Lindi area and only some individual schemes, such as Dihimba W/S in Mtwara District and Simana in Lindi district are operated by the beneficiaries. The piped water supplies rehabilitation programme implemented by the Project (see chapter 2.4.2) includes the involvement of communities in both construction and O&M. For that purpose Village Water Sub-committees have been established, but other tasks have not yet been completed. The procedures how these schemes will be operated are being prepared, and the training of the operators is still to be done. It is envisaged that a fully functional system of village operated water supplies will not be in place at the end of 1990.

Although the willingness of the beneficiaries to participate and take over is reported to be high in all schemes at the present moment, there is no proof that the enthusiasm will be permanent. In the long run people's willingness to pay for the costs of water supply which used to be free may decrease, and therefore follow-up and support measures are required. The idea of cost recovery should be introduced in the very beginning of planning for a piped scheme. Funds thus collected should be channelled back to the procurement of spares and to cover other costs of the services given to the schemes.

Special attention should be paid to the status of thr operators. Arrangement where at least some part of their salary would come from MAJI would improve MAJI's possibilities to supervise the O&M.

Spare parts supply is not feasible to arrange at the village level. Also, the skills to carry out major maintenance and repairs are missing and are not available through local artisans.

Recommendations

21. Arrange follow-up of the O&M functions of the VWSCs at piped supplies and establish a back-up system to support the technical standard of O&M.

22. Supplement the training of piped scheme operators with participation in rehabilitation works.

23. Arrange spare parts supply and major maintenance and repairs through the district MAJI offices.

24. Arrange cost recovery of the normal running spares from the very beginning.

2.5.3 MAJI Operated Water Supplies

The Project has supported the operation and maintenance of MAJI operated water supplies through training, developing of procedures, systems and manuals and through provision of spare parts.

The training of operators (discussed in more detail in chapter 2.6) has consisted of on-the-job training, courses and seminars. The target to have trained operators in each MAJI operated scheme has not been reached since the training programme is still going on, but it is expected that by the end of 1990 practically all operators have gone through a basic training programme.

The Project is supposed to "develop individual O&M procedures for all piped schemes in the Project". Operation and maintenance manuals have been developed for the schemes constructed by the Project during the earlier phases. Most of them have, however, been prepared already during Phase IV. These manuals are useful reference files of the schemes containing information on the systems and equipment and giving instructions on how to operate, service and maintain them. But in addition to being written in English they are far too complicated for use as O&M manuals by the operators. At present these manuals are kept in the DWEs' offices and not at each water supply. Procedures for the O&M of piped water supplies have been also developed during operator training. In addition, a guide for the O&M of a diesel driven pumping scheme is being translated into Kiswahili. This guide is supposed to be applicable to most of the schemes and will be distributed to the operators and O&M staff of all schemes.

The Misssion feels that although the Project has done work in the field of developing O&M systems and manuals, little has been documented so far. Unless special attention will be given to this subject, it is envisaged that the targets will not be fulfilled.

The Project has, within the limits of the budget, provided spares for the piped schemes. This has functioned well and has been crucial for keeping the water supplies in operation. Although MAJI has been supposed to start to pay a part of the cost of spares, nothing has been reimbursed so far. This system of free and readily available spares has been very convenient but has, from the sustainability point of view, been counterproductive slowing down the efforts to improve normal spare parts procurement system of MAJI.

Recommendations

25. Document properly the developed O&M systems and procedures of MAJI operated W/S.

26. Develop procurement systems of spares and consumables through the normal local channels.

2.5.4 Quality of O&M Manuals

Each O&M manual is a compendium of engineering information about some particular installation. Normally a manual includes such data as pump curves, parts diagrams, operating instructions, maintenance instructions, etc. Each manual contains a a good table of contents, but the various sections are not "flagged" with section markers. So a diligent search is necessary to find specific information. The manuals have apparently been put together by engineers for other engineers. They are - for the most part - highly technical and would be of little help to most technicians or operators. At present they are mostly written in English.

Recommendation

27. Translate into Kiswahili vital O&M instructions and make them readily available to technicians and operators at the installation itself. Supplement them with drawings and assemble in a job-guide step-by-step manner.

2.6 Training and Manpower Development

2.6.1 Sector Objectives

As stated in the revised project document, December, 1988, the objective of this sector of the Project is:

"The development of relevant knowledge, skills and expertise within the staff of MAJI and other relevant groups in management planning, design, construction, operation and maintenance in the water supply field generally and in the piped water supply schemes particularly through the implementation of a comprehensive Training Programme."

To achieve this objective a series of 9 activities are spelled out in the project document (pages 9 and 13). Based on observations, interviews and careful study of the manpower development materials which have been prepared, it is concluded that substantial progress has been made toward the objective.

2.6.2 Achievement of Outputs

Annex 4 shows an estimated percent of accomplishment for each output and indicator listed on page 13 of the project document. The percentages were arrived at separately by the two RWEs and the Finnwater Project Coordinator as well as jointly by the Regional Water Engineer of Mtwara and the Project Coordinator.

The percentages themselves give a very favourable impression. However, on examination of the outputs and the indicators statements some of them are open to a wide range of interpretations. For example, the output "Sufficient personnel trained in O&M of piped schemes" is not measurable. It begs the question - Who will be the judge? Similarly, for the indicator "Trained pump repairers readily available in districts and active in maintenance" - Who will determine what "readily available" and "active" mean? Such vague terminology in the project document is not helpful to the implementors or the evaluators.

It is the opinion of the Mission that solid foundation work has been carried out during 1988-89. For example, the task analyses and skill analyses will serve as valuable references for trainers, managers/supervisors and trainees alike for years to come. Linkages have been established with Tanzanian institutions to conduct mangerial, technical and skill training. A good start has been made to develop a "pool" of instructors among waterworks personnel within the two regions, and work is progressing on the preparation of appropriate training materials.

While giving full recognition to the accomplishments in this sector of the Project and acknowledging that the manpower development is on the right track, it is also important to offer a few observations - in a constructive sense. These could be used for fine-tuning purposes in order to expand the benefits to be derived from investments in proposed future activities. The observations mentioned above appear on Annex 5 which is a summary tabulation of the Human Resources Development (HRD) Situation Analysis that outlines the strengths of the training and manpower development sector as well as opportunities for improvement.

The Situation Analysis provides the basis for recommendations about how to improve training and manpower development in Phase V. The recommendations are highlighted in the following paragraphs.

2.6.3 Management Training

The Mission wishes to emphasize this "opportunity" because of its make or break importance to the success of the Project.

The project document repeatedly highlights the importance of strengthening management within MAJI. Indeed, management is a key ingredient in every project. The success or failure of the project will essntially be determined by how well managers/supervisors perform their multiplicity of functions. Thus, it is imperative that managers/ supervisors are groomed to deal with real-life problems they must face on a day-to-day basis.

During a force-field analysis session with 18 senior managers/ supervisors in Mtwara on 25 January they identified the problems shown in Column 1 of Annex 6 as the severest constraints to achieving project targets. Column 2 of the same Annex shows those identified by 19 top managers/supervisors in Lindi on 1 February, 1990. In management training, just as in skill or technical training, a distinction is called for between "need-to-know" and "nice-to-know". It is clear from the tabulation in Annex 6 that the managers/supervisors of the Project "need-to-know" - as an <u>immediate</u> priority - how to deal with the problems shown in Columns 1 and 2. The topics shown in Column 3 do not appear to be of high priority.

<u>Recommendation</u>

28. Utilize the list of real-life problems identified through the group force-field analysis done in each region to design relevant training for upper level project staff (Tanzanian and Finnish) so that they will aquire necessary mangement skills and tools to cope with these constraints.

2.6.4 Evaluation System

The sector objective calls for the development of "relevant knowledge, skills and expertise". Unfortunately, the project document does not list an evaluation system among the components on page 13. Without such a system it is unlikely that quality evidence will be obtained to prove that training has been relevant and that the knowledge, skills and expertise have been developed. The evaluation system must pay special attention to an in-depth appraisal of on-the-job performance.

Recommendation

29. Establish and utilize a training evaluation system which includes follow-up on the job to determine if the new found knowledge and skills are being applied.

2.6.5 Performance-oriented Training Materials

The thrust of the investment in training and manpower development is to improve on-the-job performance of individual workers and thus to contribute to the improved performance of the Project.

In order to do this one must start with well written performance objectives in the training materials. A performance objective is a very precise statement of exactly what the trainee is expected to do as a result of the training. An easy way to write a performance objective is to answer the question: What observable behaviour do you require of the trainee in order to prove that he has learned the task or subtask?

Recommendations

30. Provide examples of performance objective statements and special coaching to instructors and developers of training material.

31. Provide collaborating instituitons with a detailed training module format (see sample attached, Annex 7) so that a quality standard is established for training materials to be prepared by others.

2.6.6 Government of Tanzania Policies

Managers/supervisors in MAJI are guided by the following procedures, rules and regulations:

- Standing Orders for the Public Service (July, 1971). They deal with such personnel functions as employment, promotions, transfers, retirement, leave, examinations, allowances, etc.

- Security of Employment Act (1964). The act lays down the procedures for the settling of disputes between workers and management.

- Schemes of Service. These are generally designed to discourage haphasard recruitment and promotion. They provide avenues for career development and successful planning and enable performance appraisal to be conducted on a rational basis.

Sera ya MAJI 1988 (The Water Policy). The new water policy provides manning ratios and manpower targets.

The preceding documents impact on all three components of the HRD process, viz. planning, training and management. They are essential references for anyone involved in manpower development.

Recommendation

32. Obtain copies of the above mentioned documents which impact on training and manpower development so that the Training Officer and Training Coordinators can thoroughly familiarize themselves with the regulations which influence their work and the people they train.

2.6.7 Evaluation of Training Requirements

When planning and designing training events/programmes to upgrade or update existing staff, in-depth knowledge is needed about their performance deficiencies and/or skill inadequacies. Such data are fundamental for planning and designing relevant training.

During the mission it was learned that at least three civil engineers from the regions are applying to enter a master's programme for water supply abroad. No one seemed to challenge whether this type of education was needed by the individuals to do their jobs better or whether it satisfied particular needs within the regions. However, the force-field anlyses that were done, clearly show that there are many other priority training requirements for engineers in managerial/ supervisory positions. It seems evident that to invest the time and money in providing a master's degree to a civil engineer from Mtwara or Lindi would not improve his ability to cope with the real-life problems of his job. It would, however, benefit him as individual by enhanching his marketability. Indeed, such training appears to be contrary to the manpower training and development policy in Tanzania. In part, the policy was written to ensure that overseas training is relevant to the needs of the country.

Recommendation

33. Ensure that training/education of personnel satisfies both the needs of the organization and the needs of the individual in keeping with the Government policy.

2.6.8 Study Tours

During October, November and December of 1989, the Project Coordinator and selected personnel associated with the Project made a series of study tours of other donor assisted water supply projects. A brief report was made about each visit.

Recommendation

34. Summarize the features and/or activities of other projects which could serve as models for future work in Mtwara-Lindi project.

2.6.9 Special Considerations

The TOR of the Mission ask that special consideration be given to six specific aspects. These and the responses of the Mission are the following:

(i) Have the manpower recruitment and development policies of MAJI been taken into account properly?

The Training Adviser and the two regional Training Coordinators need to become intimately familiar with the government and MAJI policies touching on training and manpower development (see recommendation 32, chapter 2.6.6).

(ii) Is the training needs assesment realistic compared to the recruitment policies and the capabilities of the manpower?

Yes.

(iii) Are the training materials and methods appropriate taking into account the level of trainees and skill development needs?

See recommendation 30, chapter 2.6.5. concerning materials. As to methods, there appears to be an adequate blend.

(iv) Has the Tanzanian educational system been taken into account properly?

Yes.

(v) Have the Tanzanian training institutions been satisfactorily involved in the preparation and implementation of the training programmes?

Yes.

(vi) Is the developed training system replicable and sustainable?

The sector objective stated in the phase V project document does not call for the development of a replicable and sustainable training system. The document lists a series of activities which provide some of the elements necessary for a training system, but other elements are required to make it sustainable. Certainly a training needs assesment, a training plan, qualified instructors training materials and suitable training facilities are some of the elements in a Training Delivery System (TDS). Other essential elements are shown on the attached HRD Check List (Annex 8). The "glue" that holds the TDS together and makes it function is a commitment by government to sustain it through financial support as well as assigning a full-time person experienced in manpower development to manage it.

Some of the necessary additional elements are highlighted in the recommendations for Phase V and others will be discussed further under the recommendations for Phase VI.

2.6.10 Training and Manpower Development during Phase VI

It is the opinion of the Mission that this sector of the Project is a FINNIDA activity, not a joint one. Tanzanian staff members of the Project provide inputs (their time), they particpate and benefit, but they see that the activity is financed and "driven" by FINNIDA. They seem to be willing participants as long as someone else is paying the bill. No feeling of "ownership" for this sector was detected in MAJI.

The fact that MAJI is not investing its own funds in the Project's training and manpower development activities is a negative indicator regarding sustainability of this sector. Additionally, the fact that the part-time Training Coordinators for each region are preparing to leave for graduate studies does not bode well for the sustainability of this sector.

The Phase V training and manpower development sector activities have laid a good foundation. It seems only logical to consolidate the gains made and build-in the additional elements necessary to establish a sustainable delivery system in accordance with the following recommendations, for example:

Recommendations

35. Elaborate an objective for the training and manpower development sector in Phase VI that includes the establishment of a sustainable training delivery system.

36. Prepare a cost-sharing (Tanzania-FINNIDA) formula for the sector. If eventually the sector is to be 100% sustained financially by MAJI, this should be reflected in the formula.

37. Continue with the development of performance-oriented training materials.

38. Concentrate on equipping managers/supervisors with the management skills and tools to deal more effectively with their non-technical problems.

39. Continue with priority skills and technical training.

40. Initiate remedial classes in English for technicians.

2.7 Community Involvement

2.7.1 Sector Objectives, Targets and Outputs

The sector objectives, as stated in the project document for Phase V, are:

- The active involvement of local communities in all stages of planning, design, construction, operation and maintenance as well as extension or rehabilitation of their water supplies.
- The ensuring of the continuity and extension of water supplies through development of community based operation and maintenance system and training in preventive maintenance.

- The encouragement and development of economic activities to enable the communities to carry the costs of improved water supplies.

- The development of public health education in order to stimulate public health benefits in the local communities served.

The first two objectives are appropriate and their achievement crucial for the success of the Project. Because the financial support from government agencies for the physical improvement and O&M of water supply has been very inadequate and is not likely to increase rapidly, the only possibility to ensure the continuity of water supplies is to induce the beneficiaries to take the responsibility for the management of the point source supplies and partly also for the piped water schemes. This responsibility must include raising of funds from the villages to pay for the O&M and for that part of construction and rehabilitation which is not covered by the support from the Project or from MAJI or district funds.

The objective of development of economic activities is unrealistic for the time being when the mere organization of villages has only started.

The health education objective is relevant. Its achievement should, however, mainly be the responsibility of AFYA.

Much work has been done by the Project already in Phase IV to involve the communities in the different stages of the development of point source supplies. In the case of piped schemes community participation has been less common as explained in chapter 2.5.2.2. On the basis of experiences the "Integrated Working Approach in Community Participation, Mtwara-Lindi Rural Water Supply Programme" has been developed in November, 1987. Until October, 1988, community participation activities have suffered because of delay in the recruitment of the two new Community Participation Development Officers. Thereafter a new working approach has been developed and is now in use.

