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INCEPTION REPORT

Domestic Water Supply Programme
Morogoro Region



DHV CONSULTANTS B.V.

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1. INTRODUCTION

1.1 Plan of Operations

The Plan of Operations, as prepared by the Netherlands authorities in cooperation with the district and regional authorities and the consultant, states:

"The Programmes will commence as of March 1st 1993 with an Inception Period of at least three months, but not exceeding six months, during which bi-lateral arrangements can be finalized and recruitment and mobilization of personnel undertaken. Equally, elaborations on the proposed implementation plans submitted by the District and Regional Authorities will take place in consultation with the Consultants....."

"This Plan of Operations is based on the proposed District Domestic Water Supply Programmes submitted by Shinyanga and Morogoro Regions. Therefore this document has to be read in conjunction with these respective proposals (see Volumes A, B and C).

"Due to the fact that the new Domestic Water Supply Programmes had to be formulated under an enormous time pressure they need to be subjected to scrutiny and further detailing. It is evident that re-planning during the Inception Period should be limited to activities for the first year only. Plans may need re-adjustment during the year, if implementation requires so to do, in order to ensure that the objectives are met. This flexibility is to be effectuated by the Programme and its Implementors....."

"During the Inception phase of maximum 6 month duration, a number of activities were to be carried out, which are more or less conditional to programme implementation."

1.2 Terms of Reference for the Inception Period

The Terms of Reference for the Inception Phase require the Consultant in general *"to prepare in close liaison with the Programme Implementors an Inception Report which documents the achievements with regard to the respective objectives of the Inception Period, and outlines the strategies for programme implementation, including a workplan for the remaining period of 1993 and a draft annual plan and budget for 1994."*

The specific objectives of the inception period are defined in the Terms of Reference set out in Appendix I to this report.

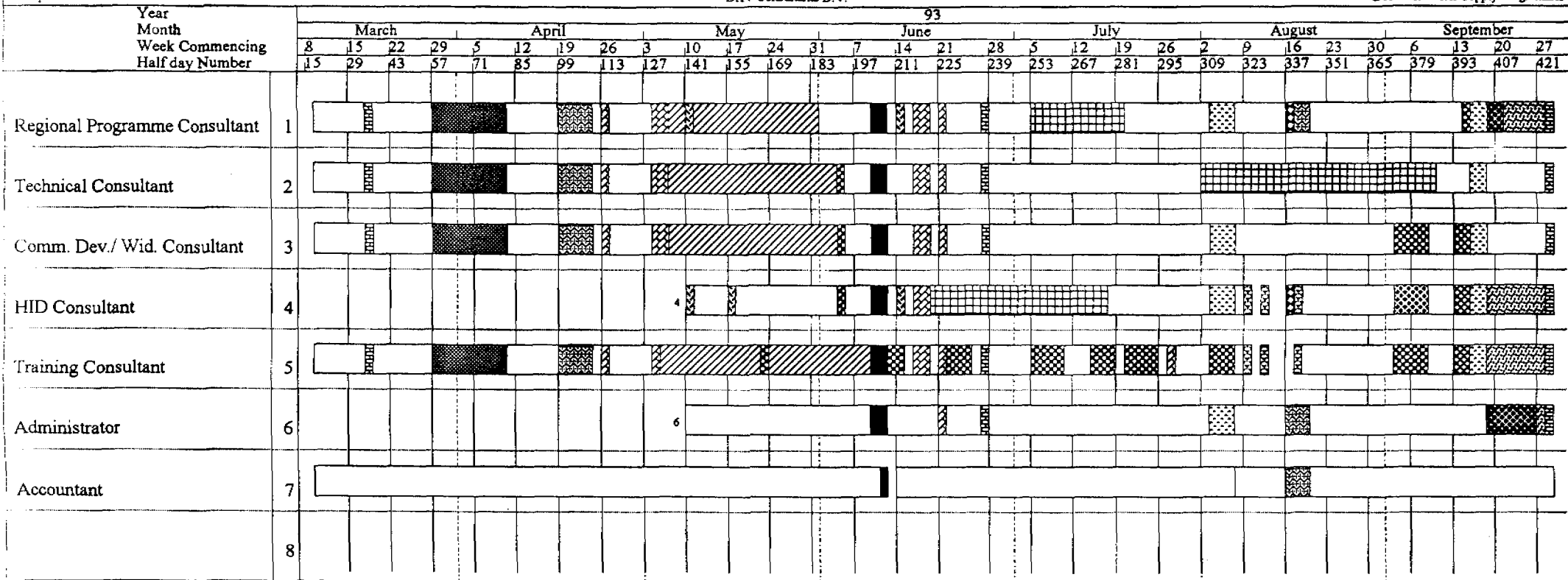
This document reports on the achievements related to these specific objectives. The activities carried out and their results have for easy reference been grouped under ~~three~~ ^{two} headings reflecting the various levels of responsibility on the Consultant: (1) Activities implemented with support from the Consultant including objectives no. 1, 2, 3, 4, 5, 6, 7, 8, 9, 11, 13, 14, 15 and 16, (2) Consultant's specific responsibilities including objectives no. 10, 12, 17 and 18. *e. de v. K...*

Consultancy Activities Inception Period

28-Sep-93am

DHV Consultants B.V.

Domestic Water Supply Programmes



Activities

- | | | | | | | | | | |
|--|------------------|--|-----------------|--|------------------|--|------------------|--|------------------|
| | RWSSC meeting | | Prep. in office | | Consult Distr. | | Districts meet. | | Reg.Meeting |
| | 3 mnth dist.plan | | Consult RNE | | Consult. meeting | | Holidays | | Workshp.Dist/Reg |
| | Nat. meeting | | GIS workshop | | Planning '93/'94 | | Inception Report | | Field visit |
| | Health Dist/Reg | | Manpower survey | | | | | | |

Drawing ref

Project ref a:\consult.pdb

2. ACTIVITIES IMPLEMENTED WITH SUPPORT FROM CONSULTANTS

2.1 Finalization of the Plan of Operations

Although the Inception Phase was to start on March 1, 1993, when it was assumed that the Plan of Operations as the basic Programme document was in place, this was only partially true as at that date the Plan of Operations was still in the process of being revised. More details which were to be worked out during the Inception Phase had to be incorporated in the document. Therefore, the Districts were requested during a Regional Steering Committee meeting in mid-March, in which the Netherlands Embassy was present, to prepare the details within three months.

District meetings

After the Steering Committee meeting and up to April 8, meetings were held in the Districts to plan for completion of the ongoing activities. During the implementation of these activities the new features of the step by step approach as well as the administrative and financial systems were tested. At the same time the districts worked out the detailed description of the Programme parties' role and tasks and reported in a joint districts meeting on April 19, in which the Programme Institutional Framework was put in place.

Misunderstanding

Meanwhile, a misunderstanding was discovered in relation to the level of detailing in the Plan of Operations itself and the contents of the Inception Report. The Consultant, referring to the Terms of Reference of the Inception Period and the description of the interim period activities in the draft Plan of Operations, was of the opinion that the Plan of Operations would be the Project Document to be signed between the governments of Tanzania and the Netherlands and should thus only contain the outlines of the programme activities, while the Inception Report should contain the detailing required for the actual implementation of the programme activities.

On May 10, a meeting was held in Dar es Salaam at the Netherlands Embassy where the above issue was discussed and clarified. The details would have to be included in the Plan of Operations and the Inception report would merely be a progress report over the period. Thus the Plan of Operation would be a project document with instructions for activities to be done in the Inception Phase but would, in addition, also contain the results of these activities.

Approval by Regional Steering Committee

On June 26, a Regional Steering Committee meeting approved the revised version of the Plan of Operations, which was subsequently submitted by the Regional Development Director to the Ministries of Water, Community Development and Health, as well as to the Prime Ministers Office and the Netherlands Embassy.

Further adjustments

A National Steering Committee meeting was held on August 16, 1993 to discuss the Morogoro and Shinyanga Plans of Operations. During the meeting the Netherlands Embassy commented that there was still a need for substantial adjustments. This was confirmed in a letter from the Embassy to the Regional Development Director detailing the comments.

The adjustments to the Plan of Operations were made during the visit of Mr. M. Schröder to Morogoro from August 23 to 28, and presented for discussion in a workshop for the District Management on September 15 and 16. The changes were agreed to by the participants. The revised plan was subsequently presented to the Regional Steering Committee on September 28. The Committee decided to approve the plan in its revised form. Shortly the RDD will officially submit the revised and approved version to the Prime Minister's Office and the Netherlands Embassy.

During the District Management workshop the District and Regional Plans for 1993 (September through December), and the 1994 Annual Plans were submitted and discussed. These plans were subsequently approved by the Regional Steering Committee on September 28.

2.2 Step-by-step Implementation Procedure

During the inception period the step-by-step implementation procedure for the development of hand pumped wells and piped supply systems as well as the development of user groups has been worked on. The Consultants have worked in close collaboration with the districts and the region keeping the requirements for the new phase of the Programme in mind. The current procedure as attached to the Plan of Operations (Appendix V) has been discussed in a number of workshops as well as in a series of meetings at district level.

Revised features

The result of the efforts in developing the step-by-step implementation procedure is that the number of steps have been reduced from 17, as used in the previous phase of the programme, to six only. Furthermore, the procedure is now better reflecting the bottom-up approach applied by the programme in the current phase. The detailing of the activities, including materials to be used, quantifiable outputs and relevant indicators in each step, has been increased to better guide both water users and the implementation facilitators in the implementation process. A time scheduling for the procedure has been developed illustrating the required time for the whole process of developing a new well and the individual contributions of the involved departments.

The described procedure also applies, with modification, to rehabilitation of wells and construction and rehabilitation of piped systems. These type of activities require, however, in some cases the skipping of certain activities (rehabilitation of wells) or extensions of the set time frames (piped systems). For the alternative solutions of water supply, the procedures will have to be adapted when these solutions are adopted during implementation.

Testing and revision

The present step-by-step implementation procedure will be used in the completion of the on-going activities during the period September to December 1993, and be closely monitored. Based on received feedback, it will be further revised, if required. Revision may also be required when the results and details of the recommendations of the Gender Impact Study are available after the planned briefing to National level in October.

It is important to view the procedure description as a flexible instrument which should continuously be reviewed and amended since it is serving as a guideline in a very dynamic process basically determined by the various groups of water users.

Checklists

As part of the step-by-step procedure, several types of checklists have been found necessary to guide

implementation staff on their job. The various checklists required are mentioned under the heading "materials to be used". Some of these checklists have a dual function. In addition to acting as a job aid, they will also be used for collecting baseline data and subsequently monitoring data. The districts are presently actively working on developing these checklists. The Health Department has, however, already completed their checklist for the above purposes. This checklist is attached in Appendix II.

The revised description of the step-by-step implementation procedure is part of the Plan of Operations (Appendix V) but is attached to this report for easy reference (Appendix III).

2.3 Programme Implementation Management Structure

2.3.1 User group, village, divisional and district level

Upon request of the Districts in the Regional Steering Committee meeting of March 17, 1993, a visit was made to each district introducing the guidelines from the Netherlands Embassy for the New Programme and assisting the districts to define the management structure as they found suitable within the existing local government structure. The experience from the previous programme phase was used to avoid constraints in the system. In each district the system at user group and village level was worked out.

During the visit of the Consultant the planning to finalise ongoing activities from the previous phase was also put in place, emphasizing the need to make the users aware of the new guidelines and form user groups on the basis of the existing water points. Once these activities were completed and user groups formed which agreed with the new approach, the districts were to complete the planning and cost estimates for implementation of the outstanding works. The plans and budgets were presented in a joint district meeting on April 19.

The detailing of the management structure was discussed in the joint district meeting from April 19 to 22, and differences between the districts discussed. Although each district knew that there was no objection to an individual management structure for each district, the meeting opted for similar structures in each district and differences were discussed till a consensus was found.

2.3.2 Regional level

The district management structure was again discussed in a Regional meeting on June 16 and 17. A meeting of all Regional departments was held on June 21, when the Regional structure was added. The complete structure was approved in the meeting of the Regional Steering Committee on June 26. It was included in the Plan of Operations, Chapter 6, as presented to the National Meeting at the Prime Ministers' Office on August 16, 1993.

The list of the day-to-day programme managers at regional and district levels is set out in Appendix IV.

2.3.3 National level

The National meeting added the National level to the structure, which was approved in the meeting of the Regional Steering Committee on September 28, 1993. The structure at national level will be finally approved in the National Steering Committee meeting preceding the signing of the Plan of Operations. These amendments are now incorporated in the Plan of Operations, Chapter 7, Programme Organisation.

2.3.4 Parent Ministry

In response to the request by the Regional Water and Sanitation Steering Committee referenced W.10/10 of June 18, 1993, the Office of the Prime Minister and 1st Vice President informed on August 9, 1993, the Ministry of Water, Energy and Minerals, the Region as well as the Netherlands Embassy that PMO will be the Parent Ministry for the Netherlands supported Domestic Water Supply Programme in Morogoro and Shinyanga Regions. At the same time PMO appointed Mr. F. Mbonde, Planning and Control Officer I of PMO, to be the Desk Officer of this programme.

In the meeting on August 16 of the National Level Ministries, the Netherlands Embassy, and the Regions of Morogoro and Shinyanga under the chairmanship of PMO, it was decided that the meeting would constitute the **National Level Steering Committee**. This committee would meet at least once yearly after the **Joint Annual Review** to be held in October to oversee general programme implementation progress. Following recommendations of the review, it will decide on adjustments necessary to achieve smooth programme implementation and, if needed, adapt the Plan of Operations. The meeting discussed the Plan of Operations which incorporates the District Programmes proposals, and the Regional and National level support to these as submitted to the meeting. It was agreed that comments made in the meeting would be incorporated in the Plan of Operations prior to the signing of the document. *Health Programme*

The Regions will act as secretariat to meetings held under the auspices of the Parent Ministry.

2.4 Implementation Capacity of Districts

The determination of the district implementation capacities included the following activities:

Manpower survey

First a manpower survey was carried out among staff in the four involved district departments which had a total of 226 respondents or about 60% of the total number of staff. It provided, amongst others, an inventory of all categories of district staff. The result is set out in Appendix V. *Health Programme*

The staff numbers identified were then split up on male and female staff to make it possible at a later stage, when the recommendations of the gender impact study are known, to determine the district capacity to address gender issues especially with regard to special activities geared towards women. The number of staff that could be made available to the programme was also identified both in real numbers as well as in percentage of the total staff, and finally the duty stations of available staff were identified. The outcome of this activity is set out in Appendix VI.

Calculation of implementation capacity

Based on the available number of staff in the four districts and the percentage of their time which they can spend on the programme, the total number of mandays per year which can be made available to the programme by this staff was calculated. In the calculation an annual total of 232 effective mandays per year was used. This number of days excludes weekends, public holidays and annual leave. The total number of mandays arrived at in this manner was then used for calculating the implementation capacity.

To arrive at the maximum number of activities that the available staff can complete in a year, the total available number of mandays were divided by the duration of the various activities in the step-by-step implementation procedure and the required number of travelling days. The "activities" can be referred

to as number of wells or number of user groups depending upon the type of activity they refer to. This type of calculation has been carried out for water, community development and health departments in each district. The result is set out in Appendix VII.

Assessment of capacity

The assessment whether the total number of possible activities per year is sufficient to eventually achieve the targets of the programme was made in a next stage. Based on the total target of 500,000 people to be supplied with improved water points in Morogoro and Shinyanga regions and the budget allocation set aside for Morogoro, it was calculated that in the four districts of Morogoro a total of 220,000 water users should receive improved water points. Preliminary calculations show that 100,000 people will be supplied with piped systems and 120,000 with wells during the total implementation period of the programme. Assuming that these people are equally distributed over the four districts and taking into consideration that the programme will be implemented over a four year period, the following calculation can be made for the well programme:

120,000 people / 250 users per well / 4 districts / 4 years = 30 wells to be constructed and 30 user groups to be mobilized and trained in each district per year.

A similar calculation for piped systems reveals the following:

100,000 people / 250 users per user group / 4 districts / 4 years = 25 user groups to be mobilized and trained in each district per year.

It should be noted that these figures are not yet related to the actual capacities needed to implement the 1994 annual plans of the Districts and the Region, since firstly the district plans were not yet available in sufficient planning detail with regard to coordination between departmental activities to be carried out, and secondly did not take into account the differences of population to be served in each district. They only indicate averages derived from the objectives in the Plan of Operation. Once the plans fulfil the above requirements, the exact implementation capacities will be calculated.

Hand pumped wells

Using the number of 30 wells to be constructed annually and comparing this number with the total number of possible activities per year as calculated previously, the following conclusions about the district implementation capacities of the water department can be made:

*class reports
not done yet*

Morogoro rural district has inadequate capacity to carry out surveys, prepare designs and construct new wells.

Kilosa district has inadequate capacity related to surveys, designs and construction of wells.

- Kilombero and Ulanga district have the same situation as Kilosa

Piped systems

It is more difficult to determine implementation capacity for piped systems than for wells since time frames must be more flexible and adjusted for each system depending on its coverage. Apart from that, all districts have in general a limited implementation capacity since each district has only one survey team that can be assigned to piped systems, design capacity is non-existent in the districts and has to be provided by the region, and only one construction team can be fielded except in Ulanga where two teams can be fielded.

The implementation plan for piped systems include the rehabilitation of one system and the construction of one new system per year and district. It is assessed that the districts have the capacity to rehabilitate one system per year while most of the construction work for new systems has to be assisted by the region or the private sector.

Community mobilization and development

The annual target for each district is to mobilize and develop 55 user groups. A comparison between this number and the maximum implementation capacity reveals the following:

1. Health department

- Morogoro rural district has sufficient capacity to achieve the targets of the programme.
- Kilosa district are somewhat short of Health Officers.
- Kilombero district has exactly the same situation as Kilosa.
- Ulanga district has adequate capacity.

*relate to Target
↔ Capacity*

2. Community development department

- Morogoro rural district has adequate capacity.
- Kilosa district has adequate capacity.
- Kilombero district has adequate capacity.
- Ulanga district has a capacity corresponding to 35% of the total requirement.

3. Water department

- Morogoro rural district has adequate capacity.
- Kilosa district has inadequate capacity related to field assistant activities.
- Kilombero district has a more pronounced inadequacy than Kilosa.
- Ulanga has the same situation as Kilombero.

The above analysis of the implementation capacities of the districts is only indicative since detailed implementation plans for the total duration of the programme are not yet available. Furthermore, the analysis does not take into consideration the geographical distribution of projects but assumes that all activities are equally distributed in the districts. It should, however, be noted that geographical clustering of activities using the same field staff can reduce the implementation capacity. The result of the above analysis will, however, guide the planners who should make sure that such clustering does ~~not~~ take place and that activities involving the same staff are distributed in time to avoid reduction of implementation capacity.

The following recommendations to bridge the existing capacity gaps can be made:

General recommendations

In many cases the public sector implementation capacity is sufficient to carry out the activities set out in the step-by-step procedure but will allow for very few follow-up visits. These are considered very important since the time spent on step-by-step activities are limited. To achieve a high degree of self-dependence and consequent sustainability, regular post-training visits are required. It is therefore recommended that village animators are appointed by the user groups in each village affected by the programme. The animators should consist of a team of one woman and one man. They should be

trained by the programme to be able to carry out their role as backstoppers to the user groups. Furthermore, it is recommended to **train the village health workers** in the same manner to provide backstopping in the field of health. With regard to the **restricted implementation capacity of the Water Department**, the supportive implementation capacity of the region and the private sector will have to be assessed.

Specific recommendations

1. Health department

Kilosa and Kilombero districts have both a shortage of Health Officers. This shortage can probably be compensated by an overcapacity of Health Assistants.

2. Community development department

Ulanga district has an articulated shortage of implementation capacity. The establishment of village animators might partly help bridging this gap. To further strengthen the implementation capacity, a possible solution could be to encourage a number of new graduates with diploma in community development, who are at present jobless, to form a private enterprise in Ulanga. These graduates could receive training through the programme and then participate in the implementation. Receiving practical training and job experience will enhance their possibilities of being hired as public servants in the future. Another possibility is to hire retired civil servants with the adequate job experience in a similar manner.

3. Water department

The limited implementation capacity of the districts related to survey and design is mainly due to the fact that **these activities have been made very time consuming**; a village lay-out survey takes 21 days and design of wells 21 days. The long duration of village surveying is caused by the practice of detailing the maps produced beyond what is required. Up-dating available layouts and using 1:50000 maps as a base could reduce survey time and should, therefore, be discussed with the Regional Water Engineers' office. Regarding design it is recommended to produce **standard designs and costings** for tube wells and ring wells respectively. Using such standard designs will drastically reduce time spent on design work and increase the implementation capacity of the design units.

The identified gaps in implementation capacity of the public sector with regard to construction work should be bridged by the private sector.

A similar survey of the manpower of the regional departments is planned for implementation at the end of 1993.

2.5 Framework for Mobilization Campaigns

During the inception period the framework for mobilizing communities (user groups) on the possibilities of having water supply improvements through the programme has been developed in close collaboration with the district and regional implementation staff. It was found that three stages of mobilization are to be used at different times of the project cycle. These three stages start with a preparatory phase and two phases which are included as step 1, 2 and 4 in the step-by-step implementation procedure.

Stage one

As a first stage the Councillors of the District Council, via the Ward Development Committees, Village Executive Officers and the Village Chairpersons are to bring information about the programme and its approach to the potential water users, using pre-prepared explanatory pamphlets and request forms. This requires, however, that the Councillors are being well informed about the programme prior to carrying their message to the lower levels of the local government administration. This will be done in one-day seminars in each of the districts. The district programme managers (being the Heads of Departments) guided by the District Executive Director will be responsible for informing the Councillors.

Stage two

As a second stage, and after potential water users have submitted their requests for improved water points, a second mobilization activity is required in which the Community Development workers, CDO's assisted by CDA's, are to follow up on the water users' applications by carrying out a detailed community investigation to identify among other things:

- capability of users to organizer themselves;
- capability of users to sustain operation and maintenance;
- whether the felt needs of women and men for a water project are genuine, including the priorities and expectations of men as well as women;
- whether communities and user groups are really willing and able to participate fully in the implementation of the project with special emphasis on socio-economically weaker groups such as women heads of households;
- possible social control functions that can contribute to continued and adequate performance of the project facilities;
- whether additional facilities are required for e.g. washing, bathing, watering of small scale livestock;
- if so, who is to be responsible for design, construction, maintenance, and management;
- whether conflicts are likely to occur over the use of facilities between and within groups and or households; and
- whether any group can make economic use of waste water e.g. dry season gardening, tree nurseries, brick making, etc., whether support is needed, and who is to benefit from this additional economic activities.

Stage three

The third mobilization activity of the communities is during step four, where communities are mobilized to form user groups and user group committees. During this stage the established user groups discuss in detail about their rights and their responsibilities, and the committee members are given the training required to make them function as the managers of the improved water point.

Implementation

The programme is putting great emphasis on these mobilization campaigns, because it is only when the communities are properly mobilized that the projects can be successful and sustainable. The Community Development workers have to spend a long time on these mobilization activities to secure that required awareness and understanding are in place among the community members.

Considering the lack of implementation capacity of the Community Development Department as explained in section 2.3.2, the Department will require additional manpower input during the time consuming mobilization processes such as the socio-economic survey and the community development but in particular with regard to follow-up activities. Village animators (one man and one woman) must be identified in each village under the programme to strengthen the implementation capacity. In order for the animators to do their work properly, they have to be trained in animation techniques so that they are capable to carry out their specific tasks. The animators are to be trained in identifying gender needs, problems and priorities. The CD staff are to follow up and backstop the activities of the animators and direct them further.

The framework for mobilization campaigns may have to be revised as a result of the gender impact study which is currently being finalized.

2.6 Framework for Participation of Women

During this new phase of the programme special attention is to be paid to the further strengthening of the Community Development and Women in Development activities, aided by structured training programmes. In order to optimise the activities under the programme there has been a felt need of conducting a **Gender Impact Study during the Inception Period**. The Terms of Reference for engaging the services of a team of local researchers to conduct the study in Morogoro Region is set out in Appendix VIII.

Gender impact study

The objective of the Study is to gather specific gender information and develop an action oriented document that will provide practical recommendations on how to plan, implement and monitor the project activities of the Domestic Water Supply Programme in Morogoro Region with a maximal positive effect on women.

The framework for the study is based on generally accepted guidelines for Gender Analysis and Empowerment. Given the situation of women in Tanzania, the study addressed the issue of the incorporation of empowerment/strategic interests of women into the programme, as well as effectively meeting their practical needs related to water supply.

The report of the study is not yet issued, but the constraints identified in the field and the strategies to overcome these constraints suggested by the target groups of the study were presented in a regional workshop conducted for regional and district implementors. They were reported as follows:

Constraints in relation to water supply.

a. constraints in relation to closer water supply:

- scattered households;
- inadequate water sources;
- acceptability of water to users.

b. constraints in relation to continuous water supply:

- inadequate supply at source;
- breakdowns of supply because of irregular or no maintenance.

c. constraints in relation to clean and safe water supply:

- user preference in taste;

- cleanness at water sources;
- contamination of water sources;
- inadequate carriage and storage utensils for water.

Strategies identified would include:

- in relation to (a) above, strategies would include alternative technology beside shallow wells and piped supplies;
- in relation to (b) above, strategies would include more water sources;
- in relation to (c) above the following strategies have been identified:
 - (i) involve water users, especially women in site location,
 - (ii) make assessment of continuity of supply with users especially women,
 - (iii) encourage female craftsmen.

Constraints in relation to reduction of women's workload in water collection.

- women's/family preferences for specific sources of water;
- low technology level in collection and storage of water;
- danger of increased work for women in water programme activities i.e. collecting more water, implementing programme activities;
- low advocacy for redistribution of work along gender line.

Strategies would include:

- increase knowledge of different technology to decrease workload;
- create awareness of gender issues, advocacy for work-sharing;
- enabling and encouraging an equitable work-sharing within the programme so that women are not overloaded.

Constraints in relation to increase women's participation in decision-making.

- women do not come forward for leadership positions;
- poor flow of information to women;
- low education level of women;
- heavy workload of women reduces time available for participation;
- the time normally set for meetings is often inconvenient to women;
- women do not receive information about meetings early enough;
- women and men are not informed about the agendas of the meetings;
- choice of women leaders poor, i.e. chosen by family relationship;
- lack of support for women leaders among both men and women;
- women lack skills and experience in leadership/ formal decision-making;
- men do not allow women to attend meetings, particularly distant meetings;
- men are conservative, traditional;
- effective participation of women ends at user group, sometimes village level;
- lack of advocacy for gender issues at village and District levels;
- lack of knowledge about gender planning at all levels.

Strategies would include:

- increase advocacy for increasing women's participation in decision-making among men and women, village leaders, implementing personnel;
- create enabling environment for effective participation of women in decision-making through allowing separate meetings for women, building organisation capacity and experience among women, establishment of channels of communication and responsibility for gender issues;
- increase capacity for accountability, monitoring and control of gender issues.

Constraints in relation to increase village level capacity building.

- inappropriate training methods and materials to effectively reach the user groups;
- inadequate preparation and time for training of trainers;
- lack of experience, confidence in new approach;
- forms and procedures inadequate/inappropriate for community-based monitoring;
- inadequate technical training;
- inadequate lines of communication.

Strategies would include:

- train extension workers in participatory approaches;
- prepare a training manual so that training can be consistent;
- involve water users in planning at all stages;
- initiate an appropriate community based monitoring;
- increase duration of training activities;
- ensure that gender issues are covered in training;
- build skills for problem solving, especially during socio-economic community investigation;
- institute effective communication channels and lines of responsibility and ensure their effective use.

Use of results

Once the specific and practical recommendations are developed by the researchers and the report is issued, the impact of the recommendations on the programme in general and the step-by-step implementation procedure in specific will have to be studied. It is foreseen that adjustments to the programme and the implementation procedure will have to be made to accommodate the recommendations.

2.7 Performance Status and Institutional Requirements of Piped Systems

2.7.1 Performance status

At the thirteenth annual Water Engineers Conference, held in Tabora in November 1991, the Regional Water Engineer of Morogoro Region presented a document on the status and performance of all water supply systems in the Region. The database in this document has been refined by the Programme and District staff and quantitative information was added on water quality, accessibility of villages and the possibility of constructing shallow wells in villages, which are not yet covered with a water supply system. The last update was presented in the Programme's status quo and progress report of September 1992.

The currently available data for assessment of the performance status of piped systems are, however, still insufficient. Accurate and up-to-date data on performance of piped water supply systems in Morogoro Region are lacking, and therefore it is not possible to adequately analyse the institutional requirements for the construction, operation and maintenance of piped water supply systems. A new updated and refined, but still not accurate database, is presented in Appendix IX of this inception report. A short summary of the service coverage only, is given below.

Available water supply infrastructure

Morogoro Region consists of four Districts; Morogoro Rural, Kilosa, Kilombero and Ulanga. The Region has 1.149.000 inhabitants.