The outputs required for the achievement of the objectives, as presented on page 14 of the project document, are vague and it is mostly impossible to verify their achievemnet by checking the existence of equally vague indicators. Furthermore, no data collection of even the few measurable indicators, such as frequency of the use of a supply, participation in health education, provision of candidates for training etc. has been organized. The only indicators about which there are quantitative data available are the numbers of VWSCs and water funds. A summary of these data is presented in Table 2.7.(i).

Considering the total number of villages, approximately 900, it is not probable that all necessary Village Water Sub-committees will be formed and active by the end of 1990.

Table 2.7.(i). Village Water Sub-committees Established in Phase V according to Progress Reports.

Time Period	No. of VWSCs	No. of Water Funds
Jan - Jun, 1988	50	-
Jul, 1988 - Jun, 1989	206	18
End of 1989, total existing	300	106

Recommendation

41. Reformulate outputs and indicators in community involvement to make them quantitative and more accurate.

2.7.2 Concept and Working Approach in Community Participation

A study carried out by the Community Participation Development Officers in October-December, 1988, indicated that the previous efforts had failed and there was a lack of community participation. The Mission has been informed that the reasons for the failure have been the following:

- ignorance of the beneficiaries on the importance of their involvement,
- selection of village water committee members by the project personnel,
- shortness of the period during which the approch was applied in practice,
- delay in the introducing the strategy in the Project,
- community involvement was attempted at the final stages of the development of supplies, i.e. in the operation and maintenance phase.

If these reasons are compared with the principles presented in the Integrated Approach of Community Involvement, it is evident that some of the principles must have been misunderstood and misapplied.

According to the new "Concept and Working Approach in Community Participation", written after the afore mentioned study and applied at present in practical work, the main principles in the community involvement by mass campaign are:

- Leaders from MAENDELEO, AFYA, ELIMU, MAJI, CCM, UWT, District Councils and other agencies in the field of rural development at regional, district, divisional and ward levels are trained in mobilization skills. In turn the leaders are expected to mobilize the villagers in all aspects of participation including formation of VWSCs and water funds.

- Village government leaders, CCM and UWT leaders in the villages are trained through visits to villages.

- Extension training, i.e. inter-department training in community participation methods is given by lectures, discussions and

audio-visual presentations in connection with various training courses for other sections of the Project.

It was reported to the Mission that 1239 executives at district, divisional and village level have been trained through courses the total duration of which has been 108 days.

It is difficult to verify these figures from the data presented in the progress reports. On the basis of observations during field visits the Mission believes that much awareness of the importance of community participation has been created among the beneficiaries and the project personnel by this training.

For the time being the new approach is tested in seven pilot areas, one in each district. This is advisable because the Project can hardly afford another failure in this field. But the full benefits from the "trial and error" method advocated by the initiators of the new approach can not be gained unless a thorough and well implemented follow-up system is developed for the activities and results in the pilot areas. Attention should be given in the pilot work also to organizational aspects, f.g. to collaboration with MAENDELEO, AFYA and other relevant organizations so that a sustainable organizational set-up could be planned on the basis of experiences.

Financing of activities should be studied to provide sustainability for the community participation promotion independently from donor inputs.

Recommendation

42. Establish a procedure for the follow-up of community participation in the pilot areas with collection of relevant quantitative data. Revise the working approach and plan a sustainable organizational set-up and financing system for continuing community participation promotion before proceeding to other areas.

2.7.3 Role of Communities in the Development and Management of Point Source Supplies

It is believed that in order to achieve good community participation and to avoid later neglect and irresponsible use of the W/S, the beneficiaries must first become aware of the need of an improved water supply and themselves initiate the development. The awareness, which earlier was supposed to come from health education, is now created by information and education by the trained leaders. The initiation is done by submitting a request to the district authorities through the Ward Development Committee. The District Development Committee scrutinizes and prioritizes the requests. Up to now it has been the responsibility of district authorities to arrange the financing of the local component through the Ministry of Local Government or from district funds. Since these funds have lately been so scarce that the planned use of the donor component has been slowed down, a more active role of the beneficiaries in the financing of the local component is necessary if the development is to continue. To make this possible, village water funds are necessary.

After the integration of the Project into MAJI organizations the districts have been in charge of the development of point source supplies. The district MAJI personnel is responsible for arranging an opportunity to the villagers to participate in all stages of the development of their water supply. They are responsible for checking that a Village Water Sub-committee has been formed and a Village Water Fund established before starting implementation. Furthermore, they must involve the villagers in such activities as well-site selection, planning of facilities, construction of the well, etc. It would also be often advisable to make use of the experiences and observations of villagers, particularly of elderly people, when information of yields, for instance, is uncertain.

Also, a sufficient number of suitable candidates to be trained as village pump attendants by the Project must be selected by the villagers. Furthermore, a deposit of TAS 1,000 for O&M tools of the pump is required, partly as a token of the seriousness of intention of the villagers.

At present all responsibility for the quality of construction work is left to the DWE's staff, mainly to the construction foremen. The Mission believes that joint control by representatives of the community, the district and the Project, as described in chapter 2.4.3.2 is necessary. It can be expected that the problems of low yield or poor water quality will become even less tolerable than they are now when the beneficiaries start paying for the supplies.

According to the old integrated approach, making signed agreements before the implementation and at the handing over of water supplies has been a part of the procedure. The Mission has been informed that in the new approach, making formal agreements is not considered as a first priority issue in the present situation.

It is the opinion of the Mission - and this opinion has been supported by regional MAJI personnel - that formal agreements are important. One should be made before starting the implementation to document the responsibilities of all parties. As far as the communities are concerned these responsibilities would include participation in practical work, selection of trainee candidates, housing of foremen, etc. It would be advisable to record the dates of the establishment of the VWSC and the water fund in the agreement as well as the acceptance of the type and location of the water source.

After the final inspection and approval, a handing-over agreement should be signed, preferably ceremoniously, to emphasize the transfer of responsibility to the community. For the same reason and for the sake of uniformity, it is desirable that MAJI would develop standard agreement forms to be used in all Projects.

After handing over the community will be responsible for the O&M of the supply. The aspects of O&M of point source supplies, including the role of communities , is discussed in chapter 2.5.2.1.

Recommendation

43. Develop a procedure for making agreements on standard forms to clearly define the responsibilities of communities during the implementation and after the handing over of point source supplies.

2.7.4 Role of Communities in the Development of Piped Water Supplies

As explained in chapter 2.5.1.2 the role of communities in the operation and maintenance of piped water supplies is increasing in importance, and procedures are being prepared for community based activities. The role of communities in the development of piped schemes is similar to their role in the development of point source supplies.

2.7.5 Organization and Financing of Community Participation Promotion

The progress of community participation promotion is at present strongly dependent on the activities of the two Community Participation Development Officers. One of them is seconded from MAJI, the other employed by the Project both being directly subordinated to the Project Coordinator. The sustainability of the activities, being to a great extent dependent on temporariy employments, is not very well established although the involvement and training of permanent personnel of MAENDELEO, AFYA and other organization do provide a foundation for continuity. As soon as possible a permanent organization for community participation promotion should be planned on the basis of experiences in the pilot areas as stated in recommendation 42 in chapter 2.7.2

There seems to be a lack of coordination between the community participation activities and the budget. The project document has not made any budgetary provisions for community participation. The activities so far have been financed from the funds reserved for training. In Phase V the costs of community participation promotion activities are estimated to be about TAS 680,000 which is about 2% of the FINNIDA training budget. In the future, allocation of funds to the community participation should be separately considered and the total dependence on donor funds avoided.

2.7.6 Special Considerations

The TOR of the Mission ask special considaration to be given to five specific aspects of community involvement. These and the views of the Mission are given below.

- What is the realistic level of community involvement in the operation, maintenance and management of water supplies in the long run taken into account the existing situation and resources avilable? Are the plans regarding the development of community involvement realistic and leading towards the development objective of the sector?

  The Mission believes that the communities are both technically and financially capable to manage, operate and maintain handpump wells with NIRA AF 85 pumps provided that training and occasional

advisory support is provided by the Project. The replacement of an old pump costing TAS 10,000 is within the limits of ability to pay of most communities.

The maintenance of old pumps requires support from the district technicians, but the need of this support will cease after all old pumps have been replaced.

Regarding the community involvement aspects of piped water supplies reference is made to chapter 2.5.2.2.

The schedule of activities in the Work Plan 1990 includes only training and evaluation activities in the community participation. These training plans are realistic and will help in the achievement of objectives. Actual involvement of communities in the pilot areas is going on although this is not recorded in the Work Plan. Information on achievements is not available yet.

- Is the organizational set-up in the community involvement appropriate and effective? How should the organizational set-up be developed in order to achieve long-term sustainability?

The organizational set-up is unsatisfactory. A sustainable set-up should be developed in coordination with other organizations (see recommendation 42 in chapter 2.7.2.

- What should be the supportive role of different authorities and organizations?

During the remaining period of Phase V the Project should continue the support to the mobilization training as before. Later the responsibility for this support should be gradually transferred to the districts subsidized by the Ministry of Local Government, if necessary.

The responsibility of local MAJI organizations is to run a follow-up system of community participation activities and to initiate remedial measures if necessary. They shall also support the O&M activities of communities by purchasing and storing spare parts so that they will be easily available to the VWSCs. The costs of keeping regional and distric stores shall be born by MAJI. The spares will be provided free of charge by the Project during Phase V, but preparations shall be made for gradual tranfer of responsibility for the costs to MAJI organizations.

Strong support from MAENDELEO, AFYA and other organizations is required to make the community participation system sustainable..

- Has the health education supported by the project been successful?

There are no indications of health education supported by the Project in the progress reports or the Work Plan for 1990. However, in the field of sanitation - the incresed demand of

which is given as one indicator of successful health education in the project document - progress has been reported. The Mission was informed that after the reduction of the latrine price to TAS 450 by substitution of the concrete slab with a slab made of special wood the demand for family latrines has increased considerably. Because the delivery of the materials already paid for by the recipients has been slow due to lack of transport, the interest has begun to decrease. This is regrettable since much effort has been spent on the development of sanitation by the Project over a long period of time. There has been a state of indecision concerning the support organization of sanitation the responsibilty having been shifted to RIPS and back to MAJI. This may be one reason for the general lack of interest in the sanitation activities among the Project personnel, MAJI and expatriate alike.

Recommendation

44. Define the strategy and required outputs for sanitation for the remaining period of Phase V. Provide necessary support to the Sanitation Coordinators so that the outputs can be produced.

- Has the cost-recovery system been established effectively, how should it be developed further?

The only activity towards the establishing of a cost recovery system has been the founding of 106 Village Water Funds by the end of 1989. The planning must recognize the national Water Policy. The required size of village water funds for different types of supplies should be estimated and direct payment methods for work, for example to pump attendants and operators, as well as reimbursment methods of spare parts to MAJI planned. Special attention should be given to the cost-sharing ability and need of support of the poorest districts.

2.8 Inputs

2.8.1 Inputs of the Government of Tanzania

According to the project document the Government of Tanzania is responsible for supplying the following inputs:

- Funds, manpower, material and supplies for the implementation, rehabilitation and normal O&M of water supplies except for the support provided by the Government of Finland.

- Adequate number of permanently employed staff to work together and to be trained by the expatriate advisers, staff to operate the Kitangari power plant and pumping station and staff for electrical works and seismic surveys. Also, adequate number of local trainers is to be provided.

- Costs for spare parts of all types of W/S and for MAJI's machinery, equipment and vehicles are to be covered by the MAJI, local authorities ar the villagers if not covered by the support from GOF.

- Reimbursement of part of the costs of equipment, spare parts, material and transport services in the fiscal years 89/90 and 90/91. The total amount, as indicated in the project budget is FIM 0.6 (appr. TAS 30 million).

None of the above inputs have been included in the project budget covering the contribution of GOT. Funds for them are supposed to be provided through the Ministry of Water and other ministries and local authorities. The villagers themselves are supposed to contribute to the payment of the O&M of their water supplies.

Except for the manpower input and for the payment of maintenance of MAJI equipment and vehicles the inputs have been inadequately supplied. They may have been realistic from the point of view of achieving the project objectives, but they are unrealistic from the point of view of the financial capacities of GOT. If supplied as planned they would have used an unproportionate share of all fund allocated to the water sector.

The contributions of GOT included in the project budget consist of salaries, allowances during training and miscellaneous office costs totalling TAS 37.1 million in the three year project period. Only a part of this input has been supplies as explained in Chapter 2.11.

Recommendations

45. Prepare realistic cost estimates separately for the contributions required from donor, ministries, districts and communities. Inform the central government and district authorities about the requirement of funds to enable it to be taken into account in the respective budgets.

46. Adjust action plans according to available local funds.

2.8.2 Inputs of the Government of Finland

These inputs consist of provision of advisory services, equipment, materials and training.

The project document gives a schedule of expatriate advisory services comprising approximately 350 manmonths at the project site and 42 manmonths in the Consultant's home office. Because of the late start of the project, approximately 50 manmonths have been lost. As a whole, the advisory services have been satisfactorily supplied. According to the schedule, the post of the Training Adviser will expire in early 1990. Considering the recommendations given in chapter 2.6 the Mission believes that the post should be extended to the end of Phase V.

The equipment specified in the project document have been well supplied and materials have been satisfactorily supplied. However, the procurement schedule of handpumps should have been revised after slowing down of the installation programme to avoid overstocking the handpump stores.

The project document provides funds for training materials, courses, travel expenses and unspecified trainig costs. Also the costs of the

sanitation and health education components are, according to the project document, to be paid from the training funds. This input has been adequate to cover the costs of community promotion in addition to the costs of the implementation of training programmes.

The effective use of the both the donor inputs and the manpower inputs of GOT has suffered from the imbalance of the allocation of donor and local inputs. To rectify the imbalance at least temporarily, the Project has financed a part of the component which is included in the project budget as contribution of GOT. Invoices have been presented for this payment to MAJI afterwards. The Mission was informed that unpaid invoices now amout to TAS 9,478,834. The main target of Phase V has been to create a sustainable water supply system in the Mtwara and Lindi regions. The "topping- up" of local component is likely to increase the dependence of the system on foreing aid. Thus it can not be accepted except for small amounts in exceptional situations when the back-payment is guaranteed.

Recommendations

47. Retain the post of Training Adviser until the end of Phase V.

48. Avoid "topping-up" of local component.

2.9 Institutional Arrangements

2.9.1 Project Organization

The project document (page 15) states that at the end of Phase V no parallel organizations shall exist. The chart of internal project organiztion on page 32, however depicts a totally parallel organization with advisers subordinated to the expatriate Project Coordinator and the MAJI employed project staff working under the RWEs. In reality the parallelism has been less pronounced. All advisers have worked closly together with their counterparts, often sharing the same office, and frequent meetings of project staff have been held. This has at least ensured distribution of information, but obviously still left authorities and lines of reporting of individual staff members unclear. As a result, complaints were presented to the Mission about RWEs having too little influence on the activities of the advisers. Also, in procurement activities the Tanzanian personnel have sometimes found their estimating activities frustrating, since final decisions are made by the expatriates alone.

Recommendations

49. Replan the internal project organization and eliminate parallelism. Give accurate descriptions of the duties and lines of reporting of each person.