The available water supply infrastructure, including both wells and piped systems in Morogoro Region, contains a total of 2,169 water points. At a rate of 250 persons per water point, the improved water points supply water to 542,250 people. The infrastructure embraces 47 % of the total population in the region.

Actual service coverage

At present the total number of working water points is 1,531. This means that about 30% of the available water points are malfunctioning. At the applied rate of 250 persons per water point, 365,000 people are currently served and 177,250 are not. The actual service coverage is consequently 32 %

It is assessed that the percentage of malfunctioning infrastructure of piped supply systems is higher than for handpumped wells.

In order to achieve a 100 % coverage in Morogoro Region, an additional ²⁴²⁷2,575 new waterpoints must be built. About 1,400 waterpoints can be built in locations where it is feasible to construct hand pumped wells. About 1,175 improved waterpoints have to be constructed at locations where it is not possible or desirable to construct such wells; e.g.

- where ground water is deeper than 25-30 meters below ground level
- where there is a shallow basement
- where the ground water quality is bad. In Morogoro Region many well sites are disapproved because of high iron or manganese content
- where floods are common or where housing and population density are high, because of the high risk of pollution of the shallow ground water

Assessment

The piped water supply systems can be divided into gravity and pumped systems, and they are experiencing the following problems:

Piped gravity supply systems with public standposts:

- poorly constructed intakes
- constructed infrastructures are not according to design
- preventive maintenance is not carried out
- users do not feel responsible for the system
- no revenue collection for maintenance of the system

Pumped schemes with diesel or electric pumps

- unreliable fuel supply
- irregular and imperfect power supply
- preventive maintenance is not carried out
- lack of spareparts and skilled technicians
- users do not feel responsible for the system
- no revenue collection for operation and maintenance of the system
- systems too expensive to operate for the people

Qualitative data on these issues are presently not available. Such data are, however, required before these systems are to be managed by the communities. Due to manpower restrictions, data collection can best be done in connection with rehabilitations or extensions planned.

The main reason for the malfunctioning and disintegration of the piped water supply systems seems to be insufficient involvement and participation of the communities. The constraints in operation and maintenance can therefore be avoided if:

- communities are actively involved
- user groups are formed around tap points with representation in a water supply scheme management organisation (Scheme level)
- Village Water and Sanitation Committees are formed
- financial management at user group level, village level and at scheme level is carried out competently
- operation and maintenance at tap point level is carried out by user group *and same level*
- operation and maintenance is carried out at scheme level
- region, district and Programme are providing support in technical, organizational, training and sanitation aspects

In addition, many of the piped water supply systems are beyond their design horizon of 20 years. They need major rehabilitation and expansion of the available number of waterpoints to better serve the communities.

When investigating possibilities of constructing new piped water supply systems, it should be kept in mind that these systems have high investment and operation costs per capita. They are also complex with regard to operation and maintenance activities and require the full involvement of the community from the planning to the operation stage. Consequently, construction of new piped water supply systems should only be considered in areas where the community investigation shows that the community is willing to accept the involved responsibilities and are capable of overcoming the above common constraints.

In the overall planning of the programme, it has been estimated that rehabilitation of one piped supply system and construction of one new system can be carried out per year in each of the four districts.

2.7.2 Institutional requirements

The Programme's aim is to realise community based water supply systems, which should apply to the construction and management of wells as well as to piped supply systems.

User group level

The organization at user group level for piped water systems is not different from hand pumped wells. Domestic Water Points (DWP) of a piped system have each a user group, which is set up according to the same criteria as used for hand pumped wells. Some of the committee members at user group level should, however, participate in the VWSC or the Scheme Committee and thus have the possibility of passing on their experiences to the higher levels of the scheme administration.

Village level

At village level, the Village Water and Sanitation Committee should, where possible, be composed of representatives from the user groups. The committee should be involved in the management, planning and development of the scheme. It should also be responsible for the financial management at this level.

Scheme level

When a piped water supply scheme serves more than one village, a Scheme Committee should be established. The Committee should be the employer of the scheme attendant/mechanic, and be responsible for the overall management of the scheme.

Financial management of a scheme.

The financial management of a scheme should be at village level or at scheme level, if more than one village is involved. At user group level funds should be collected from each user at a flat rate or combined with a tariff system, e.g. a shopkeeper pays twice the flat rate. A user, having a private or house connection (restaurant, hotel, bar) should, however, pay a higher rate, e.g. ten times the flat rate. Tariffs can also be established on the basis of estimated water use. The collected funds should be managed at scheme level, since this level should take care of the expenditures for operation and maintenance activities.

The costs of operation and maintenance on transmission lines, storage tanks and intakes, which are used collectively, should be born by all user groups together.

Ownership of the piped water supply system

Ownership becomes a very important issue, if a scheme is to be managed by the community. A community can easily be demotivated to participate or contribute financially, if they do not have the full authority over the system. The community should have the right to take decision on tariffs, rates, extensions of the system, to grant house connections and give permissions for repairs or removal of vital elements of the system. They should also decide on exemptions of payment by members of the community on the basis of insolvency. A community owned piped water supply system is a crucial asset for successful management. The districts, the region and the Program still have the task of providing the technical, organizational and financial support as mentioned earlier.

The National Water Policy gives the possibility to establish this type of ownership/full management of systems to communities and the Program will support this approach.

2.8 Management Information System

The purpose of establishing a management information system (MIS) is to provide the programme management with a tool which can assist them in monitoring the progress of the programme with regard to physical work and in comparison to the planning and budgeting made. Furthermore, the MIS should assist the managers in making the correct decisions at the right time. It is evident that the MIS will have to contain a number of databases in which the various data can be stored. The following databases are initially seen necessary:

- baseline data
- departmental manpower data
- budgets
- district and regional implementation plans
- implementation monitoring data
- value for money assessment results
- administrative system data
- accounting system data
- store and buffer stock data

The MIS will initially be developed as a manual system. The flow of information will go from the district level to the regional level and the Consultants where the data will be aggregated. The subsequent computerization of the system will be carried out simultaneously at regional level and in the office of the Consultants. It is expected that the districts, once the system is developed, will also have the opportunity to have a computerized system.

The development of the computerized system will follow the prototype approach meaning that a simple prototype will initially be developed on which the operational staff and the end users will be trained. The prototype will in a next stage be expanded with additional variables based on the requirements of the users.

2.9 Administrative and Monitoring Systems

2.9.1 Accounting system

The objectives of the accounting system are to:

- manage and account for GOT and GON funds issued to the DWSP program
- establish a sustainable accounting system at district and regional level
- safeguard smooth disbursement procedures at all levels
- establish records from which data can be extracted for value for money auditing, user group contributions and for evaluation missions/audits purposes
- establish links and provide information for the planning, implementation and control cycle.

Methodology to achieve the objectives

To achieve sustainability, the participation of all Programme implementors in the development of an accounting system is of utmost importance. Consequently, all implementors, including the District Treasurers, have been involved in workshops focusing on the development of program accounting systems/procedures. The developed accounting systems are linked to standard GOT accounting regulations to secure sustainability.

Proposals from the workshop participants regarding the new systems/procedures have been discussed and evaluated by applying the following framework:

- An analysis was made of previous experience and problems encountered.
- Based on this analysis, a preliminary design was drafted.
- Implementors evaluated the merits and possible problems of this new design with their staff and user groups whenever applicable.
- Based on the findings, a final design was made, and different ways of implementation were discussed.
- Approval of the way to implement the new design. Since all Programme parties have been involved from the start, implementation can immediately take place.

Systems were developed while the actual work was simultaneously carried out (using prototypes while working on real-life data). This approach showed quick results to the various implementors and increased their involvement. Feedback was given on the spot, and, hence, major constraints could be solved while developing the various systems. In all cases systems have been developed keeping in mind that manual operation should be possible and details are to be kept in the Districts. For internal and external auditing purposes, but also to simplify calculation of aggregated information, the systems used by the consultants will be computerized. The aggregated data and information will be made

available to the implementors, and checks to verify aggregated reports with actual district and regional documentation will be carried out.

Activities and achievements during the inception period

Initially, the previously applied system of accounting was analyzed together with the implementors. Furthermore, the recommendations of previous evaluation missions were taken into account. The following constraints were identified:

- Slow disbursement procedures (clearing of country cheques). Banking procedures and communications are time consuming. Experience shows that delays of several weeks is standard practice.
- Financial data on planned projects (budgets) and actual implementation costs are available, however these are not easily accessible. Projects on usergroup level are carried out by a number of departments. Coordination between these departments is cumbersome; it proves to be difficult to aggregate (financial) data when more than one department is involved.
- Data on the flow of program goods and the various stock-levels is available, however coordination/management of the flow of program goods between the various stocks is not carried out systematically.
- Though implementors know how to prepare detailed/year plans and related budgets, problems occur in coordination over the various departments and between Region and Districts.
- There is a lack of financial data of actual operating costs of Programme cars, which gives problems in budgeting.

Based on the analysis above, the activities set out in the table on next page have been performed/scheduled.

Detailed descriptions of the various systems/forms/procedures and the flow chart explaining the relation between the various systems have been incorporated in the Plan of Operation, chapter 8, except for the budgeting system which has still to be refined. The developed forms were used in the presentation of the district and regional plans and budget for the remaining part of 1993 and 1994 to the Regional Steering Committee on September 28, 1993.

Planning for 1993 and 1994

The following activities are planned for the remainder of 1993 and the year 1994:

- linking budgeting system with planning activities by the districts (1994)
- stock-taking of program goods by all districts (nov 1993).
- development of an inventory management system to be used for the buffer stock in Morogoro and to be able to manage and control goods issued to implementors. This should be ready prior to the stock-taking by the districts. (oct 1993)
- linking financial project data with the management information system (baseline study data). This should provide records for the value-for-money audit as well as provide quantitative information for internal monitoring. (1994)
- ongoing: scrutinizing of financial system for project control, especially the link to planning/budgeting system will be considered. (1993-1994)

Problem / analysis	Proposed solution / preliminary design <i>Date discussed</i>	Final design <i>Date discussed</i>	Implementation <i>Date implementation</i>
Slow disbursement procedures	Use bank draft <i>District visit</i> <i>Consultants April 1993</i>	Same	Disbursement to districts for Inception period <i>June 1993</i>
Lack of financial data on projects planned / performed.	Design of reporting formats on project basis <i>Workshop 3-6</i> <i>August 1993</i>	Detailing reporting formats <i>Workshop 16-18</i> <i>August 1993</i>	When implementing Sep-Dec 1993 plans <i>September 1993</i>
Management of stock on all levels. Logistical and procurement procedures.	Establish procedures; stock-taking on regular basis; reinforcement standard GOT stock procedures; development inventory management system <i>Workshop 3-6</i> <i>August 1993</i>	Detailing procedures development of forms; specific dates for stock-taking <i>Workshop 16-18</i> <i>August 1993</i>	To start with sep-dec 1993 implementation <i>September 1993</i>
Budgeting system	Develop forms and guidelines; agree on time schedule <i>Workshop 15-16</i> <i>September 1993</i>	Detailing forms; development computer programme <i>Preparation budgets & work plans 1993/1994 17-27</i> <i>September 1993</i>	Budgeting 1993 and 1994 by Districts and Region; system developed while planning took place <i>17-27 September 1993</i>
Operating costs Programme cars	Set-up administrative carpool system <i>Workshop 3-6</i> <i>August 1993</i>	Detailing system/forms carpool system <i>Workshop 16-18</i> <i>August 1993</i>	Implementation as from <i>October 1993</i>

2.9.2 Monitoring

Extensive discussions have taken place regarding the monitoring of the performance of the programme. Required data for the monitoring of progress, resource inputs, procedures and methodology, and the quality and quantity of the outputs have been defined. The results of these discussions have been documented in the Plan of Operations, 6.2.10.

Two types of monitoring will be used, monitoring of the quantitative progress of the programme and monitoring of the programme impact. The latter monitoring will measure the replicability and sustainability of systems put in place.

2.9.3 Value-for-money auditing

The basis for the value-for-money auditing is the administrative procedures and the financial management systems which were agreed upon, as described above under 2.6. and with references to the Plan of Operation 8.1. and 8.2. Databases for registering the data made available through the linked systems will be established at district and regional level during the first year of implementation, based on sustainable, manual data gathering. The extensive flow of data expected in the programme will, however, require computerised data banks to make data easily accessible.

2.9.4 External review and evaluation

The Netherlands Embassy will undertake the task of developing the Terms of Reference for the external review and evaluation, and appoint an independent Consultant to carry out the task. The responsibility of the programme is to provide the review and evaluation mission with up-to-date data from the monitoring systems.

2.10 Finalization of Activities from Previous Programme Period

In order to achieve a realistic bottom-up approach in fulfilling the Consultants' obligations with regard to non-completed activities from previous programme period, it was agreed from the start of the consultations with the districts at the end of March, that the finalisation of these activities would be used as a tool to practically test the developed administrative and financial systems, details of the Step by Step approach, and formats for planning, budgeting, implementation and monitoring. Meanwhile further detailing of the whole process could continue as a parallel exercise using feedback from user groups and implementors to fine-tune the processes.

The finalisation of ongoing activities from the previous programme period was, therefore, only to be completed when and where users accepted the requirements of sustainability and participation of the new phase of the programme.

Although the completion of tasks took longer time following the new methodology, it ensured practical participation in the process by all implementors and user groups from the early stages and proved to keep motivation and interest at a high level.

The activities carried out by the regional implementors were geared toward identification of types of assistance required by the districts and how to coordinate such assistance. The regional staff not only visited the four districts, but also organized a workshop in which the issues were discussed. The regional water department has during the period supported Kilosa district with the construction of Ruaha gravity water supply system.

The main activities carried out in the districts are set out in the table on next page.

Activity	Morogoro	Kilosa	Kilombero	Ulanga
Re-mobilization of user groups	8 villages	12 villages	11 villages	10 villages
User group formation	69	127	137	74
Election of user group committees	69	127	137	74
Training of committee members	326	532	550	432
Training of group leaders	197	308	270	212
Rehabilitation of hand pumped wells	3	11	12	6
Survey for hand pumped wells	3	1	16	4
Construction of hand pumped wells	4	1	1	12
Village lay-out survey	1	1	1	3
Intake construction for piped systems	1	1	1	1
Rehabilitation of DWP		9		

3. CONSULTANTS' SPECIFIC RESPONSIBILITIES

3.1 Identification of Training Needs

During the whole period of the inception phase means and methodologies to identify training needs have been developed with a view to establish training plans. Specifically, the following activities were implemented:

- A manpower survey was carried out. Out of this survey, training needs for implementors were collected, assessed and analyzed as well as institutional constraints.
- Identification of training institutes which can be consulted for either consultancy or which offers actual training activities suitable for implementors.
- Identification of indigenous training capacities available within the implementing departments which could provide training support to the programme.