2.9.2 Performance and Relationships of Project Personnel

The Mission recognizes that the nature of the Project has changed from essentially a technical one to one that calls for a balance of technical and non-technical work. It has been concluded that on the technical side, the performance of the project personnel is adequate -

an exception is the data collection. On the non-technical side - e.g. institution building - project personnel and management have been less active. To be more specific, performance indicators and well written procedures are required in all sectors of the Project so that "how to do it" is well known and documented and accomplishments can be reasured. Unfortunately, written procedures and performance indicators in the various sectors have received very little attention.

During the very limited time-frame of this mission the team observed a harmonious relationship between Tanzanian and Finnish project personnel. Second-hand information alerted the team to one or two personality conflicts that have occurred, but these were not apparent during the visit.

2.9.3 Committees

In the project document formation of the following committees has been requested:

- The Steering Committee for water supply development of Mtwara and Lindi regions to be the central institution for monitoring and evaluation at the regional level. The Steering Committee has the power to recommend actions, changes in procedures and deference of decisions to appropriate authorities. It is supposed to meet twice a year. Members include representatives of the Ministry of Water, FINNIDA, regional authorities, other donor agencies, MAENDELEO and the Project Coordinator.

- The Advisory Committee to strengthen the monitoring of the Project and to approve the major designs and other relevant documents. It is supposed to meet at least quarterly to comment the progress of the previous quarter and to approve the plans for the following quarter. The members are to include, but not be limited to, the representatives of MAJI and FINNIDA, the RWEs and the Project Coordinator.

- The Regional Coordination Committees consisting of the RWE, the Regional Planning Officer and the Project Coordinator and meeting once a month and jointly for bothe regions when necessary.

The activities of the Steering Committee seem to have been reasonably in accordance with the requirements of the project document as far as can be judged on the basis of minutes of meetings made available to the Mission.

It is the opinion of the Mission that the intended role of the Advisory Committee is a very important and central one for the appropriate guidance and control of project activities. This role has not been understood. In discussions with the project personnel it was confused with the Steering Committee. The performance of the Advisory Committee in approving plans and programmes is discussed in Chapter 2.3.2.1. As a substitute to approval by the Advisory Committee plans, designs and programmes have been sent to MAJI and FINNIDA for approval. It is the opinion of the Mission that the Project would get more feedback on its progress and plans if they were discussed in a active and competent Advisory Committee.

The monthly meetings of the Regional Coordination Committees have had a less important mostly informative character and could probably be substituted with exchange of reports and other relevant documents.

Recommendation

50. Reconsider the role and composition of the Advisory Committee to make it an active and competent body to monitor the progress and to approve the plans of the Project.

2.9.4 Coordination with Other Organizations

According to the project document the Project is requested to work in close cooperation with the local MAJI organizations, MAJI headquarters and other donor organizations in the area. The Mission believes that the cooperation has been good. Arrangements have been made of cooperation with WASH and USAID in the the planning of the Makonde Plateau W/S. Senior managers of the Project have visited water supply projects of other donors in other regions.

Question of coordination with the FINNIDA funded Rural Integrated Project Support (RIPS) active in the Mtwara and Lindi regions has been given special consideration by the Mission and discussed with representatives of RIPS in Mtwara. The conclusion is that no special adminstrative advantages would be gained by joining the water project with RIPS since all projects under the umbrella of the RIPS still work as separate projects. Considering the phase differences between the projects under RIPS, which have only recently been started, and the water project which is old and well settled, it could be difficult to reconcile their different needs. The opinion of the Mission was shared with the Project Manager of RIPS in Mtwara. Coordination between RIPS and the water project is, however, necessary and inclusion of a representative of RIPS in the Steering Committee is advisable.

Recommendation

51. Keep the Mtwara-Lindi Rural Water Supply Project independent but ensure coordination with RIPS by inviting a representative of RIPS to the Steering Committee.

2.10 Monitoring and Reporting

2.10.1 Monitoring

According to the project document the overall monitoring of the Project is supposed to be carried out by the Advisory Committee. The Advisory Committee is supposed to meet quarterly. This has not been the case as explained in earlier chapters. It is conceivable that the weaknesses in instituiton building and the imbalance in funding (local and foreign) could have been dealt with earlier if appropriate monitoring had been carried out and attention of authorities had been drawn to these aspects as soon as they were observed.

Also the Steering Committee is responsible for the monitoring and evaluation of the water development at the regional level. After a slow start this committee is now meeting regularly.

Recommendation

52. Define the roles of committees in the monitoring of the Project clearly. Specify scope and methods of monitoring.

2.10.2 Reporting

The regular reporting system of the Project includes Quarterly Progress Reports and Annual Reports which follow th Tanzanian fiscal year. In 1988 semi-annual reports have been prepared instead of annual reports. The present regular reporting system is reasonably clear and the reports condenced and easy to read. However, the contents do not follow the contents of the project document making it difficult to define to what extent the targets, outputs and indicators in each component of the Project have been achieved. Some components are totally missing, for example, the follow-up under Institution Building. The reports are supposed to be prepared jointly by the Consultant and the local MAJI personnel, but it appears that when it comes to the actual compiling, the adviser do the bulk of the work.

Recommendation

53. Revise the contents of the reports to follow more closely the project document to enable easier verification of the progress in relation to the required outputs and indicators.

2.11 Costs and Financing

Phase V of the Project is being financed by the Government of Finland and the Government of Tanzania. The estimated budgets presented in the project document are FIM 45.0 million and TAS 37.1 million, respectively. The budget situation for 1988 and 1989 is shown in Table 2.11.(i). It should be pointed out that at the end of 1989 invoices worth TAS 9,478,834 for the "topping-up" of the local component with donor money had not been paid by MAJI.

There is a wide variation between the budget figures in the project document and those used in the preparation of the project plans. For example, in 1989 a balance of about FIM 1.7 million is unaccounted for. While the project document had earmarked FIM 17.0 million, the Consultant had FIM 18.6 million as the budget figure for 1989. The difference in the figures is explained by the transfer of savings made in 1988 to the funds allocated for 1989. Originally, the transferred sum was FIM 1989.2,658,000. Later a miscalculation in FINNIDA accounts was observed and the final allocation for 1989 was revised to FIM 17,658,000. The figures have been arrived at in a meeting between FINNIDA and the Consultant. The annual budgets have been approved by the Steering Committee.

Table 2.11.(i) Foreign Component of Project Budget in 1988-1989.

Item	1988 Allocation	1988 Expend.	1989 Allocation	1989 Expend.
Investment costs	1,833,000	1,321,463	3,709,000	6,071,627
Recurrent costs	2,454,000	2,460,604	4,904,000	5,146,602
Tech. assistance	9,252,000	5,921,449	7,215,000	4,957,550
Training	228,000	99,681	630,000	580,050
Supervision	173,000	-	200,000	15,845
Unspecified	-	1,182,331	2,000,000	108
Total	13,940,000	10,985,528	18,658,000	16,771,782

The Mission has found the budget reporting system confusing for the following reasons:

- The breakdown of the budget components is too general combining various items together.

- The items and numbers used by the Consultant are different from those in the project document making it difficult to follow the trend of events item by item.

- Detailed auditing of the project budget is done in Helsinki and not made easily available for monitoring of the budget frame.

- There is a lack of coordination between the local and the foreign components. Expenditures are incurred before the actual local component release is made.

For the above reasons the Mission believes that the budgeting system in use is not appropriate and its weaknesses should be eliminated.

Recommendation

54. Adhere to the items presented in the project document in budget reports. Coordinate allocations of local and foreign components.

In a number of years the Government of Tanzania has failed to meet its financial obligations to provide adequate local funds and match the foreign component. Reasons for this include the adverse economic situation facing the country. This financial situation is a national problem and it will take several years before a solution is found.

With the District Councils failing to raise development levy, reallocation of the little money reserved for the water sector to other needy sectors is a normal practice. A typical case of the situation in the districts is shown in Table 2.11.(ii).
The budget situation is alarming with 90% of funds earmarked for recurrent costs of the water sector being reallocated to other issues.

The participation of the communities in the costs also is for the time being not encouraging but is expected to improve as a result of the new working approach in this field.

Recommendations

55. Place the funds of the water sector in the districts strictly under the control of the District Water Engineers.

56. Increase efforts for beneficiaries' participation.

2.12 Environmental Aspects

No adverse impact on the environment can be foreseen as a result from the project activities.

3. SUMMARY OF FINDINGS AND RECOMMENDATIONS

OBJECTIVES AND STRATEGY

Findings

The objectives and strategy are appropriate. Because of financial constraints in local funding they need to be revised for the remaining period of Phase V and thereafter. The strategies for integration and institution building have not been fully followed.

Recommendation

1. Direct the limited resources to the achievement of objectives related to reliability of operation and sustainability of water supplies.

INSTITUTION BUILDING

Findings

Planning methods and capabilities of MAJI personnel in their use have been developed by preparing plans in cooperation with the advisers and the local staff. Work plannig methods and follow-up systems of local funding and quality control of construction need improvement. The developed planning and follow-up procedures are not adequately documented. Data is not readily available for planning and evaluation purposes.

Transport is adequately provided, but the control of vehicle use needs improvement. Store and workshop facilities are satifactory. Management procedures for stores and workshopshave been developed and are in use but are not properly documented. Additional training of staff is needed.

Recommendations

2. Emphasize strengthening of the management capabilities of local MAJI organizations during the remaining time period of Phase V and thereafter.

3. Improve planning methods, make plans more detailed and include

activities of local MAJI organizations. Describe developed planning methods in manuals.

4. Revise the method of approval of plans and programmes.

5. Revise the existing follow-up systems of financing, cost control and O&M. Describe the new systems in manuals and start training of district and regional MAJI personnel in their use.

6. Develop a management information system, which will use computerized data processing, before the end of Phase V.

7. Make new regulations including payments for the use of vehicles, submit them for approval to the Advisory Committee and start following them after approval.

8. Complete the integration of the vehicle spare parts store in Mtwara region as soon as possible.

9. Document store management and storekeeping procedures.

10. Improve the capability of staff to estimate spare parts and materials demand by training and by combining the estimation activity with other planning and by providing access to data from previous months and years through effective data system.

11. Intensify training of workshop and garage personnel at all levels to improve the overall management and to increase confidence of personnel in their own capabilities.

12. Prepare manuals describing te management and working methods of workshops and garages and use them as training materials and as instructions in the daily work.

PHYSICAL IMPROVEMENTS TO INCREASE WATER SUPPLY

Findings

The numerical targets set for the production of handpump wells have not been achieved. This is of secondary importance compared with the high number of non-operating existing handpump wells. Production procedures and methods are appropriate, but their followance is not adequately controlled. Intensified community involvement is required for improvement of reliability of supplies.

Studies for piped schemes have been carried out according to the requirements of the project document except for the feasibility studies of rehabilitations. Short cuts have been taken in the design and implementation of piped schemes and the sandard MAJI procedures have not been observed. A study of the electrification of Kitangari W/S is needed.

Recommendations

13. Improve the control by the Project of achievements of outputs in the production of point source supplies.

14. Undertake new constructions of point source supplies in the dry season only. Ensure by training and by better control the followance of approved site investigation methods and standard drawings.

15. Give first priority to handpump replacements.

16. Check the designs of rehabilitation works of piped schemes where works have not yet been started. Prepare a document containing a design brief with calculations, drawings showing possible changes of design and estimation of O&M costs for each scheme.

17. Arrange participation of operators of schemes in all stages of the rehabilitation work.

18. Arrange checking by an outside expert of electrical and mechanical installations of Mkunya-Makote W/S as well as the supervision of test runs of the system.

19. Carry out a study of all consequences of the electrification of the Kitangari W/S so that the eventual electrification can take place in 1990. Include investigation of possibilities of establishing an independently administered unit for Kitangari W/S in the study.

OPERATION AND MAINTENANCE

Findings

The O&M of point source supplies by communities has been strengthened by training pump attendants, by providing a handbook and manuals and by support from MAJI districts in spare parts suppply and maintenance of older pumps. The O&M procedures developed for community operated point source supplies are appropriate. Failures are believed to be mainly caused by inadequate community participation.

The idea of O&M of piped schemes by communities is new and needs development. Follow-up and support activities are required for lasting community involvement.

O&M systems of piped supplies need to be properly documented.

Recommendations

20. Develop O&M procedures according to the new approach in community participation towards lasting active involvement of beneficiaries including responsibility for the O&M costs.

21. Arrange follow-up of the O&M functions of the VWSCs at piped supplies and establish a back-up system to support the technical standard of O&M.

22. Supplement the training of piped scheme operators with participation in rehabilitation works.

23. Arrange spare parts supply and major maintenance and repairs through the district MAJI offices.

24. Arrange cost recovery of the normal running spares right from the beginning.

25. Document properly the developed O&M systems and procedures of MAJI operated W/S.

26. Develop procurement systems of spares and consumables through the normal local channels.

27. Translate into Kiswahili vital O&M instructions and make them readily available to technicians and operators at the installation itself. Supplement them with drawings and assemble in a job-guide step-by-step manner.

TRAINING AND MANPOWER DEVELOPMENT

Findings

The outputs and indicators of the manpower development sector are vague and, therefore, it is difficult to verify achievements. Good foundation work has been don and the manpower development is on the right track. The management training should, however, provide managers/supervisors with capabilities to deal with real-life problems and not concentrate on management theories only.
An in-depth appraisal system of on-the-job performance of staff is needed for the evaluation of training achievements. Performance objectives should be written in the training materials.

Government of Tanzania policies impacting on the human resources development need to be taken into account.

Recommendations

28. Utilize the list of real-life problems identified through the group force-field analysis done in each region to design relevant training for upper level project staff (Tanzanian and Finnish) so that they will aquire necessary management skills and tools to cope with these constraints.

29. Establish and utilize a training evaluation system which includes follow-up on the job to determine if the new found knowledge and skills are being applied.

30. Provide examples of performance objective statements and special coaching to instructors and developers of training material.

31. Provide collaborating institutions with a detailed training module format so that a quality standard is established for training materials to be prepared by others.

32. Obtain copies of Government of Tanzania policy documents which impact on training and manpower development so that the Training Officer and Training Coordinators can thoroughly familiarize

themselves with the regulations which influence their work and the people they train.

33. Ensure that training/education of personnel satisfies both the needs of the organization and the needs of the individual in keeping with the Governmanet policy.

34. Summarize the features and/or activities of other projects visited during study tours which could serve as models for future work in Mtwara-Lindi project.

Recommendations for Phase VI

35. Elaborate an objective for the training and manpower development sector in Phase VI that includes the establishment of a sustainable training delivery system.

36. Prepare a cost-sharing (Tanzania-FINNIDA) formula for the sector. If eventually the sector is to be 100% sustained financially by MAJI, this should be reflected in the formula.

37. Continue with the development of performance-oriented training materials.

38. Concentrate on equipping managers/supervisors with the mangement skills and tools to deal more effectively with their non-technical problems.

39. Continue with priority skills and technical training.

40. Initiate remedial classes in English for technicians.

COMMUNITY INVOLVEMENT

Findings

Outputs and indicators of community participation sector in the project document are vague and quantitative data on them are not available for assessment of achievements.

The start of the community participation promotion has been delayed because of the late recruitment of Community Participation Development Officers. A study by these officers has revealed that previous efforts of community involvement have failed. A new working approach has been developed and training of leaders in mobilization skills started. Experience is being gathered in community participation work in pilot areas.

To achieve good participation the communities should themselves initiate the development of their water supply and be involved in all stages of the development and O&M. If the progress of the Project is to continue, cost sharing by communities is required. To clarify responsibilities and to emhasize ownership of the supply, formal agreements are needed.

Although not included in the project document, sanitation activities have been going on and recently interest in family latrines has increased. Lack of transportation has retarded the delivery of materials to the recipients.