Felt training needs

The manpower survey not only provided information about staff involved in the programme (see under 2.3.1) but also collected the felt training needs of all staff per staff category. The result of the training needs survey is set out in Appendix X. The data collected were assessed and analyzed, and in a further step the training needs were discussed and verified by the department heads in a series of visits to the districts.

Institutional constraints

The manpower survey also included questions about felt institutional constraints. The questionnaire contained a series of pre-prepared questions but space was made available for additional listing of constraints as well. The result, which is set out in Appendix XI, has been analyzed and assessed with regard to training needs. Further analysis related to causes of the institutional constraints which are not related to lack of knowledge will be carried out at a later stage.

Training programme

The identified training needs for the public sector, the village health workers and the village animators for the entire programme implementation period are set out in Appendix XII as well as the training plans for 1993 and 1994. In these plans the training needs of the private sector have not yet been included since the individual small contractors and craftsmen are still to be identified, mainly on a project-to-project basis.

Training plan of 1993

The training plan for the remaining part of 1993 contains programmes that meet the most crucial and most urgent training needs which were identified. The first activity is to carry out a team building workshop for all heads of department at regional and district levels. The purpose is to secure that there is a uniform understanding of the approach of the programme and its activities, and that the involved sectors get the feeling that intimate intersectoral collaboration is required for the successful outcome of the programme. After the regional workshop the district heads of department are to carry out similar workshops for their staff.

A programme orientation seminar is also planned for the Regional Development Committee. This seminar is aiming at providing information about the programme and start off the programme

information dissemination process which eventually will reach the potential water users.

Among the activities in the step-by-step implementation procedure, the community awareness and mobilization process is the one which most urgently needs to be improved on. During the pilot implementation of the revised step-by-step procedure, it has become evident that the involved staff require better understanding of the process and guidelines on how to carry it out. This is crucial to the continued implementation of each project since this process sets the stage for further interventions. If the potential water users are not fully and correctly informed about the implementation process and the implications on the community, the completion of remaining activities will be hampered. Hence, a training intervention for the CDOs and CDAs who participate in the completion of the on-going activities will be carried out. This will at a later stage be followed up by a similar training for all CDOs and CDAs.

In view of developing a sustainable training structure for the programme, it is suggested to build capacity and competency within the involved departments and only invite external institutions when the specific subject matter knowledge is lacking. Such a strategy will involve the development of so called master trainers who will after comprehensive training on methodology and training techniques be responsible for delivering training to the implementation staff. The master trainers will be the heads of departments at regional and district level since they have the best technical subject matter knowledge within their respective departments.

Finally, based on the experiences made during the planning of the 1993 and 1994 programme activities, a training programme on planning is recommended for planning staff at regional and district levels.

The 1993 training plan was discussed in a planning workshop with regional and district staff and approved for implementation. The plan is attached as Appendix XIII.

Training plan for 1994

The training plan for 1994 is a continuation of the plan of 1993. The topics selected for training interventions are following the same sequence as the activities in the step-by-step approach. The strategy is to have the required competencies in place before the practical application is to take place. The plan, in its present form, only enumerates the interventions planned. It will at a later stage be complemented with a time schedule.

The plan is ambitious. It embraces more than 300 training days which necessitates simultaneous training activities. The total training budget of the Consultant is estimated to NLG 350,000. This amount exceeds the original budget. However, since only one quarter of the 1993 budget can be utilized, it is recommended to carry over the required amount of NLG 150,000 from the 1993 budget.

The training plan is set out in Appendix XIV.

Strategy for human resources development

The training needs survey carried out and the resulting training plans for 1993 and 1994 are to be seen as an initial effort in developing the manpower involved in the programme. The long-term strategy is to develop appropriate and detailed job descriptions for all staff involved in the programme and to put a staff performance appraisal system into function which, on a continuous basis, will provide information about staff training needs. A staff appraisal system has, however, already been developed by the Department of Manpower but it is not identifying training needs. It is therefore

suggested to develop a supplementary system which exclusively focuses on staff training needs.

Human resources problems will be identified by comparing the actual job performance with the desired one as stated in the existing or revised job descriptions. Discrepancies are indications that training might be required. The result of this process will be a listing of existing training needs for each of the human resource categories involved in the programme supplementary to the one currently developed based on the training needs survey.

For each training need identified and depending upon its nature, a decision will be taken whether the required training should be conducted internally within the project or if it should be purchased from an external institute. This selection should be based on which of the two alternative will provide training of the best quality. Financial aspects will, of course, also play a role in the selection process.

The inventory of existing institutes which can provide training supportive to the programme activities carried out will make it possible to judge whether in-house or external training is the best alternative. The inventory contains information on available courses, qualification of teaching staff, training capacity, available training materials, duration of courses, costs, etc. Having this information, objective decisions can be made regarding where the training can best be conducted.

If in-house training is considered to be the best alternative, then preparations for the training have to be made. This will include curriculum development, development of training materials, training of trainers. Once completed, the delivery of the training intervention can take place. The final activity will be to monitor and evaluate the impact of the training conducted.

Should, however, external training be assessed as the best alternative, then the most suitable institution has to be determined and an agreement with the institution has to be made. Similarly to the in-house training, the impact of the external training has to be monitored and evaluated.

Strategy for institution development

from waterbury

The institutional problems can, in principle, fall under two headings : (1) staffing problems and (2) organizational problems. The analysis of the staffing problems will include the identification of work unit tasks, work load and manning standards. Furthermore, existing job descriptions will be analyzed. The identified organizational problems will be analyzed with regard to lines of command, sequences of decision making, flow of documents and flow of funds. The identified constraints will be prioritized.

Once the analysis process is completed, suggestions for improvements will be developed and discussed with the institutions involved. An agreement should be reached regarding which improvements should be implemented. This should be followed by the actual implementation of the changes which process should be closely monitored and evaluated.

Approach to human resources and institution development

The general approach to be used in strengthening the human resources and the institutions after the inception period is set out in Figure 2.1. The identified and confirmed problem areas will be sorted under two headings, (1) institutional problems and (2) human resource problems, and subsequently be prioritised and analysed.

Baseline data

The data and the subsequent information arrived at through the analysis process will form the baseline data describing the current situation related to the performance of both the institutions and the human resources. The progress and the eventual success of the programme can then be assessed by comparing the baseline data and the current data at any point in time.

3.2 Identification of Available Training Capacities and Institutions

A questionnaire was sent to all known training institutions, both private and public, having programmes related to the activities of DWSP in order to identify their capabilities, capacities and cost levels. This survey was carried out in collaboration with the Shinyanga programme. Replies have been received from seven institutes which all declared their willingness to provide training support to the programmes. These institutes and their fees are set out below.

Name of Institute	Types of courses	Cost of tailored course per manday
Centre of Continuing Education	- Adult education - Management	Negotiable
Institute for Development Management	- General management - Financial management - Local government management and accounting - General administration	Shs. 35,000/=
Rwegarulila Water Resource Institute	- General education - Hydrology - Supervision and management - Water laboratory techniques - Design and construction	Shs. 27,000/= (in) Shs. 45,000/= (out)
Eastern and Southern African Management Institute	- Human resources management - Health services management - Women in development - Policy analysis	\$ 3,000 (6 weeks) (in) \$ 2,400 (6 weeks) (out)
Shinyanga Commercial Institute	- Financial management - Accounting	Shs. 31,000/=
Community Development Institute, Rugembe	Community development	Shs. 35,000/=
Cooperative College Moshi/Kizumbi	- General management - Financial management	

Further replies are anticipated. Once received, the possible support from these institutions in implementing the training plans developed will be assessed.

3.3 Continuation of Health and Sanitation Education

The health and sanitation education activities geared toward user groups will play a much more prominent role in the current phase of the programme compared to previous phases. Health department staff are now involved in all activities in which the user group members participate. The activities included in the step-by-step implementation procedure are the following:

Step 1 Community awareness

- sanitation and water
- quantity of water per person per day, with reasons specified
- diseases associated with inadequate water supply
- water born diseases
- how to use water to improve sanitation at household level

Step 2 Community investigation

- collection of baseline data
- assistance to water users in selecting technology

Step 3 Survey and design

- testing of water quality and assessment of environmental aspects

Step 4 Community mobilization and development

- general training of user group committees including:
 - . roles and tasks in domestic safety of water
 - . three pot system/concept
 - . hygiene at household level
 - . boiling and storage of drinking water
- planning of implementation activities

Step 5 Construction

- testing of system and its sanitary environment

Step 6 Operation and maintenance

- Specialized training of user group committees

3.4 Private Sector

It is considered necessary to involve the private sector to supplement district and regional capacity to expand the output of the programme. Although the districts and the region have applications from private enterprises to be considered for involvement in the Programme, details are lacking on the availability and capacities of potential craftsmen or entrepreneurs, who could be considered for involvement in additional production capacity. Thus, an inventory survey is still to be carried-out which can best be done at the beneficiary level when activities are to be carried out.

The districts and the region will register local craftsmen, small contractors, local consultants, and any local experts whose expertise could assist programme implementation in the fields of training, planning, construction, maintenance, etc. They will be required to supply information on their educational background, field and duration of experience, available equipment and facilities in order to enable districts and region to invite them for tendering when appropriate opportunities occur.

So far a number of contractors, consultants and experts have confirmed their interest to participate in the implementation of the programme. They are listed in the table on next page.

Manufacturing of pumps, spares and ancillary equipment

A number of manufacturing enterprises have so far been identified and are listed in the Plan of Operations under 6.2.7.

3.5 Research and Studies

Research and studies into alternative technical options

In the Plan of Operations for the Program 1993-1998 it has been stated, that The Domestic Water Supply Programme will no longer be limited to the technologies so far used in the RWSP, i.e. construction and rehabilitation of shallow wells and piped water supply schemes.

Under the new Programme attention will be given to other appropriate and affordable technical options. The options, which were indicatively mentioned, are:

- rainwater harvesting
- roof catchment
- ferro cement constructions
- sub-surface dams
- water wheels
- solar powered water supply
- river infiltration galleries
- hydro rams
- improvement of means to transport water
- small water towers for health centres and clinics
- cleaning of silted dams, only under environmental conditions

Present inception of new technologies

At the request of the Program, a literature study has already been performed on the feasibility and applicability of water wheels. The intention is to use the water wheel as the source of power to pump water from a riverside well to an overhead reservoir.

Many piped supply systems exist in the Morogoro Region driven by diesel engines. Under 2.7.1. it was noted that the diesel engine driven pumped systems are highly unreliable and too costly and complex to operate. Wherever possible they should be converted to gravity systems or driven by other powersources e.g. hydro power.

Another alternative solution for the construction of roofing of water storage tanks is under design. It is the intention to change the concrete roofslabs in the presently applied standard design into a dome type roofing of ferrocement. This method simplifies the construction and will also greatly reduce the construction costs. Construction of complete tanks are under study.

<i>Name Contractor / Expert</i>	<i>Type of activity</i>
<i>Gwabara Survey & Well Construction</i>	<i>Survey and construction of hand drilled wells</i>
<i>Bungo Building Contractor</i>	<i>All civil works and buildings</i>
<i>Min'gavilo Electrical Contractor and Maintenance Services</i>	<ul style="list-style-type: none"> - <i>Industrial and domestic installation</i> - <i>Machinery and equipment, installations and repair</i> - <i>Refrigeration and air conditioner</i> - <i>Design and estimates of electrical works</i> - <i>Maintenance of all electrical equipment</i> - <i>Motor rewinding</i>
<i>HMM Commercial Investment Company</i>	<ul style="list-style-type: none"> - <i>Sale and distribution of construction equipment and materials</i> - <i>Investigation and rehabilitation of buildings, rural roads and water supply</i>
<i>Fabian Kigoda Contractor</i>	<i>Buildings</i>
<i>The Southern Electric Works Contractor</i>	<ul style="list-style-type: none"> - <i>Motor/generator windings</i> - <i>Installation of street lights, cookers, electric water pumps and computers</i>
<i>Kaza Building contractors</i>	- <i>Contractor Class IV in bridge construction, roads and wells</i>
<i>GEMATT Building Contractors'</i>	<ul style="list-style-type: none"> - <i>Construction</i> - <i>Design and drawing</i> - <i>Topographical surveys</i>
<i>PAX NIPPONICA Company</i>	<ul style="list-style-type: none"> - <i>Supply of camping equipment</i> - <i>Architectural Consultancy/Engineering works</i> - <i>Industrial and motor spares</i> - <i>Fumigation</i> - <i>Vehicle leasing (trucks, saloons, mini bus)</i> - <i>Servicing and supplying fire fighting equipment</i>
<i>Mr. H.J.A. Msemnic</i>	<i>Expert in topographical survey (33 years experience as surveyor of water works)</i>
<i>Ngoshakugeme electrical workshop</i>	<p><i>Expert as electrician in water department (5 years experience)</i></p> <p><i>Activities:</i></p> <ul style="list-style-type: none"> - <i>motor rewinding</i> - <i>wiring</i> - <i>installation of pumps</i> - <i>supply electrical spares</i>
<i>Abuzi investment</i>	<ul style="list-style-type: none"> - <i>Manufacture of industrial spares and products</i> - <i>General supply industrial spares and products</i> - <i>Building road construction and repairs</i> - <i>Consultancy of industrial activities</i>

Environmental impact studies

To assess the impact of the environment (e.g. de-forestation) on the sustainability of water supplies as well as the impact of water supplies on the environment (e.g. cattle watering points) studies are proposed to be undertaken to advise the Regional and District authorities on preventive and remedial actions to be taken. A study has been included in the regional plans for 1993 but details of this study have still to be worked out in relation to programme needs.

Tools to be used must be outlined in TOR

3.6 Work Plans and Budgets

Since the start of the Inception Phase was set to March 1, 1993 with a duration of three months and not longer than six months, it became necessary to submit plans and request budgets for the remaining period of 1993, that is September - December 1993. Plans and budgets for Morogoro Region as well as the Morogoro districts were to be prepared for 1994 and submitted to RNE before October 15, 1993.

Activities and achievements during the inception period

The Regional Team visited the districts in order to coordinate and assist in preparing these plans. Plans were for the first time discussed in the regional and district workshop held between August 3 and 5, 1993. Participants of the workshop concluded that these plans and budgets contained insufficient details to guide actual implementation and to make proper budgets, lacked the need for regional support, and exceeded available budget ceilings. Revised plans were submitted to the workshop of September 15 and 16, but still information about the relation between budgets, implementation and the coordination between various implementing departments was not sufficient. It was then decided that the relevant planners of districts and region would remodel the presentation of their plans and budgets in summary form, leaving the background intact. This exercise lasted up to September 27.

Assessment of the proposed plans and budgets

During these extended planning sessions in the districts and the region, notwithstanding the enthusiasm which all participants maintained throughout the process, it became clear that the required detailing of these plans at this stage proved to be difficult. However, the present form of the budgets and work plans makes it easier to detect the needed coordination between departments and between the region and the districts.

Another problem is that activities to be carried out were based on assumptions that users were identified, had applied and were willing to comply with programme requirements. A good understanding by all involved parties of the requirements and procedures set out in the Plan of Operations is lacking. The proposed training plans for the year 1993 and 1994 will bridge this gap.

Thirdly, the assessment of training needs by the consultants and the preparation for training activities by the districts and region were carried out simultaneously with the planning for the remainder of 1993 and the year 1994. It is expected that these training programmes will have a major impact on the timing of the proposed activities as they are currently stated in

the work plans. Furthermore, important information on gender issues and the effect it will have on the contents of the training programme has still to be incorporated.

To implement the 1994 plan according to the requirements and procedures outlined in the Plan of Operations, coordination has to be achieved between the already emerging information and training needs from the human resources assessment, the time schedule to perform these training activities and actual implementation based on the step by step approach. Training programmes have to be performed before proper implementation can start. Consequently, the contents of the proposed plans and budgets will change: a shift in time of actual implementation activities is expected while training activities will be incorporated. These developments will change the structure of the proposed budgets.

Finally, all districts have scheduled activities to train and form usergroups who are using existing infrastructure. This is done because implementors reason that all usergroups in a village should be given equal treatment. Whenever there is a request from a usergroup applying for a new waterpoint, districts feel that all users in this village should be trained and formed according to procedures set out in the Plan of Operations. Presently, this situation has not been taken into account in the Plan of Operations. The main target is sustainability in the operation and maintenance of all water supplies, without taking into consideration the forming and training of usergroups of already existing infrastructure. This will put greater pressure on staff performance as more has to be done than in the first place thought. Budget wise, simple rehabilitation or construction activities for a small number of user groups may require a greater input of manpower and overhead costs than what is presently budgeted. This will also affect the overall costs of increased coverage versus new waterpoints installed.

Recommendations

Keeping the remarks made before in mind, it is recommended to approve the requested budgets. However, shifts between budget codes will be proposed and should be accommodated.

It was decided to give time for these details to be worked out first and that the districts and the region would incorporate these in their detailed implementation planning and cost estimates of projects. Disbursements will take place after these detailed plans and budgets have been approved.

Meanwhile, the four months of 1993 will only be used to finalise all ongoing activities and start with the necessary training programmes for the 1994 implementation process. Thus, the detailed planning for 1994 will depend for a large extent on the outcome of the proposed training activities in the remainder of 1993.

APPENDIX I

Terms of Reference for the Inception Period

PLAN OF OPERATIONS

TERMS OF REFERENCE FOR THE INCEPTION PHASE

1. Introduction

The Morogoro and Shinyanga Region District Domestic Water Supply Programmes 1993 - 1998 frameworks have been defined in the documented proposals of November 1992 by the respective District and Regional Authorities. Documented are the general present situation, objectives, priorities and targets, approach, implementation method, organizational and management set-up, budgets and auditing. Ultimately a Plan of Operations for the Domestic Water Supply Programme for each Region will form the basis for programme implementation and approved by the Government of Tanzania and the Government of The Netherlands

The present District proposals are generally different by information nature, coverage and depth; they require to be scrutinised and further refined, to become the basis for Programme implementation, planning and management. This is to be accomplished during an Inception Phase, as part of the first year of the Programme.

The Programmes are oriented towards the development of both water supply infrastructure and the capacities for its sustainable construction, operation and maintenance and use by the user group(s) and the formal and private sectors. The development approach is primarily based on:

- a. programme implementation responsibility with the indigenous Government and the private sector, with involvement of the user group(s) to the maximum extent possible;
- b. development of management information and monitoring and
- c. rolling annual programme planning.

The expected general results are a gradually developing programme implementation capacity and output.

The major element of Programme implementation management is the step-by-step approach of users group(s) focused project execution, with various stages of action and decision making. At programme level the established system of cyclic policy and strategy development, programming, allocation, monitoring and evaluation is required.

As general criteria of evaluation it is preliminary assumed that overall results of the 5-year District programmes, in its two-track development approach, will be the sustainable provision of safe domestic water supply to minimum 500,000 people at an external investment rate of NLG 100.-- per person, alleviating the burden of minimum 200,000 women, with due regard to the process oriented (programmatic) programme approach.

2. Time frame

It is anticipated that the Inception Phase will have a duration of 6 months, commencing on March 1, 1993. GOT and GON will jointly review progress at mid-term and at the end of the Inception Phase.

3. Objectives

Keeping in mind the basic elements of:

- individual District Programme proposals,
- sustainability of all Programme activities

PLAN OF OPERATIONS

- programme implementation responsibility by the indigenous institution (Government and private sector), with involvement of the user group(s) to the maximum extent possible
- financing by GOT and GON with contributions by the user group(s) and
- value-for-money auditing, monitoring and innovation initiative by the Consultant,

the objectives for the Inception Period of the Programmes are considered to be the following:

General objective of the Inception Phase is to work out in detail the Plan of Operation, defining clearly the tasks, duties and responsibilities of all parties involved in the Programme implementation. This Plan of Operation will form a firm base for the Bilateral Agreement between GOT and GON.

Specific objectives of the Inception Phase are:

1. Selection of the Parent Ministry (GOT) under which responsibility the Programme will be implemented.
2. Appraisal under the prime responsibility of the agreed Parent Ministry (assumed to be PMO) of the District- and Regional Programme proposals as the basis for annual programme planning and 3-year rolling Plans.
3. Establishment of a detailed step-by-step approach (Programme and Project Implementation procedures) focusing on user group involvement, with specific emphasis on the responsibilities and roles of women, and to identify indicators by which the output and performance of the programme/projects will be measured taking into account a possible linkage with the management information system. The step by step approach will be reviewed regularly during programme implementation and adjustments made if and when required.
4. Assessment of the implementation capacity of the Districts, and their capabilities for direct implementation and training and supervision of others such as local contractors, village craftsmen.
5. Identification and establishment of the Programme implementation management structure, detailing the tasks, duties and responsibilities of all Programme parties, input of personnel, equipment and materials, implementation procedures etc. at the different levels.

Apart from the Programme implementation management structure special attention will be given to (institutionalisation) liaison with other (donor supported) programmes such as GON supported District Programmes in Shinyanga.

6. Establishment of the responsibilities of the Consultants to the Programmes i.a. with respect to value-for-money auditing, monitoring, research and innovative development.
7. Development, through a Gender Impact Study, of a practical framework for more and equal access for men and women to project decisions, activities and benefits, and assisting the Districts in preparing steps and activities for operationalisation
8. Assessment of the training needs under the Programmes and identification of available indigenous training capacities and Institutions as part of the Institutional Development aspects of the Programmes.

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9. Assessment of the presence, capability and interest of the private sector in programme implementation at user group(s) level, training and support in each District.
10. Identification and assessment of the required and available (indigenous) manufacture, procurement and stores (wholesale and retail) infrastructure required for the Programme implementation in terms of equipment, materials and services.

Analyses of existing local enterprises capable or already handling the manufacture and/or assembly of handpumps and related equipment and spare parts for the water supply sector, and the possibilities for these enterprises to undertake corrective maintenance and/or to provide maintenance support in general. The analyses is to include quality and price elements, possibilities for standardisation, all focusing on the VLOM concept.

11. Assessment of the status, and performance of piped supply systems and to analyse the Institutional requirements for the construction, operation and maintenance of such systems, and to identify the need for feasibility studies for individual cases, and the potential for the Districts to share O&M costs and financing with user group(s).
12. Set-up of an outline Management Information System to suit Programme implementors at all levels which can be further detailed and adjusted during programme implementation. The MIS is to provide base-line information, information on Programme implementation and expenditures against planning and budgeting, for purposes of value for money auditing. As a basis for the MIS system a policy is to be developed for the establishment of baseline information and the establishment of databanks.
13. Establishment by the GOT and GON of a Terms of Reference for external review and evaluation and the appointment of the Independent Consultants to undertake these review and evaluation tasks.
14. Establishment of accounting systems for the Programmes for purposes of auditing and monitoring of both donor and Government funds, and to develop a system to monitor user group(s) and/or other contributions.
15. Establishment of procurement and logistical procedures.
16. Finalisation of Programme activities of a detailed work plan and budget for 1994 as a basis for the previous Programme period.
17. Identification of the required continuation of health and sanitation education within the Programmes and to formulate and establish the training activities thereto and to identify local institutions and organisations which could play a role in the implementation thereof.
18. Production of an Inception Report documenting the achieved results with regard to the respective objectives and outlines the strategy for programme implementation, including the workplan for the remaining period of 1993 and a draft annual plan and budget for 1994.

The general Consultants' obligations are those of value-for-money auditing, monitoring and innovation initiatives.

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The specific Consultants' obligations as related to the respective objectives of the Inception Period are the following:

1. Facilitate and consult with the Parent Ministry of GOT (assumed to be PMO) and RNE regarding the appraisal of the District and Regional Programme proposals.
2. Consult with and advise the Programme Implementors at District and Regional Level on programme principles, concepts and strategies and to prepare, on the basis of these discussions, and in collaboration with the implementors, an agreed overall project document, i.e. the Plan of Operations which provides the philosophy, aims, objectives and strategies of the Programme, with special emphasis on the sustainability of all Programme activities.
3. Consult and advise on the establishment of a detailed step-by-step approach focusing on user group(s) involvement, with specific emphasis on the responsibilities and roles of women, and the identification of indicators by which the output and performance of the programme/projects will be measured.
4. Consult and advise on the implementation capacity of the Districts and their capabilities for direct implementation.
5. Consult and advise on the establishment of a framework for participation of women and to encourage their role in decision making.
6. Consult and advise on the establishment of the framework for mobilization campaigns to encourage user group(s) participation.
7. Consult and advise on the establishment of the Programme implementation management structure, detailing the tasks, duties and responsibilities of all Programme parties.
8. Consult and advise on the Consultants' overall and specific responsibilities in terms of value-for-money auditing, monitoring, research and innovation development.
9. To consult and advise the Districts on the results of the Gender Impact Study and the establishment of a gender-sensitive strategy for informing user group(s) of varying development levels on the key elements of the new Programme and inviting their participation.
10. To assess the training needs under the Programmes and identify the available indigenous training capacities and Institutions and to consult and advise on the establishment of an overall training programme.
11. To advise on the assessment of the status and performance of piped supply systems and to analyse the institutional requirements for the construction, operation & maintenance of such systems.
12. To identify and assess the required and available (indigenous) manufacture, procurement and stores infrastructure for the Programme implementation, and to analyse existing local enterprises capable or already handling the manufacture and/or assembly of handpumps and related equipment and spare parts for the water supply sector, and the possibilities for these enterprises to undertake corrective maintenance and/or to provide maintenance support in general.

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13. To consult and advise on the establishment of a Management Information System to suit Programme Implementors at all levels.
14. Consult and advise on the establishment of accounting systems for the Programmes for purposes of auditing and monitoring of both donor and GOT funds, and the establishment of procurement and logistical procedures.
15. Consult and advise on the finalisation of the activities of the previous Programme period and to facilitate such finalisations.
16. Consult and advise on the establishment of a detailed workplan and budget 1994 as a basis for the 3-year rolling plans of operation.
17. To identify the required continuation of health and sanitation education within the Programmes and to consult and advise on the establishment of the training activities thereto.
18. To prepare in close liaison with the Programme Implementors of an Inception Report which documents the achievements with regard to the respective objectives of the Inception Period, and outlines the strategies for programme implementation, including a workplan for the remaining period of 1993 and a draft annual plan and budget for 1994.

APPENDIX II

Health Checklist

HEALTH CHECKLIST

Date: / 19

A. Identification data

District _____	Ward _____
Village _____	User group _____
Type of water point _____	

B. Water point

1. Has the water point any drainage trench?	Y / N
2. Is the drainage trench clean?	Y / N
3. Is the drainage trench overgrown with grass?	Y / N
4. Is there any backflow from the trench to the well?	Y / N
5. Has the water point any earmarked space for washing?	Y / N
6. How many latrines are within a distance of 30 meters or less from the water point?	<input style="width: 50px; height: 15px;" type="text"/> latrines
7. Are there any other unacceptable condition? If yes, please explain under remarks.	Y / N

C. Water

1. Is the water clear?	Y / N
2. Has the water a pleasant taste?	Y / N
3. Has the water a pleasant smell?	Y / N

D. Domestic water cycle

(Conduct interviews with a sample of water users and make observations in the village)

Hygiene aspect	Y/N	If no, what is lacking?		
		Knowledge	Correct attitudes	Appropriate practices
1. Are water containers properly cleaned before being filled?				
2. Are containers properly protected against pollution during filling and transportation?				
3. Do water users treat the water before use?				
4. Is the 3-pot system used?				
5. Is water safely stored in the houses?				
6. Is proper hygiene observed when taking water from the container?				
7. Is proper cleanliness observed after defecation and urinating?				
8. Are kitchen utensils properly cleaned after each use?				
9. Are utensils dried on a rack?				