Recommendations

41. Reformulate outputs and indicators in community involvement to make them quantitative and more accurate.

42. Establish a procedure for the follow-up of community participation in the pilot areas with collection of relevant quantitive data. Revise the working approach and plan a sustainable organizational set-up and and financing system for community participation promotion before proceeding to other areas.

43. Develop a procedure for making agreements on standard forms to clearly define the responsibilities of communities during the implementation and after the handing over of point source supplies.

44. Define the strategy and required outputs for sanitation for the remaining period of Phase V. Provide necessary support to the Sanitation Coordinators so that the outputs can be produced.

INPUTS

Findings

The project document calls for inputs which are not included in the project budget or expressed as estimated sums of money from the Government of Tanzania. In addition, inputs specified in the project budget are required. Neither kind of inputs have been adequately supplied.

The inputs of the Government of Finland have been supplied according to the project document although some differences in the rate of actual and planned supply have occurred because of the late start of Phase V. Also the start of training has been delayed and this sector is now at a stage where the services of a Training Adviser are needed beyond the planned expiration of the post in early 1990.

The imbalance of inputs and the inability of the Government of Tanzania to match the donor input is causing serious problems to the progress of the Project. To alleviate them the Project has adopted the "topping-up" method and paid part of the local component and later invoiced MAJI.

Recommendations

45. Prepare realistic cost estimates separately for the contributions required from donor, ministries, districts and communities. Inform the central government and district authorities about the requirement of funds to enable it to be taken into account in the respective budgets.

46. Adjust action plans according to available local funds.

47. Retain the post of the Training Adviser until the end of Phase V.

48. Avoid "topping-up" of local component.

INSTITUTIONAL ARRANGEMENTS

Findings

Parallelism still exists in the project organization.

The project document calls for the establishment of three committees to supervise, monitor and coordinate the work of the Project. In practice especially the Advisory Committee has failed to function as planned.

Coordination with other organizations has been satisfactory. No advantages can be foreseen from placing the Project under the umbrella of RIPS at the present stage.

Recommendations

49. Replan the internal project organization and eliminate parallelism. Give accurate descriptions of the duties and lines of resporting of each person.

50. Reconsider the role and composition of the Advisory Committee to make it an active and competent body to monitor the progress and to approve the plans of the Project.

51. Keep the Mtwara-Lindi Rural Water Supply Project independent but ensure coordination with RIPS by inviting a representative of RIPS to the Steering Committee.

MONITORING AND REPORTING

Findings

The project document gives to the Advisory Committee the task of monitoring the Project. Also the Steering Committee is supposed to do monitoring. Neither of them has fulfilled this duty efficiently.

Regular progress reports are adequate and their contents clear. The arrangement of contents differ from that of the project document and therefore it is difficult to compare targets and outputs.

Recommendations

52. Define the roles of committees in the monitoring of the Project clearly. Specify scope and methods of monitoring.

53. Revise the contents of the reports to follow more closely the project document to enable easier verification of the progress in relation to the required outputs and indicators.

COSTS AND FINANCING

Findings

The budget reporting system is confusing because of too general breakdown of components, differing item numbers from those in the project document, insufficient auditing and lack of coordination between the local and foreign components. Efforts must be made to increase local component. Reallocation of water funds to other sectors has sometimes occurred in districts.

Recommendations

54. Adhere to the items presented in the project document in budget reports. Coordinate allocations of local and foreign components.

55. Place the funds of the water sector in the districts strictly under the control of the District Water Engineers.

56. Increase efforts for beneficiaries' participation.

MINISTRY FOR FOREIGN AFFAIRS OF FINLAND
Finnish International Development Agency
Bureau for Social Development

17.01.1990

TERMS OF REFERENCE FOR THE EVALUATION OF MTWARA-LINDI RURAL WATER SUPPLY PROJECT IN TANZANIA

1. BACKGROUND

The governments of the United Republic of Tanzania and the Republic of Finland have agreed that within their development co-operation programme one of the main sectors is water supply and sanitation.
Mtwara-Lindi water supply project was identified in 1972. A Water Master Plan was prepared for the area during 1973-77 covering the period up to 1991 in accordance with the long-term objective of the Government of Tanzania of providinig the entire population an access to clean and safe potable water by the year 1991.

The implementation of the project started in 1978 as a crash programme with the target of creating a minimum level water supply system to the area. As this approach, however, created severe problems as to sustainability of the project, the approach has been revised in the later phases of the project towards more institution building and participatory mode.

The project has now proceeded to its fifth phase covering the years 1988-90. It has been planned as an integration and institution building phase in order to strenghten the capabilities of the local water authority to take over all Project activities. The actual construction as well as operation and maintenance activities were basically transferred to the local water authority already by the end of phase IV. The main target of phase V has been the development of management, operation and maintenance systems, development of manpower and establishment of an effective system of community management for the handpump-wells.

A project document for the present phase was originally prepared by the end of 1987. As this document was, however, found inappropriate by the Tanzanian authorities it was revised by a review mission autumn 1988. This revised [illegible] the Project.

2. PURPOSE OF THE EVALUATION

The main purpose of the evaluation is to assess and analyse the progress made during phase V, identify the problems and deficiencies in the plans, approach and strategy of the Project and prepare detailed recommendations for future actions to be taken. Based on the recommendations and discussions held with the Tanzanian authorities and FINNIDA a draft Project Document will be prepared as defined in this Terms of Reference and additional consultancy agreements.

3. SCOPE OF WORK

The mission shall make a thorough assessment of the targets, plans, approach, strategies, activities and results of the Project and give detailed recommendations for the remedial measures, if needed, and future plans. In order to achieve the purpose of the evaluation the mission should cover, but not necessarily be limited to the following aspects:

3.1 Objectives of the Project

Have the objectives of the Project been realistic and appropriate?

To what extend has the Project achieved, or is likely to achieve its objectives as indicated in the Project Document?

How the objectives should be revised and how the performance of the Project should and could be improved?

3.2 Project strategy

Is the strategy chosen appropriate for the achievement of the objectives? How the strategy should be revised, if needed?

Has the strategy been followed by the Project? What measures should be made in order to improve the performance of the Project?

Special consideration should be given to:

- integration of the Project to the organization of the Ministry of Water (MAJI)

- strategy developed for the community involvement

- strategy in the development of the capabilities of MAJI; has the balance between the development of production, operation and maintenance, management of the water supplies and manpower been appropriate?

3.3 Institution building

Have the targets of the institution building sector in the Project Document been realistic and appropriate? How the targets should be revised and improved?

Have the outputs of this project sector been achieved successfully? If not, what measures should be taken to improve the performance?

Special consideration should be given to:

- development in the planning and follow-up systems of MA.

- development of an effective transport system with the available resources

- development of the management of stores and workshops

3.4. Construction and planning of new and rehabilitated water points and piped water schemes

Have the targets been realistic and appropriate compared t the resources available? If not, how the targets should be revised?

Have the outputs been achieved sastisfactorily and what remedial measures should be taken?

Special consideration should be given to:

- quality and appropriatness of the studies concerning the new and rehabilitated piped water schemes. Have the socio-economic and operational conditions been taken into account sufficiently?

- development of point source production methods and procedures

- development of planning capabilities of MAJI

- appropriatness of the used technology

3.5 Operation and maintenance

Have the targets set for the development of operation and maintenance activities of MAJI been realistic and appropriate? What revisions should be made to the targets?

Have the outputs been achieved successfully? If not, what remedial measures should be taken?

Special consideration should be given to:

- appropriatness of the community based operation and maintenance system of the hand-pump wells. Is the chosen approach relevant, what should be the role of MAJI in supporting the communities taken into account the available resources?

- development of the O&M systems of community operated water supplies. Are the procedures, manuals, management systems and sparepart systems appropriate? How these systems should be developed further?

- appropriatness of the O&M system of MAJI operated water supplies. Special attention should be payed on the sustainability of the Makonde Plateau Water Supply Scheme and Rondo Plateau Water Supply Scheme.

- quality of O&M procedures and manuals; do the manuals and procedures ensure a reliable operation of water supplies, are the operators able to follow the manuals and operate and maintain the equipment effectively, can the spareparts be ordered easily by the relevant Tanzanian bodies, is the availability of spare parts ensured? What remedial measures should be taken?

3.6 Training and manpower development

Have the targets been realistic and appropriate? How the targets should be revised?

Have the outputs been achieved succesfully? What remedial measures should be taken?

Special consideration should be given to:

- have the manpower recruitment and development policies of MAJI been taken into account properly? Is the training needs assessment realistic compared to the recruitment policies and the capabilities of the manpower?

- are the training materials and methods appropriate taking into account the level of trainees and skill development needs

- has the Tanzanian educational system been taken into account properly?

- have the Tanzanian training institutions been satisfactorily involved in the preparation and implementation of the training programmes?

- is the developed training system replicable and sustainable?

3.7 Community involvement

Have the targets been realistic and appropriate? How the targets should be revised?

Have the outputs been achieved satisfactorily? What remedial measures should be taken?

Special consideration should be given to:

- what is the realistic level of community involvement in the operation, maintenance and management of water supplies in the long run taken into account the existinig situation and resources available? Are the plans regarding the development of community involvement realistic and leading towards the development objective of the sector?

- is the organizational set-up in community involvement appropriate and effective? How should the organizational set-up be developed in order to achieve long-term sustainability?

- what should be the supportive role of different authorities and organizations?

- has the health education supported by the project been succesfull?

- has the cost-recovery system been established effectively, how should it be developed further?

3.8 Inputs

Taken into account the objectives and outputs set in the Project Document, have the inputs allocated been sufficient and realistic in order to achieve the targets?

Have the inputs of both the Finnish and Tanzanian contribution been supplied as planned and as needed?

Have the inputs been used effectively enough and have they been appropriate?

3.9 Institutional arrangements

Are the institutional arrangements satisfactory, is the co-operation between different bodies effective and smooth and are the roles and responsibilities defined properly?

Is the project organization satisfactory and effective? Has it been integrated satisfactorily to MAJI's organization? Is the number of project personnel sufficient?

Is the performance of the project personnel and management satisfactory? Are the relationships between Tanzanian and Finnish staff satisfactory?

Have the Tanzanian administration and decision making procedures been taken into account properly?

How should the management of the project be improved and the institutional framework revised?

Has the project been satisfactorily integrated to the other rural development activities in the two Regions? How should the integration be developed further?

3.10 Monitoring, reporting

Are the monitoring and reporting systems effective and appropriate to the Tanzanian and Finnish needs?

Has the reporting served satisfactorily as the basis for the work planning? Have the forms of the reporting been based satisfactorily on the Project Document?

3.11 Costs and financing

Are the targets being achieved cost-effectively? Has the cost-control system been appropriate and effective?

Have the funds been made available sufficiently and smoothly enough by the Tanzanian and Finnish authorities in order to ensure effective performance of the project? Has the project taken measures needed for fund-allocation in due time?

Is the project budget appropriate compared to the absorbing capacity of the Tanzanian organisations?

What is a realistic frame for the further development?

3.12 Environmental aspects

Have any harmful environmental impacts occurred because of the project? In case of negative impacts, what measures should be taken?

How the project could be used for the development of sustainable environmental conditions?

4. PREPARATION OF DRAFT PROJECT DOCUMENT

Based on the evaluation and discussions held with the Tanzanian authorities and FINNIDA a draft Project Document for the possible future co-operation will be prepared. The draft Project Document will be prepared according to the guidelines given by FINNIDA.

Following aspects should be taken into account when preparing the draft Project Document:

- the agreed frames of development co-operation between the two countries

- needs and possibilities of integrating the water project to the Rural Integrated Programme Support (RIPS) in Mtwara and Lindi Regions co-funded by FINNIDA.

- the draft Project Document shall be based on a long-term development projection to be prepared as a part of needed analysis

5. COMPOSITION OF THE TEAM

The mission team will be composed of the following persons:

Mrs Urpu-Liisa Airaksinen	Finntreat Ltd	Water Engineer Team leader and editor of the reports
Mr Neil Carefoot	WHO/	Human Resources Development Department Human resources specialist
Mr Osmo Purhonen	UNDP/World Bank Sector Development Team	Water Engineer

The Governmet of Tanzania will nominate one or two members for the team. It is proposed that the Tanzanian members would cover the following fields:

- community involvement
- management and administration of water supplies and water engineering

6. TIMETABLE AND REPORTING

The evaluation will take place between 22nd of January and 9th of February 1990.

The mission shall prepare a brief of its findings and recommendations already in Tanzania and discuss it with the Tanzanian authorities and the Embassy of Finland. A draft evaluation report shall be submitted to FINNIDA not later than 2nd of March and FINNIDA will send it to the relevant Tanzanian authorities for comments. The final report shall be submitted within two weeks after receiving the comments.

The draft Project Document will be prepared by 19th of March. The draft Project Document will be tentatively appraised during an appraisal mission between 26th of March and 6th of April 1990.

7. AUTHORIZATION

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

Glen Lindhola
Director

PROGRAMME OF THE EVALUATION MISSION

January 21,1990 - Arrival in Dar es Salaam
- Meeting with Mr. Kari Karanko, Ambassador of Finland

January 22,1990 - Meeting at SIDA office with
Mrs. M. Sundgren, Senior Programme Officer
- Meeting at the Ministry of Water with
Mr. N.K. Msimbira, Principal Secretary
Dr. R.O. Lucas, Director
Mr. C. Sayi, Head of Construction Section
- Meeting at NORAD office with
Ms. I. Klepsvik, Senior Programme Officer
Mr. A. Hollerud, Senior Programme Officer
- Meeting at Danida office with
Mr. J.V. Madsen

January 23,1990 - Flight to Mtwara
- Meeting at the Regional Water Engineer's office
Mr. M. Mtunzi, Regional Water Engineer
Mr. E. Tiainen, Project Coordinator, Finnwater
Mr. A. Makkonen, Home Office Coordinator, Finnwater
- Internal team meeting

January 24, 1990 - Meeting at the Regional Development Director's office with
Mr. R.K. Rwigusa, Acting RDD
- Introduction of the Project by
Mr. E. Tiainen, Project Coordinator
Mr. Mtunzi, Regional Water Engineer
Mr. E. Rönkä, Groundwater Development Adviser
Mr. L.H. Mwakajwanga, Groundwater Development Officer
Mr. L. Kattelus, Water Supply Adviser
Mr. M.M. Njovu, Water Supply Officer
Mr. A. Savela, Training Adviser
Dr. S. Bushiri, Community Participation Development Officer
Mrs. D. Chekanae, Community Participation Development Officer
Mr. J. Paavola, Administrative Officer
- Individual discussions with project personnel
- Internal team meeting

January 25,1990 - Round table meeting in Mtwara
Participants:

Group 1	Group 2	Group 3
Mtunzi	Sanaya	Bakari
Mwuango	Njovu	Mwenambule
Sumari	Mwakajwanga	Mndongwele
Paavola	Lihoka	Ritti
Sadiki	Kuusela	Tiainen
Assey	Rönkä	Mtaita

January 26,1990 - Field trip to Nanyamba handpump wells
- Individual discussions with project personnel

January 27,1990 - Individual discussions with project personnel
- Internal team meeting

January 29,1990 - Field trip to Mkunya-Makote, Mtongwele and Kitangari (Carefoot, Purhonen)
- Individual discussions with project personnel

January 30,1990 - Field trip to Nachingwea district including: meeting with Mr. V. Ndyano, District Water Engineer, meeting with District Executive Director, field trip to Ruponda Division visiting handpump wells and meeting divisional, ward and village leader
- Meeting with Mr. H.J. Komba, District Commissioner
- Visit to Nachingwea urban water supply

January 31,1990 - Meeting with Mr. P. Mokiwa, Regional Water Engineer in Lindi
- Meeting with Mr. C. Rutaihwa, Regional Development Director
- Individual discussions with MAJI regional staff in Lindi
- Visit to Lindi urban water supply

February 1,1990 - Round table meeting in Lindi
Participants:
Mrs. D. Chekanae, Community Participation Development Officer
Mr. P. Mokiwa, Regional Water Engineer
Mr. R.M. Muhabuhi, Hydrologist
Mr. S. Mungure
Mr. B. Mbinga, Head of Mechanical Workshop
Mr. L. Kattelus, Water Supply Adviser
Mr. A. Savela, Training Adviser
Mr. E. Tiainen, Project Coordinator
Mr. M. Evarist, District Water Engineer, Lindi
Mr. C.J.A. Kalimbia, Design, Data and Training Officer
Mr. R.A. Mfahi, System and Data Engineer
Mr. N. Nkrumah, Geologist
Mr. V. Ndyano, District Water Engineer, Nachingwea
Mr. F. Saweru, District Water Engineer, Liwale
Mr. E.T. Rashidi, Acting Regional Community Development Officer
Mr. S.H. Kichukwi, Ac. Regional Health Officer
Mr. C.J. Ponella, District Executive Director, Kilwa
Mr. M.B. Magway, District Water Engineer, Kilwa
Mr. N. Mnguli, Planning - for District Executive Director, Lindi
- Return to Mtwara

February 2,1990 - Report writing
- Internal team meeting to agree on preliminary findings and recommendations

February 3,1990 - Debriefing meeting in Mtwara

February 5,1990 - Return to Dar es Salaam
- Internal team meeting

February 6,1990 - Report writing
- Meeting at the Embassy of Finland with
Mr. K. Karanko, Ambassador of Finland
Mr. A. Luukkainen, First Secretary

February 7, 1990 - Meeting at the Ministry of Water with
Mr. N.K. Msimbira, Principal Secretary
Officers in charge of design and manpower development

Febryary 8, 1990 - Report writing
- Closing meeting of evaluation team

PROJECT VEHICLES

FINNWATER NUMBER	REGISTRATION NUMBER	TYPE	MAINLY USED FOR
Mtwara Region Pool			
05	TX 14703	LR 110 PICK UP	MAKONDEKO/KITANGARI
28	TX 14703	LR 110 PICK UP	MAKONDEKO
07	TX 13224	LR 110 PICK UP	MTWARA/SEISMIC SURVEY
010	TX 13010	LR 110 H/T	MTWARA/MAINTENANCE UNIT
32	TX 14762	LR 110 PICK UP	MASASI DISTRICT
34	TX 14920	LR 110 PICK UP	NEWALA DISTRICT
35	TX 14921	LR 110 PICK UP	MTWARA DISTRICT
36	TX 14922	LR 110 PICK UP	DTH-DRILLING
45	TX 15080	LR 110 S/W	RWE MTWARA
51	TX 2874	SISU LORRY	DTH-DRILLING
52	STH 678	SISU LORRY	RWE MTWARA
60	TX 13227	SISU LORRY	RWE MTWARA
62	STH 681	ISUZU LORRY	RWE MTWARA
40	TX 14761	LR 110 S/W	SANITATION
Lindi Region Pool			
08	TX 13008	LR 110 H/T	LINDI/MAINTENANCE UNIT
29	TX 14704	LR 110 P/U	NACHINWEA DISTRICT
30	TX 14705	LR 110 P/U	KILWA DISTRICT
31	TX 14706	LR 110 P/U	LIWALE DISTRICT
33	TX 14 919	LR 110 P/U	LINDI DISTERICT
42	TX 14916	LR 110 S/W	RWE 1INDI
54	TX 1055	SISU LORRY	RWE LINDI
59	TX 13226	SISU LORRY	RWE LINDI
61	TX 680	ISUZU LORRY	RWE LINDI
Project Pool			
06	TX 13225	LR 110 P/U	SHANGANI
013	TX 9562	TOYOTA S/W	DAR OFFICE
37	TX 14758	LR 110 S/W	MECHANICAL ENGINEER
38	TX 14759	LR 110 S/W	ADMINISTRATION OFFICER
39	TX 14760	LR 110 S/W	CONSTRUCTION SUPERVISOR
41	TX 14915	LR 110 S/W	TRAINING ADVISER
43	TX 14917	LR 110 S/W	C.P.OFFICER MTWARA
44	TX 14913	LR 110 S/W	C.P.OFFICER LINDI
46		TOYOTA S/W	DAR OFFICE
47	TX 16303	LR 110 S/W	PROJECT COORDINATOR
48	TX 16299	LR 110 S/W	GROUNDWATER ADVISER
49	TX 16302	LR 110 S/W	WATER SUPPLY ADVISER
50	TX 16304	LR 110 P/U	MTWARA OFFICE
	TX 1081	TRAILER	OFFICE
	TX 1077	WATER BOWSER	SHANGANI

VEHICLES TO BE HANDED OVER TO THE REGIONAL OFFICES

To Lindi Region

011	TX 9564	TOYOTA P/U	RWE OFFICE
016	TX 11459	TOYOTA P/U	RWE OFFICE
19	TX 1058	LR 109 P/U	RWE OFFICE
20	TX 1057	LR 109 P/U	LINDI URBAN
	TX 1065	CARAVAN	RWE OFFICE
	TX 1074	WATER BOWSER	RWE OFFICE
	TX 1079	OIL BOESER	RWE OFFICE
	STG	NISSAN P/U	RWE OFFICE

To Mtwara Region

012	TX 9565	TOYOTA P/U	RWE MTWARA
014	TX 10957	TOYOTA S/W	RWE MTWARA
015	TX 11548	TOYOTA P/U	RWE MTWARA
21	TX 5644	LR 109 P/U	RIG NO.41
24	TX 5920	LR 109 P/U	MTWARA URBAN
26	STG 4649	LR 109 H/T	MAKONDEKO
27	STG 4651	LR 109 P/U	MAKONDEKO
	TX 1088	VALMET EXCAV.	RWE MTWARA
	TX 9568	HONDA MOTORBIKE	GARAGE
	TX 9567	HONDA MOTORBIKE	GARAGE
	TX 9566	HONDA MOTORBIKE	GARAGE
	TX 224	HELKAMA MOPED	GARAGE
	TX1076	TRAILER	RWE MTWARA
	TX 9553	JYKI TRAILER	RWE MTWARA
	TX 1064	CARAVAN	RWE MTWARA
	TX 1073	WATER BOWSER	RWE MTWARA
	TX 1075	WATER BOWSER	RWE MTWARA
	TX 1078	OIL BOWSER	RWE MTWARA
	STG 4934	NISSAN DOUBLE CABIN	RWE MTWARA

Estimated Percent Accomplishment

COMPONENTS	OUTPUTS	RWE Mtwara	RWE Lindi	Proj. Coord.	WE Mtwara &Proj.Coord.
4.1 Training needs assessment	-- Training needs study	100	100	100	100
4.2 Preparation of training programme	-- Comprehensive training programme	100	100	100	100
4.3 Local community training	-- Capability within local communities to construct, repair, upgrade and properly use water supplies.	30	70	30	30
	-- Selected individuals from each community trained and available in the project area for O&M activities related to the water supply system and to repair VLOM pumps.	50	80	20	40
4.4 Skilled labour training	-- Sufficient pump repairers trained and available in the project area.	70	80	50	60
	-- Sufficient workers trained in construction and repair of small systems in project area.	70	100	50	60
4.5 Piped scheme operators training	-- Sufficient personnel trained in operation and maintenance of piped schemes.	70	70	40	60
4.6 Training of special groups	-- Regular training courses,seminars, and on-the-job training on relevant matters.	100	100	40	90
4.7 Training abroad	-- Selected individuals trained abroad on water supply in selected matters.	90	90	40	100
4.8 Training of trainers	-- Sufficient personnel trained in planning and implementation of training programmes.	100	100	50	100
4.9 Management training	-- Key individuals trained in effective management practices.	100	80	50	100

OUTPUTS	INDICATORS OF SUCCESS	RWE Mtwara & Proj.Coord.
Training needs study	Task analysis prepared for each post	100
	Skill analysis of MAJI's personnel done	100
	All training needs assessed	100
Comprehensive training programme	Comprehensive training programme prepared by end of 1988	100
	Training implemented according to the comprehensive training programme after beginning of 1989	100
Capability within local communities to construct, repair, upgrade and properly use water supplies	Health and water related education undertaken at each community	30
	Each community having been directly involved in construction snd planning of their own water supply system	40
	Each community properly using its water supply	40
Selected individuals from each community trained and available in the project area for O&M activities related to the water supply system and to repair VLOM pumps	Attendants trained and active at each spring and piped scheme operated by community	50
	Trained pump attendants appointed and working properly at every VLOM pump in the project area	50
Sufficient pump repairers trained and available in the project area	Trained pump repairers readily available in districts and active in maintenance of pumps	70
Sufficient workers trained in construction and repair of small systems in project area	Trained workers readily available in districts and capable of undertaking water supply scheme construction, maintenance and repair	60
Sufficient personnel trained in operation and maintenance of piped schemes	Every piped scheme has trained operators assigned and active in O&M activities	70
	Training material and programmes developed and available for MAJI to continue training of operators	70
Regular training courses, seminars and on-the-job training on relevant matters	On-the-job training given in relevant fields to trainees from MAJI and other organizations	90
	Regular courses/seminars held for specialist groups in accordance with the approved comprehensive training programme	90
Selected individual trained abroad on water supply in selected matters	Key individual selected and sent on approved study tours/courses etc. abroad in accordance with the approved comprehensive training programme	90
Sufficient personnel trained in planning and implementation of training programmes	Key individuals in training selected and trained in relevant Tanzanian training institutes	80
	Trained personnel is familiar with the methods of planning and implementation of training	80
Key individuals trained in effective management practices	A management training programme prepared by end 1988	100
	Trained personnel using new management practices	80

HRD SITUATION ANALYSIS - SUMMARY OF FINDINGS

ANNEX 5.

STRENGTHS

PLANNING

- Manpower inventories have been done for both regions
- An estimate of manpower needs has been done
- The 1989-90 comprehensive training plan focusses on training priorities
- The training adviser has established linkages with national and regional training institutions (IDM, WRI and TRDC)
- The training centre at Mtongwale and waterworks facilities at Kitangari are being utilized for technical and skill training

TRAINING

- Activities follow the 1989-90 "Comprehensive Training Plan"
- Task analyes have been carried out for the majority of positions to determine what workers "need-to-know" to perform their jobs satisfactorily
- The instructor training conducted in 1989 dealt with performance-oriented training
- 20 technical/supervisory project staff were provided with a course in instructional methods during 1989
- Training materials have now been prepared for a number of short courses
- A variety of delivery options are employed for the training being implemented: short courses; O-T-J; in-service; etc.
- Facilities and equipment are adequate for the training contemplated
- Adequate training aids have been aquired by the Project; reference books; transparencies; video files; O&M documents, etc.
- After training opinion surveys are being carried out with trainees to obtain their views on the usefulness of their training

MANAGEMENT

- Organizational charts exist for each region
- Performance-based job descriptions have been prepared for all project personnel
- FINNIDA funding facilitates a wide range of training activities for water supply personnel

OPPORTUNITIES FOR IMPROVEMENT

PLANNING

- Better insight is needed as to performance deficiences and/or skill inadequacies among project personnel. Such info provides necessary baseline data for planning relevant training at all levels.

TRAINING

- The force-field analysis done in Mtwara on 25 January, 1990 and in Lindi on 1 February, 1990 revealed major constraints being faced by top mangerial/supervisory staff in the regions. It is important to mention that almost all of the identified constraints were non-technical. Logically, Managerial/supervisory training should focus on how these constraints can be overcome. Courses conducted in 1989 however, concentrated on management theory.
- Although the instructional methods course focussed on performance oriented training, some of training materials being prepared do not have suitable performance-objective statements. Preparation of future training materials could be enhanced by providing a model format and special coaching for the development of such materials. In this way instructors can concentrate on performance-oriented training rather than knowledge-oriented.
- An evaluation system is needed to measure the benefits derived from investments in training. Evidence is required to illustrate training effectiveness. Such evidence as: reduced cost improved performance; improved quality; improved quantity; etc.

MANAGEMENT

- In spite of the fine foundation work done by the Project the sustainability of manpower development and training is doubtful. No tradition or even guidelines have been established for Tanzania to continue such investments in manpower development.
- The 37 senior level mangers/supervisors in both regions identified lack of incentives and motivati as one of the most serious problems they face. A manpower development programme would be remiss not to deal with issues such as these which severely affect staff retention.

MAJOR PROBLEMS IN PROJECT IMPLEMENTATION ACCORDING TO FORCE-FIELD ANALYSIS BY PROJECT PERSONNEL

(1)	(2)	(3)
MAJOR PROBLEMS IDENTIFIED BY SENIOR MANGERS/SUPERVISORS MTWARA, January, 1990	MAJOR PROBLEMS IDENTIFIED BY SENIOR MANAGERS/SUPERVISORS LINDI, February, 1990	LIST OF TOPICS/SUBJECTS IDM MANAGEMENT COURSE 1989
1. SHORTAGE OF SKILLED	1. LACK OF LOCAL FUNDS	↕ MANAGEMENT OF TIME
2. SCARCITY OF WATER RESOURCES	2. LACK OF SKILLED MANPOWER	↕ LEADERSHIP AND LEADERSHIP STYLES
3. INADEQUATE LOCAL FUNDS	3. LACK OF RELIABLE WATER SOURCES	↕ DELEGATION
4. POOR COMMUNICATION AND TRANSPORT	4. LARGE AREA AND POOR ROADS	↕ MANPOWER PLANNING AT CORPORATE LEVEL
5. LACK OF MOTIVATION AND INCENTIVES	5. INSUFFICIENCY OF MATERIALS AND EQUIPMENT	
6. PARALLELISM BETWEEN MAJI AND PROJECT STRUCTURE	6. LACK OF MOTIVATION AND INCENTIVES	↕ INTRODUCTION TO PROJECT IDENTIFICATION
7. LATE START OF COMMUNITY PARTICIPATION PROGRAMME	7. UNREALISTIC TIME SCHEDULES AND POOR PROGRAMMING	↕ FORMAL TECHNIQUES OF PROJECT APPRAISAL
8. ATTITUDE AND CULTURAL DIFFERENCES	8. LACK OF COMMUNITY PARTICIPATION	↕ PROJECT MONITORING AND EVALUATION
9. LATE START OF INTEGRATION	9. POLICY OF "FREE" WATER	↕ WORK STUDY
10. LACK OF DETAILED PLANNING	10. LACK OF EFFECTIVE MGMNT AND SUPERVISION	↕ THE CONCEPT OF MATERIALS MANAGEMENT
11. INSUFFICIENT VISITS TO	11. INADEQUATE PREVENTIVE MAINTENANCE	↕ THE PURCHASING FUNCTION
		↕ INVENTORY MNGNT AND CONTROL
		↕ CLEARING OF GOODS

TRAINING MODULE FORMAT

The following will serve as a guide for headings and the type of information to be included when preparing materials for a learning event -- e.g.: seminars; workshops; courses; and conference presentations.