E. Diseases

Type of disease	Occurance frequency		
	Endemic	Frequent	Rare
1. Diarrhoreas			
2. Dystentry			
3. Eye diseases			
4. Round worms			
5. Scabies			
6. Ring worms			
7. Cholera			
8. Bilharzia			

F. Village health organization

1. Has the village one male and one female health worker? If no, who is missing? _____	Y / N
2. Has the village a functioning Village Health Committee?	Y / N
3. How many meetings has the committee had in the last 12 months? _____ meetings	

G. Remarks *(If space is not sufficient, write on the backside)*

Name of data collector

Designation

APPENDIX III

Step-by-step Implementation Procedure

STEP-BY-STEP PROJECT PROCEDURE

STEP 1 COMMUNITY AWARENESS

AIM: to make communities aware of the Domestic Water Supply Programme, to inform about the procedure of obtaining water and the related community obligations, and to decide whether to participate or not

STEP 2 COMMUNITY INVESTIGATION

AIM: to investigate the community and collect relevant data on water demands and data for determining whether sustainability in operation and maintenance can be achieved

STEP 3 SURVEY AND DESIGN

AIM: to prepare design and related budget taking into account the available water sources, environmental aspects and preferences of villagers with special emphasis on women needs, and planning the physical work

STEP 4 COMMUNITY MOBILIZATION AND DEVELOPMENT

AIM: to form user groups and user group committees, inform them about rights and responsibilities, train the user group committees and sign contracts

STEP 5 CONSTRUCTION

AIM: to construct the physical water supply system according to agreed design and agreed implementation plan

STEP 6 OPERATION AND MAINTENANCE

AIM: to train operators and user group committees on how to operate and maintain water supply system

STEP-BY-STEP PROJECT PROCEDURE

STEP 1 COMMUNITY AWARENESS		AIM: <i>to make communities aware of the Domestic Water Supply Programme, to inform about the procedure of obtaining water and the related community obligations, and to decide whether to participate or not</i>				
Activity <i>(What should be done)</i>	Facilitator(s) <i>(Who facilitates)</i>	Participant(s) <i>(Who is participating)</i>	Duration <i>(How long)</i>	Material(s) to be used <i>(What to use)</i>	Quantifiable output <i>(What is the end result)</i>	Indicator(s) <i>(How can it be checked)</i>
1.1 * Presentation of the District Program to potential users who have applied for improved water supply. * Discussion about their water requirements and the possible support from the program. * Decision about whether to participate in the program or not.	Village Chairperson Village Executive Officer CDO / CDA DWE/FA HO/HA	Potential water users	1 day	Information materials	– A decision whether to participate or not.	– Minutes of meeting – List of participants – Signed work order

STEP-BY-STEP PROJECT PROCEDURE

STEP 2 COMMUNITY INVESTIGATION		AIM: <i>to investigate the community and collect relevant data on water demands and data for determining whether sustainability in operation and maintenance can be achieved</i>				
Activity <i>(What should be done)</i>	Facilitator (s) <i>(Who facilitates)</i>	Participant (s) <i>(Who is participating)</i>	Duration <i>(How long)</i>	Material(s) to be used <i>(What to use)</i>	Quantifiable output <i>(What is the end result)</i>	Indicator (s) <i>(How can it be checked)</i>
2.1 * Identification of user representatives to participate in the investigation. * Collection of baseline data regarding: - water sources currently used and the existing problems - socio-economic status - health status - gender related issues * Determination of the capability of potential users to organize water user group(s), to sustain costs of O&M activities and to contribute to rehabilitation or new construction	- CDO - CDA - FA/Maji - HO/HA	User representatives incl. VHW	3 days	Checklists	Report containing correct data on all required aspects and justification for made recommendation.	- Report - Signed work order
2.2 Identification of potential fundis and small contractors in the area	- CDO / CDA - FA/Maji	User representatives	1 day	Checklist	Report containing correct data on all required aspects	- Report - Signed work order
2.3 General meeting of users to discuss requirements, wishes and obligations in relation to different technology of water supply and possible costs	- CDO - CDA - FA/Maji - HA	Potential water users	1 day	Collected information from activities 2.1 and 2.2	Understanding of the strengths and weaknesses of different technology in water supply taking into account the needs of women.	- Minutes of meeting - List of participants - Signed work order

STEP-BY-STEP PROJECT PROCEDURE

STEP 3 SURVEY AND DESIGN		AIM: <i>to prepare design and related budget taking into account the available water sources, environmental aspects and preferences of villagers with special emphasis on women needs, and planning the physical work</i>				
Activity <i>(What should be done)</i>	Facilitator(s) <i>(Who facilitates)</i>	Participant(s) <i>(Who is participating)</i>	Duration <i>(How long)</i>	Material(s) to be used <i>(What to use)</i>	Quantifiable output <i>(What is the end result)</i>	Indicator(s) <i>(How can it be checked)</i>
3.1 * Survey of village layout, surface and/or groundwater availability. * Testing of water quality and assessment of environmental aspects.	- District survey team, assisted by region if required - DWE - HA	Potential water users	21 days	Checklist	Report containing correct data on all required aspects	- Report - Signed work order
3.2 * Preliminary designs of feasible technical and sanitary options. * Preparation of related bills of quantity. * Estimation of costs for each alternative.	- District design team, assisted by region if required		14 days	Report from activity 3.1	Report containing correct data on all required aspects	- Report - Signed work order
3.3 * General meeting of users to discuss alternatives. * Selection of desired technical option.	- District survey and design teams - CDO - VEO	Potential water users	1 day	Reports from activities 3.1 and 3.2	- Full understanding of the strengths and weaknesses of the alternative designs. - A firm decision by village assembly with regard to preferred alternative, taking into account the needs of women	- Minutes of meeting - List of participants - Signed work order
3.4 * Finalization of selected design and related budget. * Detailed physical work planning.	- District survey, design and construction teams		7 days	Outcome of activity 3.3	- Report on final design and cost estimate - Detailed physical work plan	- Report and plan - Signed work order

STEP-BY-STEP PROJECT PROCEDURE

STEP 4 COMMUNITY MOBILIZATION AND DEVELOPMENT		AIM: <i>to form user groups and user group committees, inform them about rights and responsibilities, train the user group committees and sign contracts</i>				
Activity <i>(What should be done)</i>	Facilitator(s) <i>(Who facilitates)</i>	Participant(s) <i>(Who is participating)</i>	Duration <i>(How long)</i>	Material(s) to be used <i>(What to use)</i>	Quantifiable output <i>(What is the end result)</i>	Indicator(s) <i>(How can it be checked)</i>
4.1 Formation of user group(s) according to selected technical option	- CDO - CDA - VEO	Potential water users	1 day	Checklist	Formally established user group(s)	- Minutes of meeting - List of participants - Signed work order
4.2 * User group meeting in which responsibilities, rights, obligations, relationships to authorities as well as sustainability will be discussed. * Election of user group committee.	- CDO - CDA - WEO - VEO	User group	1 day	- Checklist - Training materials	- User group members are fully aware of their responsibilities, rights and obligations as well as their institutional working environment - User group members are understanding the contract procedure and the required self-contribution - Elected user group committee	- Minutes of meeting - List of participants - Signed work order
4.3 General training of user group committees on: - role and responsibilities - how to supervise implementation activities and to carry out quality control - administration and finance	- CDO - CDA - FA/ Maji - HO/HA	User group committee	3 days	- Training materials - Administration and finance handbook	Well trained and capable committee members	Signed work order
4.4 * Planning of implementation activities including self-contribution, inputs by private sector and government. * Information and discussion about the plan with user group.	- CDO - CDA - FA/ Maji - HO/HA	- User group committee - User group	2 days	- Outcome of activity 2.3 - Outcome of activity 3.4 - Checklist	Concrete implementation plan	- Implementation plan - Minutes of meeting - List of participants - Signed work order
4.5 Drafting and signing of contract	- DED - CDO, CDA - VEO	User group committee	1 day	Contract sample	Signed implementation contract	Contract

STEP-BY-STEP PROJECT PROCEDURE

STEP 5 CONSTRUCTION	AIM: <i>to construct the physical water supply system according to agreed design and agreed implementation plan</i>					
Activity <i>(What should be done)</i>	Facilitator(s) <i>(Who facilitates)</i>	Participant(s) <i>(Who is participating)</i>	Duration <i>(How long)</i>	Material(s) to be used <i>(What to use)</i>	Quantifiable output <i>(What is the end result)</i>	Indicator(s) <i>(How can it be checked)</i>
5.1 * Provision of materials and equipment. * Transport of construction tools and equipment.	- construction team (Maji) - contractor - user group committee	User group	2 days		Material and equipment physically at site	Signed work order
5.2 Construction and supervision. - hand pumped wells - other supply	- construction team (Maji) - contractor - user group committee	User group	- 5 days - various	Checklist	Complete and operational supply system according to design	Signed work order
5.3 * Checking the completed supply system against design. * Testing the system and its sanitary environment.	- DWE - user committee - HO	User group committee	1 day	Design documents	Quality control report	- Report - Signed work order
5.4 Review of and discussion about incurred expenditures in comparison to budget.	CDO	User group committee	1 day	Budget	Expenditure report	- Report - Signed work order

STEP-BY-STEP PROJECT PROCEDURE

STEP 6 OPERATION AND MAINTENANCE		AIM: to train operators and user group committees on how to operate and maintain water supply system				
Activity <i>(What should be done)</i>	Facilitator(s) <i>(Who facilitates)</i>	Participant(s) <i>(Who is participating)</i>	Duration <i>(How long)</i>	Material(s) to be used <i>(What to use)</i>	Quantifiable output <i>(What is the end result)</i>	Indicator(s) <i>(How can it be checked)</i>
6.1 Specialized training of operators/user group committees on operation and maintenance system - hand pumped wells - other supply	- MAJI instructors - MAENDALEO instructors - AFYA instructors	- User group committees - operators	- 3 days - various	- Design document - Operation handbook - Maintenance handbook	Well trained and competent operators and user committee members	Signed work order

APPENDIX IV

Day-to-day Programme Managers

DAY-TO-DAY PROGRAM MANAGERS

Name	Designation
Region	
S.I. Sijaona A.I. Nganga	Regional Planning Officer Planning and Control Officer
M. Malembeka J.K.B. Bwire	Regional Water Engineer Water Engineer
N.J. Masaoe A. Kakai	Regional Health Officer Health Officer
J.D. Masanja E.E. Chissunga	Regional Community Development Officer Community Development Officer
S. Mgongo	Manpower Management Officer HID counterpart
Morogoro Rural District	
B. Mwamwingila A.A. Lymo	District Planning Officer Planning and Control Officer
K. S. Mpute B.D. Kanisa	District Water Engineer Technician
M. Deng'a R.A. Fue	District Health Officer Health Officer
R.R. Ntungilwege S.S. Sarakikya	District Community Development Officer Community Development Officer
Bangwe	District Manpower Management Officer HID counterpart
Kilosa District	
H.A.D. Mwakamoja S.A. Dede	Ag. district Planning Officer Planning and Control Officer
J.M Mdede A. Mayugana	District Water Engineer Technician
K. Katema Msesemeye	District Health Officer Health Officer
H. Omar N.M. Mhame	District Community Development Officer Asst. Community Development Officer
G.T. Tumbo	Manpower Management Officer HID counterpart

DAY-TO-DAY PROGRAM MANAGERS

(Cont'd)

Name	Designation
<i>Kilombero District</i>	
D.M. Mbaku E.C. Liachema G. Kusiluka	District Planning Officer Planning and Control Officer Planning and Control Officer
M.G. Mwangamila A. Lyanga	District Water Engineer Technician
A.M. Makeula Y.T. Kimbunga	District Health Officer Health Officer
Mtemahanji I. Manusa	District Community Development Officer Community Development Officer
I. Mwenda	Manpower Management Officer HID counterpart
<i>Ulanga District</i>	
E. Nkinda B.P. Mganga	District Planning Officer Ag. Planning and Control Officer
T.S. Kibombo D. Bayo	District Water Engineer Technician
D.E. Mlosa C. Kafuka	District Health Officer Health Officer
H. Mabita H. Mahimbo	District Community Development Officer Community Development Officer
A.J.M. Ulaya	Manpower Management Officer HID counterpart

APPENDIX V

District Staff Composition

DISTRICT STAFF COMPOSITION

Health Department

Job title	Number of job holders			
	Morogoro	Kilosa	Kilombero	Ulanga
Health Officer	9	6	4	7
Health Assistant	27	14	26	26
Health Orderlies	10	8	2	0
Village Health Workers	124	131	94	130

Community Development Department

Job title	Number of job holders			
	Morogoro	Kilosa	Kilombero	Ulanga
Community Development Officer	19	8	17	6
Community Development Assistant	14	16	2	2

Water Department

Job title	Number of job holders			
	Morogoro	Kilosa	Kilombero	Ulanga
Field Assistant	10	5	4	4
Surveyor	2	1	3	2
Designer	0	0	0	0
Survey team SW	1	1	1	1
Survey team P/S	1	1	1	1
Design team SW	1	1	1	1
Design team P/S	0	0	0	0
Consturction team SW	1	1	1	1
Construction team P/S	1	1	1	2

APPENDIX VI

Government Manpower

GOVERNMENT MANPOWER

MOROGORO REGION

Morogoro rural district

Department	Number of staff		Number of staff available to program		% of staff available to DWSP	Duty station of available staff	
	Male	Female	Male	Female		Head quarters	Ward/Village
Planning	2	1	1	1	67	2	0
Community Development	18	15	17	14	94	8	23
Water	60	4	60	4	100	23	41
Health	37	9	19	5	52	7	17
Total	117	29	97	24	83	40	81

Kilosa district

Department	Number of staff		Number of staff available to program		% of staff available to DWSP	Duty station of available staff	
	Male	Female	Male	Female		Head quarters	Ward/Village
Planning	2	0	2	0	100	2	0
Community Development	12	12	10	11	88	3	18
Water	50	6	50	6	100	10	46
Health	26	2	23	2	89	7	8
Total	90	20	85	19	95	22	72

GOVERNMENT MANPOWER

MOROGORO REGION (Cont'd)

Kilombero district

Department	Number of staff		Number of staff available to program		% of staff available to DWSP	Duty station of available staff	
	Male	Female	Male	Female		Head quarters	Ward/Village
Planning	3	0	2	0	67	2	0
Community Development	12	7	12	7	100	3	16
Water	32	2	32	2	100	24	10
Health	31	1	30	1	97	6	25
Total	78	10	76	10	98	35	51

Ulanga district

Department	Number of staff		Number of staff available to program		% of staff available to DWSP	Duty station of available staff	
	Male	Female	Male	Female		Head quarters	Ward/Village
Planning	2	0	2	0	100	2	0
Community Development	5	3	5	2	88	3	4
Water	61	30	52	25	85	59	18
Health	30	3	29	3	97	14	18
Total	98	36	88	30	88	78	40

APPENDIX VII

District Implementation Capacity

DISTRICT IMPLEMENTATION CAPACITY

HEALTH DEPARTMENT

Morogoro Rural District

Job title	Number of job holders	% of time for DSWP	Total mandays per year (1)	Activity to be performed	Estimated duration of activity	No. of activities in 1994	Required mandays in 1994
DHO	1	30	70	Management - program management			
HO	1	80	186	Supervision - implementation supervision			
HO	5	60	696	Community awareness - program information	2		0
				Construction - testing sanitary environment	1		0
HA	17	60	2366	Community investigation - data collection	3		0
				- general meeting of water users	1		0
				Survey and design - environment assessment	2		0
				Community mobilization and development - general training (5 user groups)	3		0
				- implementation planning	2		0
				Operation and maintenance - specialized training (5 user groups)	3		0