1. TITLE	The name of the module. It should be given a name that provides effecti "recall" association.
2. DESCRIPTION	A short, general, one paragraph description of activities, their purpose a possible outcomes.
3. OBJECTIVE(S)	This is the core of the module. A statement of what you expect of the pa ticipant as a result of the learning activity. It is helpful to use a classifica system which divides objectives into one of 3 domains: practical; commu nication; and intellectual skills
4. BASIC POINTS	A short summary of concepts suitable to those wanting a quick overview some of the "morals" that could/should be derived from the experience possible answers to discussion questions. Tips to trainers should be included in this section: themes to be stressed, repetition of themes from other modules which might be reinforced during delivery of this component, etc.
5. TARGET GROUP	Describes the kind of group(s) the module is suitable for. Should indicat the minimum and maximum plenary and subgroup sizes.
6. TIMING	Two issues should be addressed under "timing": 1) total time required complete the module -- with notes on possible flexibilities; and 2) notes sequence, prerequisite or suggested follow-on learning activities.
7. FACILITIES & EQUIPMENT	Type of room(s), arrangements, and other facilities required. A listing of all equipment needed to carry out the instruction/presentatio (such as AV equipment and demonstration apparatus).
8. MATERIALS	Learning materials (textbooks, overhead transparencies, handouts, etc.) required to perform the learning activity as described in the procedure.
9. PROCEDURE	A step-by-step guide to how the module can be sequenced, organized, a conducted. A description of 'learning activities' to be included in the tra ing. Generally this section of documentation should read as a "script" hints to the trainer as to verbal illustrations, discussion questions, etc.
10. EVALUATION	A listing of appropriate methods to determine whether or not the partici has achieved the objective. The evaluation method must be appropriate the performance called for in the objective.

PAGE No. & CODES

More on Objectives

"If you are not sure where you are going you are liable to end up someplace else -- and not even know it".

Robert Mager
"Preparing Instructional Objectives", 1962

Before you prepare instruction, before you choose material, machine, or method, it is important to be able to state clearly what your goals are. All educational objectives can be classified in one of three domains, viz:

* Practical skills;
* Communication skills (attitude); and
* Intellectual skills (knowledge).

Educational objectives are also called "learning objectives" -- they define what tasks the trainee/participant, not the instructor, should be able to do at the end of a unit of instruction. This helps facilitate a student-centered approach in education.

On-the-job, often the performance of job tasks involves not only practical skills, but specific job related knowledge and in some cases a certain attitude. Thus, in order to write sound learning objectives -- related to the performance of a specific job -- it is essential to carry out a task analysis.

A task analysis is the process of identifying and describing the tasks of a job and determining the requirements the job places on the worker for successful performance. A task analysis eliminates subjective decisions about topics to be included in a training event -- i.e. the instructor deciding on what he thinks the trainee should know. The job itself is analyzed and broken down into its component parts -- tasks. The learning objectives are therefore based on the task analysis -- i.e. what the person actually does on his job and what knowledge and skills are required to satisfactorily perform the job.

To be specific, learning objectives should have the following qualities:

* Relevant;
* Logical;
* Unequivocal;
* Feasible;
* Observable; and
* Measurable.

A learning objective not only sets the stage for training, but spells out what the desired outcome will be. By definition, an instructional objective is a clear statement of what the successful trainee will be able to do at the end of a unit of instruction. If the learning objective is poorly stated or incorrectly stated, there is no sound basis for selecting appropriate training materials, content or instructional methods and the outcome is likely to fall short of expectations.

Unfortunately, when writing objectives, there are many "loaded" words -- words open to a wide range of interpretation. "Understand" and "appreciate" are two typical examples. Though it is all right to include such words as "understand" and "appreciate" in a statement of an objective, the statement is not explicit enough to be useful until it indicates how you intend to sample the "understanding" and "appreciating". Until you describe what the trainee will be DOING when demonstrating that he "understands" or "appreciates", you have described very little at all. Thus, the statement that communicates best will be one that describes the terminal behaviour of the learner well enough to preclude misinterpretation.

Consider the following examples of words in this light:

WORDS OPEN TO MANY INTERPRETATIONS	WORDS OPEN TO FEWER INTERPRETATIONS
to know	to write
to understand	to calculate
to motivate	to design
to appreciate	to construct
to create an awareness	to identify
to grasp the significance of	to differentiate
to enjoy	to solve
to believe	to list
to have faith in	to compare

The only reliable way to determine the success of a training event is to be able to measure how well the trainees can perform (DO) what was identified as the learning objective.

NOTE: Additional details about objectives can be found in WHO Offset Publication NO. 35 "Educational Handbook for Health Personnel" as well as on p.126 of WHO's HRD Handbook.

More on Procedure

The Procedure section of module development should be a step-by-step description of the process the facilitator should follow, including all references to visuals, hand outs, etc., and detailed explanation of key points of the exercise.

The Procedure section should include as many of the "events", described in the table below, as possible. Some of the items below may be accounted for in other sections of the facilitator's notes, such as in the OBJECTIVES section, but should be referred to in the procedure section as well.

Reference: Adapted from Robert Gagne's, The Nine Events of Instruction

Event	How	Why
1. Gain Attention	Introduce module in a way that captures attention of the participants. This can be done through humour, dramatic statement, a provocative question, or, at a minimum, by beginning the module with items 2 and/or 3 below.	Focusses attentions, creates expectation, and prepares participant for learning.
2. Relate Topic to Prior Learning/Experiences	Draw from experiences from prior workshop activities, situations from work contexts, or from life experiences which are common to the participants and relate to the subject.	Provides a mental foundation or bridge on which to build the next learning experience.
3. Present Objective(s)	Describe general goals and/or specific behavioural performance objectives. (See" More on Objectives".)	Provides participants with an idea of the point/purpose of the exercise. Both participant and facilitators know when successful performance has been achieved.
4. Present Information	Present, demonstrate, or provide experience in the concept in an organized manner. Generally, more emphasis should be put on participants' activities and less on lecturing.	Organized, logical presentations/ experiences aid understanding of a new concept.
5. Guide Learning	Using a variety of instructional techniques, reinforce and clarify concept. Examples of guided learning activities: o Examples demonstrating concept o Comparing Contrasting Note: With some modules, this kind of activity will take the place of a more traditional presentation of information, since a more inductive process (learning through experience) is warranted.	Builds on initial exposure to content and molds sharper, more concrete understanding of the content.

TABLE CONTINUED ON NEXT PAGE...

Event	How	Why
6. Elicit Performance	Provide opportunity for experiencing, performing, practising and/or applying the material in a way that mirrors as close to real life situations as possible.	Best way for learning and mastery to occur (through experience and practice).
7. Provide Feedback on Performance	An opportunity to feedback on performance by the facilitator or participants must be incorporated into all workshop experiences.	Enables performance improvement to take place immediately.
8. Assess Performance with Feedback (when applicable)	Once practice and performance improvement has occurred, a concluding assessment of performance in some form is provided (by facilitators or by participants in the form, for example, of self-assessment and reflection). This can be incorporated in practices/group experiences, not necessarily in a "testing" manner, and not necessarily after each exercise. Traditionally, this is a "final" testing point, when competency on all objectives of an activity or course is assessed in a formal, comprehensive way.	Provides participants with an understanding of how well they are doing, how they have improved, and in what ways their behaviour could still be improved.
9. Enhance Application to Job	An opportunity to apply a workshop experience to actual job situations should be included whenever possible. Often, in a workshop context, this may take the form of debriefing of activities. Participants themselves are the best source of articulating transfer of the experience to their own organizations. Asking questions for plenary discussion or individual reflection is an excellent way to facilitate this process.	Aids transfer of knowledge and experiences gained in the workshop setting to situations on the job.

CHECK LIST

COUNTRY: ..... MINISTRY/AGENCY: .....

In order to obtain a quick overview of your ministry's/agency's HRD process, please check the square (1, 2, 3, 4 or 5) which most appropriately indicates the current status with respect to the essential elements shown under PLANNING, TRAINING & MANAGEMENT. Also please circle the element considered to be top priority.

CODE: 1 = NO 2 = PROPOSED 3 = TECHNICAL COOPERATION REQUIRED 4 = BEING DEVELOPED 5 = YES

PLANNING — Is HRD planning, within the context of NATIONAL and SECTOR plans, based on:

	1 2 3 4 5	QUALIFYING REMARKS
• an INVENTORY of EXISTING MANPOWER?	☐☐☐☐☐	.....
• an ESTIMATE of MANPOWER NEEDS?	☐☐☐☐☐	.....
• an ASSESSMENT of MANPOWER PRIORITIES?	☐☐☐☐☐	.....
• an EVALUATION of TRAINING REQUIREMENTS?	☐☐☐☐☐	.....
• an INVENTORY of TRAINERS?	☐☐☐☐☐	.....
• an INVENTORY of TRAINING RESOURCES?	☐☐☐☐☐	.....
• the PROPOSED LEVEL of SERVICE?	☐☐☐☐☐	.....
• an APPRAISAL of the public sector's ABILITY TO PAY trained qualified manpower?	☐☐☐☐☐	.....

TRAINING — Is the implementation of sector training activities based on:

	1 2 3 4 5	
• a MANPOWER DEVELOPMENT PLAN?	☐☐☐☐☐	.....
• a NEEDS ANALYSIS?	☐☐☐☐☐	.....
• a DEFINED TRAINING METHODOLOGY?	☐☐☐☐☐	.....
• a MULTI-DISCIPLINARY TEAM of INSTRUCTORS?	☐☐☐☐☐	.....
• PERFORMANCE-ORIENTED INSTRUCTIONAL MATERIALS?	☐☐☐☐☐	.....
• a VARIETY of DELIVERY OPTIONS?	☐☐☐☐☐	.....
• ADEQUATE FACILITIES and SUPPORT?	☐☐☐☐☐	.....
• ADEQUATE TRAINING AIDS?	☐☐☐☐☐	.....
• EVALUATION of LEARNING?	☐☐☐☐☐	.....

MANAGEMENT — To what extent has training been institutionalized, e.g. so that people in charge of HRD, and management in general, benefit from:

	1 2 3 4 5	
• an APPROPRIATE ORGANIZATIONAL CHART?	☐☐☐☐☐	.....
• an INTEGRATED PERSONNEL POLICY?	☐☐☐☐☐	.....
• PERFORMANCE-BASED JOB DESCRIPTIONS?	☐☐☐☐☐	.....
• a TRAINING POLICY?	☐☐☐☐☐	.....
• a TRAINING BUDGET?	☐☐☐☐☐	.....
• an EVALUATION of ON-THE-JOB PERFORMANCE?	☐☐☐☐☐	.....
• an EVALUATION of RESULTING LEVEL of SERVICE?	☐☐☐☐☐	.....

In addition check on GENERAL MORALE INDICATORS, e.g. percentage labour turnover, numbers of appeals against management, effectiveness of management - employee consultation.

Person interviewed .....

Interviewer .....

1981-1990

Study on the Electrification of Kitangari Water Supply

OUTLINE OF THE TERMS OF REFERENCE

Background

Kitangari Water Supply serves at present about 200,000 people. Water is abstracted from boreholes at Kitangari, treated and pumped to the supply area. The main part of the pumping takes place at Kitangari though there is a booster pumping station at Mtongwale about 10 km from Kitangari. The average pumping head is about 200 m. The pumps are electrical and the electricity is produced locally by generators using heavy diesel oil (IDO) between 1,000 and 2,000 litres per day.

The present operation is facing several problems:

- Fuel has to be transported by tankers from Mtwara which is about 200 km away and roads are poor causing delays and break-downs of the vehicles.

- At present the availability of fuel is good but at times shortages are causing interruptions in pumping.

- The diesel generators require careful maintenance which has to be carried out by qualified and well trained personnel. Due to the remoteness of the station it has been difficult to obtain and retain such people. For instance, at present the post of Mechanical Engineer is vacant and the scheme has relied heavily on the advisory support from Mtwara-Lindi Water Supply Project.

- The diesel generators require substantial amount of spare parts which have to be imported. At the moment the Project provides these spares but it is envisaged that the project support will be reduced in future and eventually stopped.

- The cost of fuel is high and cash payment at the time of procurement is required. This is an inflexible arrangement which puts continuous pressure on the processing of the payments.

Recently a TANESCO power generating plant has started operating in Masasi and a 33 kV electrical line has been constructed to Newala and extended to Mkunya-Makote W/S. At the nearest the line is about 30 to 35 km from Kitangari pumping station. The present load at the Masasi plant is low and the generators are operating below their practical minimum capacity.

Based on the situation described above and on the prevailing problems at Kitangari W/S and Masasi power station, a proposal has been made to extend the electrical line to Kitangari and to electrify Kitangari W/S.

Purpose of the Study

Although the idea of electrification seems to be good and technically justified, various aspects have to be studied and decided before the implementation of electrification can commence. The study will also form

basis for the agreement between MAJI and TANESCO and for the possible financial arrangements.

Contents of the Study

The study should cover following aspects:

- Review and assessment of the present equipment of Kitangari W/S (power generating, pumping): types, makes, capacities, conditions, power requirements, fuel supply, spare parts supply, etc.;

- Review of Masasi power supply: capacity, present production, future plans, supply line to Newala;

- Future power requirements of Kitangari;

- Review of other potential consumers who could benefit from the Kitangari power line;

- Technical arrangements of electrification of Kitangari W/S. This should cover alternative alignments of the connecting power line and installations at Kitangari. Alternative arrangements regarding the functions of the present power generating equipment shall be studied;

- Costs: present and future costs of local power generating, investment costs of electrification, electricity tariff, electricity costs;

- Administrative arrangement of the electrification: share of responsibilities between TANESCO and MAJI, effects on the personnel requirements of Kitangari;

- Comparison between present arrangement and electrification: operational reliability, spare parts supply, manpower, effects on TANESCO operation. Financial analysis for TANESCO and MAJI including cost - benefit calculations. Additional benefits of Kitangari electrification (e.g. possibility of electrifying other Makonde Plateau water supplies and other consumer groups), other possible aspects;

- Proposal for the future system for itangari W/S power generation. If electrification is recommended the proposal shall include detailed schedule of steps to be taken, administrative arrangement and financing arrangement.

Arrangement

The study is proposed to be carried out by a short term consultant and financed as a part of the Mtwara-Lindi Water Supply Project. The project personnel can assist the consultant in certain areas of expertise. The consultant shall be supervised jointly by the roject and TANESCO.

Timing

The study should be carried out as soon as possible so that the preparatory work can be carried out and implementation started during Phase V of the Project before end of 1990. It is envisaged that the duration of the actual study is about 4 weeks.

COMMENTS ON THE REPORT OF THE EVALUATION MISSION

1. COMMENTS BY MR. OSMO PURHONEN, TEAM MEMBER

General Comments

(i) The late approval of the Project Document - December 1988- slowed down the pace of implementation during the first year of Phase V. This should be mentioned clearly in the report.

(ii) It seems that contrary to the intentions of the project document, the emphasis has shifted from point source water supplies to piped schemes. In view of the sustainability and affordability the main attention of the Project should remain in handpump technology where the prospects of sustained, village based O&M still are better than in the piped supplies.

(iii) A project of this type and at this stage needs a lot of innovative thinking during the implementation because all can not be written in the project document and all that is written in the project document is not implementable. In this respect the Project has been supported by various committees but contribution has been small. FINNIDA missions have visited the Project and have obviously been of great assisstance in defining the approaches but being representatives of the client (to the consultant) has surely limited the free flow of ideas. The evaluation mission has had similar limitations. It could be beneficial to consider advisory missions - impartial and highly professional - visiting the Project maybe once a year to advise and assist the implementors.

Specific Comments

Executive Summary, para 2: Cost recovery should also be included.

Executive Summary, para 7, last sentence: Proposed to read :"For the piped schemes in general increased community participation with sufficient support and supervision is emphasized".

Pg 2, development objective: In view of the failure of the Government of Tanzania to meet its obligations, particularly the financial, it is obviously not correct to state that the objectives of the Project have been "realistic and appropriate". The true and realistic capability of GOT should have been taken better in to consideration in the project document.

Pg 3, project strategy: The last item in the list of the main features of the strategy - gradual transfer of responsibilities to beneficiaries - does not reflect the strategies presented in the project document in the right way although it may describe the present actual approach. Particularly with regard to piped schemes, the project document does not call for transfer the responsibility of implementation and O&M to the beneficiaries, only their participation.

Pg 8, transportation: The transport provided through the Project is substatial: 36 vehicles to be handed over to MAJI. Considering the normal situation in other MAJI offices or any other government offices, this is excessive and has lead to a rather uncontrolled use of transport and excessive use of spares, a situation which can definitely not be sustained by the government when the support ceases.

Pg 9, vehicle spare parts: As long as the Project (meaning in this case the Project Coordinator) is given the responsibility to provide transport support, the Project should also maintain control over the spares used for the transport pool vehicles which form the main part of the transport fleet. The same applies to the maintenance of these vehicles (pg 11).

Pg 11, garages: It is apparent that the present good condition of the vehicle fleet is more a result of continuous supply of new vehicles rather than good maintenance. The performance of the garages has deteriorated considerably after handing over to MAJI.

Pg 15, removed NIRA 76 pumps: What happens/will happen to the removed NIRA 76 pumps? Most of them must be about 4-6 years old and many still in working condition.

Pg 19, studies on Kitangari and Makonde Plateau W/S: There should be two separate studies (a) Study on the electrification of Kitangari W/S, (b) Study on administrative arrangement of the Makonde Plateau Water Supply. Both studies should be carried out during Phase V.

Pg 21, last para of chapter 2.5.3: Add:"In future serious consideration should be given to the fact that the procurement from abroad through the consultants channels will decrease and eventually stop."

Pg 37, Advisory Committee: It appears that organizing the Advisory Committee meetings has been one of the major problems. It seems to be difficult to arrange persons stationed in Dar-es-Salaam to travel to Mtwara or Lindi. It should be considered to arrange some of the meetings in Dar-es-Salaam.

Pg 41, recommendation 55: Although fully justified this recommendation may not be fully realistic since it deals with national policy issue.

MTWARA-LINDI RURAL WATER SUPPLY PROJECT
PHASE V

FINNWATER CONSULTING ENGINEERS

COMMENTS TO THE

REPORT OF THE EVALUATION MISSION
JANUARY-FEBRUARY, 1990; DRAFT

0. GENERAL COMMENTS

The findings and recommendation of the Evaluation Mission are in general correct and feasible. We would however like to highlight some of the causes that have affected the overall performance of the Project and to give some comments on the findings and recommendations of the Mission.

A. The Project was started with a **Project Document** draft that was not accepted by all the parties concerned. This caused a somewhat confused situation for managing and planning of the project activities during 1988 and for the planning of the activities for the rest of the project period:

- It is obvious and can be seen that the Tanzanians were not sufficiently motivated and committed to realize the objectives of the first Project Document draft. In this sense the Project actually started only during the last quarter of 1988.

- Eventhough the scope of the Project was not drasticly altered compared with that of the first Project Document draft, the time budget of expatriate personnel was, however, reduced by appr. 30 % of the original number of manmonths. This was carried out by reducing the duration of certain key posts . More interesting is that the reduction was directed at posts, which were selected based on some other reasons than the existing situation and the real readiness of the Tanzanians to take over the corresponding tasks. This has led to a situation were the remaining expats have been compelled to spread their efforts and supervision to areas which were not originally in their job descriptions.

- The strategy of the Project was changed from "working closely with the local Maji organizations" to "full integration into the local Maji organization". This integration process was started delayed along with the approval of the final Project Document draft at the end of 1988.

B. The field of the organizations involved in the development of water supply in the Project area is complicated. Certain key organizations belong administratively to other ministries or they are under local governments. Different organizations naturally have their preferences and allocate their budgets accordingly. This leads to a situation which is not optimal to promote the joint efforts required for improving the water supply services in the area.

C. The integration of the two organizations (Project/MAJI) has been a slow process. Certain inertia exists when uniting organizations of which one has traditionally been result and implementation oriented having an existing productive and functioning organization and the other one has been less productive and less effective (mainly due to lack of sufficient budget allocations and partly lack of tradition and motivation). It is also understandable that the recipient organization is afraid of including the activities and responsibilities of such an organization:

- in which the responsibility of activities has previously lain with the expats (who were provided with more efficient resources than the receiving organization)

- which brings with it new responsibilities causing extra work, closer supervision by "outsiders" and pressure to get results. The situation is worsened, as the new, extended activities should be financially covered by practically non-existing local budget allocations

During the past Phases of the Project FINNWATER had trained Tanzanian staff to run and do specialized work in the workshops, garages and storages. Strict followance of the MAJI regulations on the acceptable minimum educational level of the permanent personnel has, however, led to the rejection of this competent staff without formal education. This has on its part hindered the smooth integration and utilization of existing capabilities and potential of local personnel.

New ways of working and attitudes tend to build up slowly. This applies to both the Finnish and the Tanzanian personnel in the Project. Considering the many constraints the integration has, however, proceeded surprisingly well.

D. The vague concept and authority order of Steering and Advisory Committees has caused inefficient decision making. In practice the Steering Committee has been regarded as the highest decision making body instead of the Advisory Committee. Both interpretations are justified. We completely agree with the Mission that the decision making procedure in all levels of the Project must be clarified and improved.

E. The Mission has quite correctly noted that the job description of the Project Co-ordinator doesn't sufficiently facilitate the execution of all targets of the Project. The national project directors (RWEs ?) should have been nominated and defined to be more clearly responsible for the overall integration and followance of national guidelines and existing MAJI procedures and manuals. The vague concept of "Project" also contributes to the unclear responsibility relations.

1. DETAILED COMMENTS

Executive summary, Para 4

During Phase V the Project has gradually changed its approach from implementation oriented to institutional building. Today the Regional and District MAJI organizations are implementing the programmes prepared jointly together with MAJI and Advisors. All the responsibilities of implementation has been transferred to MAJI. The Project is arranging technical material and transport support and strengthening of the institutional building.

2.2.2 Followance of..., Para 3, Para 5,6

Total integration is an ambitious target. As long as there is not enough local funds within the MAJI organizations to carry out their tasks straight expat involvement and thus parallelism may exist.

Separate budgets for MAJI and the Project also create parallelism to a certain extent. Therefore it should be considered, if a part of the Finnish funds could go straight as a cash fund to the Regional and District MAJI budget.

Project has made efforts to transfer the financial responsibility to Government of Tanzania, but during the parliamentary decisions the budgets have been cut down from the proposed ones. And even the approved funds have not been made available.

2.3.2.1 Planning, Para 5, 6

Work Plans for 1989 and 1990 are comprehensive and general. More detailed sector targets have been presented and scheduled in the quarterly work plans for the various fields of activities.

Procurement procedures do exist and will be documented.

2.3.2.2 Follow-up

The smaller schemes to be rehabilitated have been visited and the follow-up is based on progress reports, which District Water Engineers have presented in monthly meetings. The supervisory staff of Regional Water Engineer's office has followed-up the rehabilitation with frequent visits depending on problems in the site. Within the Mkunya-Makote rehabilitation sub-project weekly site meetings were held.

Follow-up safaris to the construction sites of point sources are arranged once a year in November-December. Water works rehabilitation is monitored monthly in District Water Engineer's Meetings which are arranged separately in both of the regions. The persons in charge, mainly the District Water Engineers, are responsible for reporting of the rehabilitation and other water supply activities within their districts. Unfortunately it has been very difficult to motivate the District Water Engineers to attend the meetings and to get the required reports prepared.

MAJI systems and procedures are applied in monitoring the O & M of piped water supply schemes. The problem is, how to get the people in charge to follow the system.

2.3.3 Transportation, Para 3; 2.3.5 Workshops and Garages - Para 8

Because of the reduction of the Expatriate personnel the post of Workshop Officer was rescheduled to cover only a half of the Phase V period. With the reduced number of expats it has been impossible to effectively control the use of the vehicles. Originally the post was supposed to be up to the end of Phase V. Therefore there is a need of a short term consultant to arrange management training for workshop and garage personnel in their everyday work and to prepare manuals.

New regulations for the use of the FINNIDA vehicles have been prepared and will be finally approved in the next Advisory Committee Meeting.

2.4.4 Piped Water Schemes, Para 2, 3

All the standard MAJI procedures are in use.

In water works rehabilitation the selection of first stage schemes were done without proper feasibility studies. This was due to the late start of the Phase V:
- preparation of feasibility studies would have caused additional delay in the supply of materials to be imported
- materials needed for the rehabilitation of waterworks in most cases comprise of common sized PVC pipes and standard pumping units. It is expected that most of the first stage schemes will prove to be sustainable including also O & M costs in the calculations. For the other schemes checking will be carried out.

2.6.3 Management Training

The Management Training which has been carried out sofar is based on Case Studies dealing with the actual water supply problems in the Project area. It is our opinion that management training has been concrete enough and has dealt with real-life problems.

Training of the middle-level managerial and supervisory personnel (District Water Engineers, Supervisors, Foremen) conducted at Rwegarulila Water Research Institute, Dar es Salaam and at Ruaha Centre of Training for Rural Development is also based on concrete training in management.

2.6.6 Government of TANZANIA policies

Managers/Supervisors in MAJI are guided by certain procedures, rules and regulations. These procedures will are followed also in Training. The problem, however, is that in the training sector the Ministry of Water doesn't have any National Policy.

2.6.7 Evaluation of training requirements

It is most probable that three civil engineers from the Regions will apply for a scholarship at Tampere University of Technology. Of course this will worsen the situation of personnel resources as three Head of Sections will be away. This manpower training and development programme has been agreed between the Government of Tanzania and the Government of Finland. And it is one of the ways of motivating young professionals.

2.7.2 Concept and Working Approach..., Para 9

Community participation needs strong support from the Project both during Phase V and early Phase VI, but step by step the community participation promotion should become independent from the donor inputs. A new approach will be prepared during Phase V.

2.7.5 Organization and Financing...., Para 2

The estimated community participation budget for the year 1990 is about T. Shs. 4 Million, which is about 13 % of the training budget (Finnish funds).

2.7.6 Special Considerations, Para 3

The replacement of an old pump with a new one costs about T. Shs. 100 000 including the price of the pump. It is assumed that the pump will last from 5 to 10 years when maintained very well.

2.8.2 Inputs of the Government of Finland, Para 5

If the Project had not paid certain local costs there would have really been acute shortages, for example diesel etc. which could have hampered the whole programme of the Phase V seriously. Avoiding "topping-up" the local component is an impossible practice, it there are not enough local funds available.

2. COMMENTS ON THE RECOMMENDATIONS OF THE EVALUATION MISSION

14. Surveys have to be conducted only during the dry season. Construction can be conducted at any time of the year.

26. Pumps and equipment used in rehabilitations are common in the country, therefore the spareparts are, at least to some extent, available in the country. For instance for Movi pumps and Lister diesels there is an agent in Dar es Salaam and also MAJI has got Movi spares in Kurasini.The normal local purchasing channels already do exist.

45. Realistic cost estimates have been separately prepared by the Project to be requested from FINNIDA, Ministry of Water, Districts and Communities. Central government and district authorities have been informed in time about the requirements for funds. Estimates of O & M costs have been submitted to respective local authorities.

46. Yearly action plans have been adjusted with the approved budget as soon as it is available somewhere in July-August. The problem with the action plans is that they tend to be too optimistic. Local funds are also regularly deducted and it makes action plans even more unrealistic.

56. The beneficiaries' participation has just started in 1989 by establishing VWSC's and Village Water Funds, the villagers have been activated to take part into the works in water sector.

3. SPECIAL COMMENTS ON COMMUNITY PARTICIPATION SECTOR BY DR. SAMUEL BUSHIRI

A. Introduction

As Community Participation - new approach - was introduced late in Phase V of the Project i.e. October, 1988, it is the first open opportunity for the C.P. team of the Project to receive a group of experts in the field, to study, consider and evaluate their work and make such interesting comments and observations though after only a short visit to the programme. For us it has been the most valuable contribution from outside the Project so far.

B. Objectives

The Mission have given their comments on C.P. objectives as follows:

(i) Objectives for: Active involvement of community in all stages of planning, design, construction, operation and maintenance as well as extension or rehabilitation of their water supplies through development of community based operation and maintenance system and training in preventive maintenance were considered adequate and appropriate due to dwindling of central government and local government financial contributions.

This I find well observed but the contribution by the local communities especially during this time of inception should not be over expected because the contribution in cash would be very small to begin with due to constraints such as failure of the co-operatives to pay for crops and the habit that "WATER IS FREE" either paid for by the government or someone else.

Therefore we should not forget that this is an attempt to charge the community towards a new direction and as a working experiment it should be given time to grow and show results.

(ii) for the Health Education objective the Mission felt it to be relevant but its achievement should be the responsibility of AFYA.

This I find to be proper but to leave the success or failure to be the responsibility of AFYA alone I find it to be not practicable. AFYA will only provide the expertise and we the extension side as far as water supplies are concerned. What is aimed at is to make true the saying that:

THE EXISTENCE OF WHOLESOME WATER SUPPLY SHOULD BE RENDERED MEANINGLESS UNLESS IT IS MATCHED BY THE EXISTENCE OF HEALTH SURROUNDINGS.

This I find the main reason for the involvement of the C.P. Training in Public Health and Sanitation. I find to leave its achievement to AFYA would not take the community to its desired destination also I am of the opinion that the community should be assisted in achieving their end through training supported by the Project at least for the time being.

(iii) For the objective of economic development activities I agree with the Mission's view that we should not expect much during the infancy of the villages but I am of the opinion that we should not regard this objective as wholly unrealistic.

I think there is an opportunity to introduce the economic objective gradually in the villages for small projects such as gardening, construction materials such as burnt bricks for housing and water supply improvements etc. To introduce the economic objective at a later stage other than now would have its problems. May be the Mission was thinking about big economic ventures which require big capital.

C. New Working Approach and Concept

I agree with the Mission that much work has been done by the Project already in Phase IV to involve the communities in the different stages of the development of point source supplies and that C.P. activities suffered due to delay of C.P. recruitment of the leading personnel for Phase V.

Recommendation NO.41

I would like to agree with the Mission that more light should be shown on quantative data on for example participation on health education etc. which really existed but are not shown separately as our Mobilization Skills Courses are inclusive of health education, sanitation, forestry and a forestation, community development etc. so to speak they are integrated training courses.

The observation on a thorough and well implemented FOLLOW-UP system to be developed is totally accepted. This has been so planned in the whole Community

Participation Programme. For example the months of March, April and May are follow-up months in the Pilot Divisions and this work has already begun.

On financing while I would like to agree with the Mission but I would also like to refer to No. 2 (i).

Recommendation NO.42

The Mission's Recommendation No. 42 to establish procedure for the follow-up of Community Participation in the pilot areas with collection of relevant quantitative data.