(1) based on 232 effective mandays in a year

DISTRICT IMPLEMENTATION CAPACITY

HEALTH DEPARTMENT

Kilosa District

Job title	Number of job holders	% of time for DSWP	Total mandays per year (1)	Activity to be performed	Estimated duration of activity	No. of activities in 1994	Required mandays in 1994
DHO	1	30	70	Management - program management			
HO	1	75	174	Supervision - implementation supervision			
HO	3	50	348	Community awareness - program information	2		0
				Construction - testing sanitary environment	1		0
HA	20	80	3712	Community investigation - data collection	3		0
				- general meeting of water users	1		0
				Survey and design - environment assessment	2		0
				Community mobilization and development - general training (5 user groups)	3		0
				- implementation planning	2		0
				Operation and maintenance - specialized training (5 user groups)	3		0

(1) based on 232 effective mandays in a year

DISTRICT IMPLEMENTATION CAPACITY

HEALTH DEPARTMENT

Kilombero District

Job title	Number of job holders	% of time for DSWP	Total mandays per year (1)	Activity to be performed	Estimated duration of activity	No. of activities in 1994	Required mandays in 1994
DHO	1	30	70	Management - program management			
HO	1	80	186	Supervision - implementation supervision			
HO	3	50	348	Community awareness - program information	2		0
				Construction - testing sanitary environment	1		0
HA	26	80	4826	Community investigation - data collection	3		0
				- general meeting of water users	1		0
				Survey and design - environment assessment	2		0
				Community mobilization and development - general training (5 user groups)	3		0
				- implementation planning	2		0
				Operation and maintenance - specialized training (5 user groups)	3		0

(1) based on 232 effective mandays in a year

DISTRICT IMPLEMENTATION CAPACITY

HEALTH DEPARTMENT

Ulanga District

Job title	Number of job holders	% of time for DSWP	Total mandays per year (1)	Activity to be performed	Estimated duration of activity	No. of activities in 1994	Required mandays in 1994
DHO	1	30	70	Management - program management			
HO	1	80	186	Supervision - implementation supervision			
HO	5	50	580	Community awareness - program information	2		0
				Construction - testing sanitary environment	1		0
HA	24	80	4454	Community investigation - data collection	3		0
				- general meeting of water users	1		0
				Survey and design - environment assessment	2		0
				Community mobilization and development - general training (5 user groups)	3		0
				- implementation planning	2		0
				Operation and maintenance - specialized training (5 user groups)	3		0

(1) based on 232 effective mandays in a year

DISTRICT IMPLEMENTATION CAPACITY

COMMUNITY DEVELOPMENT DEPARTMENT

Morogoro Rural District

Job title	Number of job holders	% of time for DSWP	Total mandays per year (1)	Activity to be performed	Estimated duration of activity	No. of travel days	No. of possible activities per year
District CDO	1	50	116	Management - program management			
CDO	1	80	186	Supervision - implementation supervision			
CDO/CDA	29	50	3364	Community awareness - program information Community investigation - data collection - general meeting of water users Survey and design - general meeting with water users Community mobilization and development - user group formation - user group committee election - general training (5 user groups) - implementation planning - contract agreement Construction - expenditure review Operation and maintenance - specialized training (5 user groups)	1 4 1 1 1 3 2 1 1 3	12	112

(1) based on 232 effective mandays in a year

DISTRICT IMPLEMENTATION CAPACITY

COMMUNITY DEVELOPMENT DEPARTMENT

Kilosa District

Job title	Number of job holders	% of time for DSWP	Total mandays per year (1)	Activity to be performed	Estimated duration of activity	No. of travel days	No. of possible activities per year
District CDO	1	40	93	Management - program management			
CDO	1	80	186	Supervision - implementation supervision			
CDO/CDA	24	60	3341	Community awareness - program information Community investigation - data collection - general meeting of water users Survey and design - general meeting with water users Community mobilization and development - user group formation - user group committee election - general training (5 user groups) - implementation planning - contract agreement Construction - expenditure review Operation and maintenance - specialized training (5 user groups)	1 4 1 1 1 3 2 1 1 3	12	111

(1) based on 232 effective mandays in a year

DISTRICT IMPLEMENTATION CAPACITY

COMMUNITY DEVELOPMENT DEPARTMENT

Kilombero District

Job title	Number of job holders	% of time for DSWP	Total mandays per year (1)	Activity to be performed	Estimated duration of activity	No. of travel days	No. of possible activities per year
District CDO	1	50	116	Management - program management			
CDO	1	80	186	Supervision - implementation supervision			
CDO/CDA	17	50	1972	Community awareness - program information Community investigation - data collection - general meeting of water users Survey and design - general meeting with water users Community mobilization and development - user group formation - user group committee election - general training (5 user groups) - implementation planning - contract agreement Construction - expenditure review Operation and maintenance - specialized training (5 user groups)	1 4 1 1 1 3 2 1 1 3	12	66

(1) based on 232 effective mandays in a year

DISTRICT IMPLEMENTATION CAPACITY

COMMUNITY DEVELOPMENT DEPARTMENT

Uianga District

Job title	Number of job holders	% of time for DSWP	Total mandays per year (1)	Activity to be performed	Estimated duration of activity	No. of travel days	No. of possible activities per year
District CDO	1	50	116	Management - program management			
CDO	1	100	232	Supervision - implementation supervision			
CDO/CDA	5	50	580	Community awareness - program information Community investigation - data collection - general meeting of water users Survey and design - general meeting with water users Community mobilization and development - user group formation - user group committee election - general training (5 user groups) - implementation planning - contract agreement Construction - expenditure review Operation and maintenance - specialized training (5 user groups)	1 4 1 1 1 3 2 1 1 3	12	19

(1) based on 232 effective mandays in a year

DISTRICT IMPLEMENTATION CAPACITY

WATER DEPARTMENT Morogoro rural district

Job title	Number of job holders/ teams	% of time for DWSP	Total mandays per year (1)	Activity to be performed	Estimated duration of activity		No. of travel days		No. of possible activities per year	
					New SW	Rehab SW	New SW	Rehab SW	New SW	Rehab SW
DWE	1	80	232	Management - program management	232					
Technician	1	100	232	Supervision - implementation supervision	232					
Field Asst.	10	100	2320	Community awareness - program information Community investigation - data collection - identification of fundis - general meeting of water users Community mobilization and development - general training (5 user groups) - implementation planning Operation and maintenance - specialized training (5 user groups)	1 3 1 1 3 2 3	1 3 1 1 3 2 3	22	22	105	
Survey team SW	1	100	232	Survey - survey of village and water - general meeting of water users	21 1	0 0	2	0	9	
Design team SW	1	100	232	Design - preliminary design - general meeting of water users - finalization of design	14 1 7	0 0 0	2	0	10	
Construction team SW	1	100	232	Construction - physical work planning - implementation	1 7	5	2	2	23	0

(1) based on 232 effective mandays in a year

DISTRICT IMPLEMENTATION CAPACITY

WATER DEPARTMENT Kilosa district

Job title	Number of job holders/ teams	% of time for DWSP	Total mandays per year (1)	Activity to be performed	Estimated duration of activity		No. of travel days		No. of possible activities per year	
					New SW	Rehab SW	New SW	Rehab SW	New SW	Rehab SW
DWE	1	50	116	Management - program management	232					
Technician	1	100	232	Supervision - implementation supervision	232					
Field Asst.	5	100	1160	Community awareness - program information Community investigation - data collection - identification of fundis - general meeting of water users Community mobilization and development - general training (5 user groups) - implementation planning Operation and maintenance - specialized training (5 user groups)	1 3 1 1 3 2 3	1 3 1 1 3 2 3	22	22	53	
Survey team SW	1	100	232	Survey - survey of village and water - general meeting of water users	21 1	0 0	2	0	9	
Design team SW	1	100	232	Design - preliminary design - general meeting of water users - finalization of design	14 1 7	0 0 0	2	0	10	
Construction team SW	1	100	232	Construction - physical work planning - implementation	1 7	5	2	2	23	0

(1) based on 232 effective mandays in a year

DISTRICT IMPLEMENTATION CAPACITY

WATER DEPARTMENT Kilombero district

Job title	Number of job holders/ teams	% of time for DWSP	Total mandays per year (1)	Activity to be performed	Estimated duration of activity		No. of travel days		No. of possible activities per year	
					New SW	Rehab SW	New SW	Rehab SW	New SW	Rehab SW
DWE	1	80	232	Management - program management	232					
Technician	1	100	23200	Supervision - implementation supervision	232					
Field Asst.	4	100	928	Community awareness - program information Community investigation - data collection - identification of fundis - general meeting of water users Community mobilization and development - general training (5 user groups) - implementation planning Operation and maintenance - specialized training (5 user groups)	1 3 1 1 3 2 3	1 3 1 1 3 2 3	22	22	42	
Survey team SW	1	100	232	Survey - survey of village and water - general meeting of water users	21 1	0 0	2	0	9	
Design team SW	1	100	232	Design - preliminary design - general meeting of water users - finalization of design	14 1 7	0 0 0	2	0	10	
Construction team SW	1	100	232	Construction - physical work planning - implementation	1 7	5	2	2	23	0

(1) based on 232 effective mandays in a year

WATER DEPARTMENT
Ulanga district

Job title	Number of job holders/ teams	% of time for DWSP	Total mandays per year (1)	Activity to be performed	Estimated duration of activity		No. of travel days		No. of possible activities per year	
					New SW	Rehab SW	New SW	Rehab SW	New SW	Rehab SW
DWE	1	80	232	Management - program management	232					
Technician	1	100	23200	Supervision - implementation supervision	232					
Field Asst.	4	100	928	Community awareness - program information Community investigation - data collection - identification of fundis - general meeting of water users Community mobilization and development - general training (5 user groups) - implementation planning Operation and maintenance - specialized training (5 user groups)	1 3 1 1 3 2 2	1 3 1 1 3 3 3	22	22	42	
Survey team SW	1	100	232	Survey - survey of village and water - general meeting of water users	21 1	0 0	2	0	10	
Design team SW	1	100	232	Design - preliminary design - general meeting of water users - finalization of design	14 1 7	0 0 0	2	0	10	
Construction team SW	1	100	232	Construction - physical work planning - implementation	1 7		2	0	23	0

(1) based on 232 effective mandays in a year

APPENDIX VIII

Terms of Reference for Gender Impact Study

TERMS OF REFERENCE FOR A GENDER IMPACT STUDY ON THE DOMESTIC WATER SUPPLY IN SHINYANGA REGION

1. BACKGROUND

During the last 20 years the Netherlands have supported a Domestic Water Supply and sanitation programme in Shinyanga Region. The long term objective of the programme has been to improve the living conditions of the communities by providing access to adequate (sufficient and safe) water supply close to homesteads in a sustainable way.

The above programme has undergone a number of changes during its existence. Over the years, the focus of the programme has shifted from target orientations to sustainability orientations, with an emphasis on community participation. Another change of the programme has been the inclusion of sanitation and health improvement in its objectives. The evaluation of the programme undertaken in 1991, concluded that, despite the considerable room for improvement in approach there were sufficient results to merit a continuation of the programme for another 5 years. The formulation of the new phase (1993-1998) of the project was thus undertaken.

During the new phase of the programme, special attention will be paid to the Human Resources and Institution Development aspects, and the further strengthening of the Community Development and Women in Development activities, aided by structured training programmes. In order to optimise the activities under the Programme related to the Gender Impact issues, there has been a felt need of conducting a GIS study during the Inception Period of the new phase. These TORs are for engaging the services of a team of local Researchers to conduct the GIS Study in Shinyanga Region.

2. OBJECTIVE

The objective of the GIS study is to gather specific gender information and come up with an action oriented document that shall provide practical recommendations on how to plan, implement and monitor the project activities of the Domestic Water Supply programme in Shinyanga Region with a maximal positive effect on women.

3. SCOPE OF WORK

Supervised by a Regional Research Coordinator, a two district teams of local researchers, each one led by a District Research Coordinator shall be responsible for performing the following tasks at two villages in each District (i.e a total of 4 villages in two districts):

- a. preparing a detailed outline of the workplan for the study for approval at the Embassy (Regional Research Coordinator).

b. familiarise with the programme's documentation prior to the study. The above documentation and other related information can be obtained at the Embassy, the project site and at the districts selected for the study (Regional/District Research Coordinators).

c. conduct/participate in the proposed one day preparatory workshops for the study at the regional and at the district levels (Regional/District Research Coordinators).

d. undertake a 21 days field work in the respective villages in each district. (Regional Research Coordinator/ District Research Teams). In the field the Research Team shall:

- collect relevant gender specific baseline data which shall indicate:

i) the position of women and gender relations in the project area - e.g. women's access/involvement and control over the different activities in their communities, and,

ii) an overview of the available opportunities for women in the area-e.g. specific women organisations/NGOs/other institutions and Government's support for women at village level.

- assess the likely positive and negative effects of the Domestic Water Supply programme on the gender relations and empowerment of women in the area- e.g. how are the project's activities going to develop or hinder women's access and control over aspects like i) living conditions i.e. water and sanitation/housing/environment, ii) nutrition/health, iii) knowledge and skills, iv) income, v) participation in decision making in the villages' institutions, vi) confidence building and organisational capacity, vii) workload etc.

- assess the perceptions and expectations of women (and men) with regard to the programme activities and interventions.

- appraise the way in which women (and men) in the project area will have an impact on the project decisions and on how the women shall be able to effectively participate in the implementation throughout the different stages of the programme.

- identify perceptions and attitudes towards gender issues among male and female staff of the Districts/Region institutions and other organizations involved (or to be involved) in the implementation of the programme.

Identify also constraints and opportunities of these institutions for the implementation of a gender oriented programme.

- analyze the (im)possibilities of preventing negative effects and stimulate the positive ones by suggesting pre-conditions, adaptations, and alternatives for the programme to strengthen women's empowerment and to ensure their maximum participation in it.

- formulate practical recommendations focussing on what steps should be taken so that the water programme in the Region takes into maximum consideration the identified needs and interests of women. Also formulate practical recommendations on those aspects which will have to be monitored during the programmes' implementation.

e. Consult and discuss the findings of the study with the villagers (both women and men), District and Regional officials, project personel and the Embassy (Regional Research Coordinator/District Research Teams).

f. submit a draft report of the GIS and a final report after incorporation of the comments from the field and the Embassy.