Revise the working approach and plan a sustainable organizational set up and financing system for continuity of community participation promotion before proceeding together areas is accepted but again I would refer to No. 2 (i).

D. Role of communities in development and management of point source supplies

Recommendation NO.43

The Mission could not have had a better understanding of the situation than this. It is absolutely true that awareness of the part of education and information through the leaders in the villages. The ability to contribute on the part of the villagers again is limited to situation which are beyond their control.

It is true we have not given priority to Agreements before creating awareness also because there are no standard agreements in the overall National Community Development Approach in Tanzania. Therefore to create one, would need to create awareness and justification for it before introduction. We have however now reached that stage and we are in the process of introducing a couple of forms and agreements in the procedure.

D. Organization and Financing of Community Participation Promotion

I agree with the Mission that the burden on the C.P. Team of the Project is too heavy for two people only. There should be efforts to recruit more personnel taking the example of other donors in Mobilization Skills Training during the remaining period of Phase V.

3. ADDITIONAL COMMENTS BY THE PROJECT PERSONNEL

Comments to the Executive Summary and General about Phase V

1. Institution building and community participation aspects will be emphasized.

2. Revised organization charts will be prepared.

3. Procedures for planning, budgeting, follow-up and management of stores, workshops and garages will be prepared.

4. Effective computerized management information system will be prepared as a short-term consultancy basis.

5. All the standard MAJI procedures are in use.

6. Electrification study will be prepared as a short-term consultancy basis.

7. Documentation of O&M procedures and procurement of spares will be improved.

8. Budgeting and follow-up systems of the local component will be improved.

9. Practical management procedures have been worked out during the Phase both in the management courses and on the job training. The work will still continue.

10. Integration has taken place as far as possible. If there is any parallelism it will be settled.

11. Project has made efforts to transfer the financial responsibility to Government of Tanzania, but during the parlamentary decision the budgets have been cut down from the proposed ones.

15. Work Plans for 1988-1990 are general. The more specific sector targets have been prepared separately. There has been some delays in getting material for rehabilitation programme, therefore it has not been possible to make realistic time schedules to them.

16. Procurement procedures exist and will be documented.

17. Follow-up procedures for finance, costs, construction and O&M will be developed.

18. MAJI systems and procedures are followed for monitoring the O&M of piped water schemes. Problem is how to get the people in charge to follow the system.

19. New regulations for the use of FINNIDA vehicles have been prepared and will be finally approved in the next Advisory Committee meeting.

20. Integration of all the stores will be completed.

21. It is proposed to make an administrational study of Makonde Water Supply as a short term consultancy basis by the end of Phase V.

22. It is proposed to prepare a procedure to cover all the costs of water supply systems.

23. Community participation needs strong support from the Project both during Phase V and early hase VI, but step by step the community participation promotion should become independent from the donor inputs. A new approach will be prepared during Phase V.

24. Both of the Community Participation Development Officers are employed by the Project.

25. The estimated community participation budget for the year 1990 is about TAS 4 million, which about 13% of FINNIDA's training budget.

26. The replacement of an old pump with a new one costs about TAS 100,000 including the price of the pump. It is assumed that the pump will last from 5 to 10 years when maintained very well.

27. One Honda trail motorbike has been purchased to each of the District Community Participation Officers to run the follow-up of C.P. work under District Water Engineer in water supply sector.

28. New strategy for sanitation for the remaining period of Phase has been prepared.

29. The tasks of the Training Advisor during the second half of the year 1990 will be taken care by the local counterparts and as short term consultant basis.

Comments on the Evaluation Mission Report
Recommendations:

1. Efforts have been made to get enough funds to the Regional and District Budgets in water supply sector to operate and run the water supply systems. It means that in handpump sector, it has been concentrated to pump replacement and in water works sector rehabilitation of sustainable piped water schemes.

2. During the remaining period of Phase V the Project will concentrate in strengthening the management capabilities of local MAJI organizations. Strengthening of management capabilities of MAJI staff has been organized through courses in local institutions. Regional Water Engineer of Lindi has also participated a course in the Netherlands.

3. Sectoral plans will be prepared more detailed and planning methods will be described in Manual prepared by the end of June, 1990. In ground water sector the reports are supposed to be detailed i.e. indicating the villages to be served.

4. The plans and programme will be taken to Advisory Committee for approval.

5. The smaller schemes to be rehabilitated have been visited and the follow-up is based on progress reports, which District Water Engineers have presented in monthly meetings. The supervisory staff of Regional Water Engineer's office has followed-up the rehabilitation with frequent visits depending on problems in the site. In Mkunya-Makote rehabilitation they hold weekly site meetings. Procedures for handpump well sector at O&M stage will be prepared by 1990. MAJI systems and procedures are followed for monitoring the O&M of piped water supply schemes. Systems will be developed to the MAJI operational water supply schemes and to the schemes to be rehabilitated by June, 1990.

6. Planning of a Management Information System (MIS) will be prepared by the Project during Phase V as a short term consultancy basis.

7. New regulations to use FINNIDA vehicles will be proposed by June, 1990.

8. Integration of the vehicle spare parts store in Mtwara Region will be completed by June, 1990.

9. Store management and storekeeping procedures will be documented by June, 1990.

10. Through training and by combining the estimation activity with other planning the capability of staff to estimate spare parts and materials demand will be improved.

11. The training of workshop and garage personnel at all levels has been carried out and will be continued to increase the confidence of personnel in their own capabilities.

12. Management procedures to run the workshops and garages will be prepared by the Project as a short term consultancy basis.

13. Improved procedure to follow-up the achievements of outputs in the point source supplies will be prepared. The survey sites will not be constructed without the approval of the regional Hydro-geologist.

15. The emphasis in handpump sector is in pump replacement. It will be prepared a proposal to Advisory Committee the topping-up of inputs in the pump replacement to improve the progress.

16. In water works rehabilitation the selection of first stage schemes were done without proper feasibility studies. This was due to the late start of the Phase V: preparation of feasibility studies would have caused additional delay in ordering overseas materials and however, materials needed for water works rehabilitation are common sizes of PVC pipes and mostly similar pumping unit for every scheme. Most of the first stage schemes can however, be considered to be sustainable after calculating also O&M costs for them. For the other schemes checking will be carried out.

17. The knowledge of the pump attendants has been utilized since the start of the rehabilitation , because they are still existing even if the scheme might have been nonfunctional for several years.

18. Electrical and mechanical installations of Mkunya-Makote water supply will be checked and the scheme will be test run in April-May by the short term consultancy basis.

19. The study of Kitangari electrification will be carried out by a short term consultancy basis during Phase V.

20. New O&M procedures will be developed according to new approach towards village level operation and maintenance in point source water supplies. The proposed Agreement Letter and Handing-over certificate clearly indicates how should the &M activities be carried out.

21. The follow-up of village level operation and maintenance is arranged economically through District Water Engineer's Offices. A follow-up form has been developed and the target is that District Water Engineer will submit the form of every scheme, which is in operation in monthly District Water Engineer's meetings. Follow-up in the village level O&M is extremely important so that short cuts are not done and service period and maintenance is regular.

22. All the pump attendants are participating in the rehabilitation of waterworks.

23. An agreement between MAJI/FINNWATER and respective village governments has to be signed. In the agreement beneficiaries have to take responsibility of supplying or at least paying normal running spares. Major maintenance will be arranged through the District Water Engineer's offices. In some small schemes with only one pumping unit the spare units are kept in regional stores. The responsibility of follow-up of regular maintenenace lies District Water Engineer's offices.

24. The procedures to arrange the spareparts flow and cost recovery will be worked out in to details.

25. In MAJI operated schemes MAJI O&M manuals are utilized. The development of new manuals for the schemes to be rehabilitated will be carried out during the rehabilitation.

27. Manuals for Lister diesel have already been transferred into Kiswahili and translation of pump manuals has started. The translation work is continuing as part of the training component.

28. The utilization of real-life problems are used in training for example in management training courses at IDM and Ruaha, when running management courses.

29. Training evalution and follow-up system will be developed on the basis of the on-the-job performance and in upgrading training by

National Trade Tests. Syllabi will also be amended and revised in the light of experience.

30. Training materials will be written so that it will include performance objectives. Each sector shall scrutinize their materials.

31. Collaborating institutions will be provided with a detailed training module format to ensure a quality standard of the training materials prepared by the others.

32. Training sector is going to collect the procedures, rules and regulations which impact on training and manpower development.

33. Training sector will evaluate the training and eduacation possibilities to satisfy the needs of the organization and the individual. In Tampere University they keep yearly Post Graduate Course for Water Engineers.

34. Summary of the features and activities of other water supply projects visited in Tanzania will be prepared by May, 1990.

35. Objectives for the training and manpower development sector in Phase VI will be elaborated including the establishment of a sustainable training delivery system.

36. Cost-sharing formula for the training sector will be started during Phase V.

37. Development of the performance-oriented training materials will continue.

38. The so-called follow-up seminar has been conducted at IDM, Mzumbe. This second phase top manager's training has been very concrete and deals with real-life problems. Leadership training courses in Dar es Salaam and Ruaha are also based on concrete training in management. Management training is based on case studies of real life in the project area.

39. Technical training courses will continue as scheduled in the Comprehensive Training Programme.

40. English classes for typists and trainers has started as evening classes. Office attendants are also attending the course.

41. Outputs and indicators in community involvement will be formulated quantitatively and more accurate.

42. Follow-up of community participation in the pilot areas is going on. The working approach and plan to a sustainable organizational set-up and financing system for continuing community participation will be developed.

43. The Project has prepared the procedure for the formal agreemant and handing over of a point source supply.

44. New strategy for sanitation for the remaining period of Phase V will be defined.

45. Realistic cost estimates have been prepared by the Project separately required from donor Ministry of Water, districts and community in water supply sector. Central government and district authorities have been informed on time about the requirements of funds to be taken into account in the respective budgets. Estimates of O&M costs have been submitted to respective local authorities.

48. If the Project had not paid certain local costs there would have really been acute shortages, for example diesel etc. which could have hampered the whole programme of the Phase V seriously. Avoiding "topping-up" the local component is an impossible practice, if there are not enough local funds available.

49. The Project will replan the internal project organization and gives accurate descriptions of the duties and lines of reporting of each person by May, 1990.

50. Active Advisory Committee meetings will be held quarterly to comment about the progress of the previous quarter and to approve the plans for the following quarter.

51. A representative of RIPS will be invited to attend the Steering Committee meeting.

52. The roles of the Committees and the scope of methods of monitoring will be defined.

53. The contents of the quarterly and annual reports will be revised to be approved by the Advisory Committee in May, 1990.

54. The budgeting system will be revised to follow the items and numbers used in the project document in May, 1990.

4. COMMENTS BY MR. P.A. MOKIWA, REGIONAL WATER ENGINEER OF LINDI

A. General

The draft report has covered almost all issues pertaining to the activities of the Mtwara-Lindi Rural Water Supply Project. The report has provided through its "observations" and "recommendations" a catalyst towards the attainment of an effective approach and methodology in the implementation of the activities as spelt in the phase V Project Document. All the recommendations are aimed at ensuring sustainability af the water supply infrastructure in both development as well as operation and maintenance. The biggest snag is the short remaining period before the end of phase V (hardly eight months) leave alone the departure of some key expatriates, some in June 1990 and others in September 1990. Phase V was to take-off in January 1988 up to December 1990 (three years) but due to delay in reaching concensus on the Project Document at least the implementation of the phase started late 1988.

B. Specific Issues/Areas

1. Refer sub Chapter No. 2.3.2.2 Follow-up (P.6)

(a) Second Paragraph - on follow-up system (P.7)

There was quite a substantial time lag when the water works rehabilitation programme was envisaged and procurement of the required materials for rehabilitation effected.

In Lindi region, at least each of the scheme to be rehabilitated was visited thrice during the early stages of planning such works. The snag came after the identification of the rehabilitation needs and ordering of such materials.The technical aspect of the concerned project were thoroughly discussed between MAJI and the Advisory personnel. The part sentence ".....there seems to be lack of interest towards this activity among both MAJI and Advisory personnel"..... seems to be too general and unnecessary. There is high degree of enthusiasm and diligence on Waterworks rehabilitation programme; maybe it is difficult to access the degree of such high "interest" in the eyes of both, the "accessor" and the "accessed".

(b) First Paragraph - on data, storage and processing (P.8)

Indeed there is large quantity of data collection, use of computers will facilitate effective data storage and processing. This goes with Recommendation No. 6 on the development of a management information system. The observation and recommendation is highly commendable and timely thought of.

2. Refer sub Chapter 2.3.3. Transportation (P.8)

(a) Second Paragraph - on introduction of payments for the use

of vehicles (P.9) and also on Recommendation No. 7 (P.9) objective for payment for the use control and effective use of such vehicles. However, there are two snags on the payment system. Firstly, it is stated ..... "The money to be collected is proposed to be returned to the local component"; here it is not clear as who will provide the money for transport hiring system so that the same very money is returned to the local component. Secondly it is difficult to comprehend particularly with the existing government regulations pertaining to budgetted local funds to be used for transport hiring system. The Evaluation Mission has observed lack of local funds as one of the hindering forces in this Phase V Project activities; naturally it would still increase the demand for more local funds so as to cater for transport hiring system if these funds will have to be provided as a local component even if the Government of Tanzania regulations will allow such system to operate.

3. Refer Chapter No. 2.3.4. Stores (P.9)

(a) Fourth paraghraph - on ordering of spare parts for mechanical equipment to the regional mechanical workshop officers (P.10) and also on Recommendation 10 (P.11). This is a very crucial issue. Indeed there is a need to improve the capability of staff to estimate spare parts, but considering the fact that it is almost seven months or so since the mechanical equipment stores were divided among the two regions, Mtwara and Lindi, yet there still exist problems in estimetion of spare parts requirement. The system of preparing orders of spare parts from abroad has been introduced during the late hours of phase V of the Project, naturally considering the prviously used system where the Project expatriate Advisors used to prepare such estimates , more time is needed befor the advisors will appreciate the competence; and expeditiously approve estimates of spare parts prepared by the local mechanical engineers. With time such problems will lessen.

4. Refer sub Chapter No. 2.3.5 Workshops and Garages (P.11)

(a) Fourth Paragraph - on the two mechanical engineers with degrees from an Indian university (P.12).

It is not clear as to why there is specific mentioning background pertaining to where the two mechanical engineers have graduated. It is thought that such mentioning ....."with degrees from an Indian university....." is not necessary and maybe omitted.

5. Refer sub Chapter No. 2.5.2.2. Piped Water Supplies (P.20)

(a) Second paragraph of the sub Chapter on cost rcovery (P.20).

Considering the low level means of income prevailing in most rural areas in the two regions of Mtwara and Lindi, we

better speak of "Cost sharing" rather than "Cost recovery" for the time being during the beginning of planning for any piped scheme.

6. Refer sub Chapter No. 2.6.9 Training and Manpower Development During Phase VI (P.27)

(a) First Paragraph of the sub chapter on the training and manpower development sector (P.27).

It is mentioned that the opinion of the mission is that this sector is a FINNIDA activity, not a joint one.

".....No feeling of "ownership" for this sector was detected in MAJI".

The general feeling is that MAJI also participates in this sector through its regional training programme in which craftsmanship courses in masonry, survey, auto mechanics, water laboratory, pumps mechanics, etc are being conducted at regional level. The only difference with the training of the project is that it caters for all levels of technical cadres from graduate engineers and scietists up to village well care takers.

Under such area it would be worthwhile to mention of how the regional training programme can go hand in hand with the Project Training Programme.