4. METHODOLOGY

The District Research Teams shall be based in the two Districts selected in Shinyanga Region. In each two villages with different socio-economic conditions will be selected. All research activities in the Region shall be coordinated by a Regional Research Coordinator. The composition of the the Research Teams shall thus be as follows:

Regional Research Coordinator in charge of overall supervision

Two District Research Teams- District Research Coordinator
CD/WID Specialist
Water Specialist
Health Specialist

At the Village level each District Team will include two animators(one woman and one man)

In conducting the Study, the District Research Teams shall work in close cooperation with the District officials, project personnel, other institutions and both women and men in the villages. The District Research Teams shall be expected to use, participatory methods (e.g. conducting workshops, roundtable discussions, structured and unstructured

interviews, participant observation, etc. In this respect the Regional/District Research Coordinators shall plan for

- two one day workshops at the regional level (one for orientation and planning in the initial period, and one to discuss the findings after the field work)

- two one day workshops at each district (one for training the research team--involving the 2 village animators on the actual details of the research work in the initial period and one as feedback mechanism at the end of the field work).

5. REPORTING

The report for submission shall not exceed 20 pages and shall be as concise and practical as possible, based on the field analysis of the GIS as related to the programme. The final report of the study shall be expected not later than 30th September, 1993.

5. DURATION

The Study is expected to take a total of 7 weeks involving 14 days in preparation for the study (i.e. data collection/discussions at the Embassy, Regional/project personnel, regional workshops and travelling to the districts mainly for the Regional Research Coordinator), 21 days of fieldwork in the villages under study for District Research Teams, and 14 days for feedback workshops at district and regional level, producing draft report, travelling to DSM (Regional and District Research Coordinators and other key personnel in the study to brief the Embassy and Sectorial Ministries) and finalisation of the report.

6. BUDGET

Professional fees

Regional Res. Coordinator 50 days @-----Tshs-----
District Res. Coordinators 33 days @ 2 @---Tshs-----
Village animators 25 days @ 8 @ ----- Tshs-----

DSA/PER DIEMS

Regional Res. Coordinator-1-50 days @-----Tshs-----
District Res. Coordinators-2 -----Tshs-----
Village animators- 8 -----Tshs-----

Transportation costs

Regional Res.Coordinator
Dar- Shinyanga- to the 2 districts- villages and back to Dar----.
District Res. Coordinators-2 and Village animators-8
District- Shinyanga- District- villages and back Shinyanga and Dar.

to

Village animators

villages-district -villages-and back to the dis-
tricts and villages

Production of Reports

stationery
computer costs
printing & binding

APPENDIX IX

Water Supply Data

06-Oct-93 District Domestic Water Supply Program Morogoro

1	2	3	4	5	6	Not working		10	11	12	13
District name	Total Pop.	Served Pop.	Ring wells	Tube wells	DWP	Ring wells	Tube wells	Village not accessible	SW not possible	New SW construc-tion	New IWP construc-tion
Morogoro Rural District	438382	126061	1	368	365	0	98	79644	194260	473	612
Kilosa District	377257	103421	9	470	202	9	231	23802	103634	519	338
Kilimbero District	181212	84119	21	165	246	16	17	2682	40321	246	67
Ulanga District	151960	50998	37	131	154	28	5	6613	70241	159	159
Total Morogoro Region	1148811	364599	68	1134	967	53	351	112741	409256	1398	1176

14	15	16	17	18	19	20	21
	Total number Waterpoints	Available Infrastructure	Infra struc. %	Working Infrastructure no. of waterpoints	Coverage %	Coverage %	% not working infrastructure / to be repaired
Morogoro Rural District	734	183500	42	543	126061	29	26 %
Kilosa District	681	170250	45	419	103421	27	38 %
Kilimbero District	432	108000	60	360	84119	46	17 %
Ulanga District	322	80500	53	209	50998	34	35 %
Total Morogoro Region	2169	542250	47	1531	364599	32	29 %

Column

- 1 and 14 District names
- 2 Total population per District
- 3 Served population by shallow wells or piped water supply system. It is counted, that 250 capita are served by one (working) IWP (Improved Water Point)
- 4 Total number of ringwells. They are hand dug wells with a brick or concrete lining. The diameter can be 1.00 m or more, sometimes equipped with a handpump.
- 5 Drilled Shallow wells with diameters up to 20 cm. Mostly with PVC casing. Shallow wells always have to be equipped with a handpump.
- 6 A DWP (Domestic Waterpoint) is a public tapping point of a piped water supply system. Same as 4, 5 and 6, but out of order in March 1992.
- 7, 8 and 9 Total number of population of villages, which are (all year)not accessible by car.
- 10 Total number of population of villages, where shallow wells can not be constructed.
- 11 Shallow wells can not be constructed, because of shallow basement, deep ground water or ground water not suitable for human consumption.
- 12 Total number of waterpoints to be added, to reach 100 % service coverage.
- 13 Shallow wells and DWP's from a piped water supply system are possible.
- 14 Total number of waterpoints to be added, to reach 100 % service coverage.
- 15 Shallow wells are not possible. Either a piped watersupply system or other system is required.
- 16 Total number of population for which infrastructure is available (under 15) at 250 cap/IWP.
- 17 Percentage of service coverage with the available infrastructure (under 15) at 250 cap/IWP. Same as 15, 16 and 17, but only for working infrastructure (March 1992).
- 18, 19 and 20 Percentage of infrastructure, which is not working and has to be repaired.
- 21

Villages in MOROGORO REGION and water supply systems. -- MAJI / MRWSP

250 Cap/IWP

Villagename	Piped Syst.	Total Pop.	Served Pop.	Available Infrastructure			Not working			Water Qty	Village not Access (Pop)	Shallow well not possible (Pop)	New Sh.well construction	New IWP constr. -tion
				Ring wells	Tube wells	DWP	Ring wells	Tube wells	DWP					
69 Kipera	G	3414	2000		4	4							6	
70 Kironko		709											3	
71 Kiroka		5157	500		4			2		Sat			17	
72 Kirunga														
73 Kisasi Kituoni		2114	250		1					Sat			7	
74 Kisala		1155	250		5			4		Good				
75 Kisanga Stand		1694	250		2			1		Good			5	
76 Kisimagulu		1075									1075			4
77 Kiswira	G	1540	1540			15			8		1540			
78 Kitonga		1204									1204			5
79 Kilunga		1519									1519	1519		6
80 Kitungwa A	G	2497	2000			8					2497			2
81 Kitungwa B		1490											6	
82 Kitungwa		1339											5	
83 Kiwege		926	250		4			3		Sat				
84 Kizagila		637									637		3	
85 Kizinga	G	1525	1525			8					1525			
86 Kiziwa		3544	250		4			3		Sat			10	
87 Kododo		2758									2758	2758		11
88 Koleru		1709									1709			7
89 Koloni		1549									1549			6
90 Komtonga		1376									1376	1376		6
91 Konde		1630									1630	1630		7
92 Konga/Vikenge	G	1885	1885		3	10				Good				
93 Kongwa		2342	750		3					Sat	2342		6	
94 Kumba		1563									1563			6
95 Kunke		2148	1750		7					Good			2	
96 Kwaba		901	250		1					Sat			3	
97 Komtonga		1486	250		1					Sat			5	
98 Kwelikwiji		1960									1960		8	
99 Langali	G	2873	2873			12						2873		
100 Lanzi		1158									1158	1158		5
101 Legezamwendo	G	1742	1742			10								
102 Logo		1113	750		3					Good	1113		1	
103 Longwe		663									663	663		3
104 Luale		3080									3080	3080		12
105 Lubasazi		1305									1305	1305		5
106 Lubumu		406	250		4			3		Good				
107 Lubungo A		1382											6	
108 Lubungo B		1308			1			1		Good			4	
109 Lugeni		977									977	977		4
110 Luhindo	EP	1018	1018			6								
111 Luholole		2416	1250		5					Good	2416		5	
112 Lukange		2320									2320		9	
113 Lukenge		792									792	792		3
114 Lukenge	DP	1049	1049			7						1049		
115 Lukobe	EP	1419	1419		3	6		1		Sat				
116 Lukulunge		622	250		2			1		Good	622			
117 Lukunguni		2045										2045		8
118 Lukuyu		1027									1027	1027		4
119 Lumba Chini		2823									2823	2823		11
120 Lumba Juu		1287									1287	1287		5
121 Lulongwe		1005	250		1					Good			3	
122 Lundi		2325			1			1					8	
123 Lungu		1881	1250		5					Good			3	
124 Lusanga		4119	4000		16								0	
125 Lusange		1365									1365	1365		5
126 Lusungi		1661									1661	1661		7
127 Mambani		1626									1626	1626		7
128 Madizini		2794	500		9			7		Good			2	
129 Mafuta		1031	250		1					Good	1031		3	
130 Magali		754	750		3					Good				
131 Magela		473	473		3					Sat				
132 Magogoni		935	250		4			3		Good				
133 Magunga		795											3	
134 Maguruwe		1579									1579	1579		6
135 Maharaka		4000	1000		4					Good			12	
136 Makuyu		2762	500		4			2		Good			7	

Villages in MOROGORO REGION and water supply systems. - MAJI / MRWSP

250 Cap/IWP

Villagename	Piped Syst.	Total Pop.	Served Pop.	Available Infrastructure			Not working			Water Qty	Village not Access (Pop)	Shallow well not possible (Pop)	New Sh. well constr. -tion	New IWP constr. -tion
				Ring wells	Tube wells	DWP	Ring wells	Tube wells	DWP					
137 Malani		1030									1030	1030		4
138 Mangae		1363	1000		5			1		Sat				
139 Manyinga		2875	2000		8					Good			4	
140 Manza		670			3			3		Good	670			
141 Masalawe		1401									1401	1401		6
142 Maseyu		1577										1577		6
143 Masimba		1117											4	
144 Maskati	G	3761	1000			4						3761		11
145 Matale		941											4	
146 Matuli		1824	1250		5					Sat			2	
147 Mbigiri Prison	DP	1198	250		1					good			4	
148 Mbogo		2744	2000		8					Sat			3	
149 Mbwade		2551	2551		11					Good				
150 Melela	G	4483	1000		4	17			17					
151 Mifulu		2059									2059	2059		8
152 Mfumbwe		2360	1250		5					Good	2360		4	
153 Mgata		1543										1543		6
154 Mgudeni		1352			2			2		Good	1352		3	
155 Mhale		1724										1724		7
156 Mhonda	G	2587	2500			10				good			7	
157 Mhonda Prison		1863											7	
158 Mikese	DP	2040	1250			9			4	Sat			6	
159 Mikesemjini		1859			1			1		Sat				
160 Milengwengwe		1329	1000		6			2		Good				
161 Mindu		2279										2279		9
162 Milama		1538	1538		7					Sat				
163 Misongeni	G	2792	1000			4						2792		7
164 Mkata	DP	317	250			1						317		
165 Mkata (Modeco)	DP	416	250			1						416		1
166 Mkindo		3473	250		4			3		Good			10	
167 Mkololo		285									285	285		1
168 Mkono wa Mara		759										759		3
169 Mkulazi		621										621		2
170 Mkundi		1459	250		1					Good			5	
171 Mkuyuni		3349	250		1								12	
172 Mlali	G	2256	2256		9	11			2	Sat			-2	
173 Mlaguzi		760									760	760		3
174 Mlawilila		784											3	
175 Mlilingwa		653										653		3
176 Mlono		1606									1606	1606		6
177 Mngazi		1813	750		6			3		Good			1	
178 Msolokelo		742									742	742		3
179 Msonge		1190	500		4			2		Good			1	
180 Msongozi		2087	1500	1	7			2		Sat				
181 Msufini		917	250		2			1		Sat			2	
182 Mtamba	G	3938	2500			16			6			3938		
183 Mtibwa		4083	1250		5					Good			11	
184 Mtombozi	G	1244	1000			4						1244		1
185 Muhunga Mkola		504	250		2			1						
186 Mvomero	G	7128	4750		3	16				good			10	
187 Mvuha		2900	500		10			8		Good			2	
188 Mwalazi		1359											5	
189 Mwarazi		1924									1924		8	
190 Mziha		2701	500		3			1		Good			8	
191 Mzumbe	G	2962	2500			10						2962		2
192 Mzumbe Secondary	G	948	948			4						948		
193 Ndote		900	500		2					Good			2	
194 Ngerengere	EP	3045	1500		1	10			5	Sat			1	
195 Ngong'olo		1958									1958	1958		8
196 Ngweme		492									492	492		2
197 Ngungulu		1268									1268	1268		5
198 Ntala		1323									1323	1323		5
199 Nyachilo		2248									2248	2248		9
200 Nyamigadu A		1160									1160	1160		5
201 Nyamigadu B		956									956	956		4
202 Nyandira		2692										2692		11
203 Nyarutanga		3486	1250		10			5		Good			4	
204 Nyingwa		1832									1832	1832		7

Villages in MOROGORO REGION and water supply systems. - MAJI / MRWSP

250 Cap/IWP

Villagename	Piped Syst.	Total Pop.	Served Pop.	Available Infrastructure			Not working			Water Qty	Village not Access (Pop)	Shallow well not possible (Pop)	New Sh.well construction	New IWP construction
				Ring wells	Tube wells	DWP	Ring wells	Tube wells	DWP					
205 Pandambili		981									981		4	
206 Pangawe	G	2733	1000			10			6		2733		1	
207 Peko Misegese		3412									3412		14	
208 Pemba		3111									3111		12	
209 Pinde		1014									1014		4	
210 Rudowa		3506									3506		14	
211 Sangasanga	G	1095	1095		2	4					1095			
212 Semwali		1170									1170		5	
213 Seregete A		343									343		1	
214 Seregete B		771									771		3	
215 Sesenga		1289	250		1				Good			4		
216 Singisa		1759										7		
217 Sinyaulime		1376									1376		6	
218 Tambuu		3850									3850		15	
219 Tandai		3393										14		
220 Tandali		1652										7		
221 Tandari		1430									1430		6	
222 Tangeni		4290									4290		17	
223 Tawa		3474	2000		1	7			Sat			6		
224 Tchenzema		2155									2155		9	
225 Tegetero		1409									1409		6	
226 Temekelo		758									758		3	
227 Tulo		1061									1061		4	
228 Tunji	DP	1412	500			2					1412		4	
229 Tununguo		1875	250		3			2	Good			5		
230 Ubiri		946								946	946		4	
231 Ukwama		1427								1427	1427		6	
232 Uponda Chini		2090								2090		8		
233 Usungura		952										4		
234 Vigolegole		2797	750		6			3	Good			5		
235 Vihengele		1234									1234		5	
236 Vinile		876								876	876		4	
237 Visaraka		1024	250		2			1	Sat			2		
238 Wami Dakawa Agr.	DP	446	250			1			good		446		1	
239 Wami Kuu Prison	DP	532	250		1				good			1		
240 Wami Vijana Prison	DP	329	250		1				good					
241 Wami Dakawa	EP	3062	2750		10	1			good			1		
TOTAL MOROGORO DISTRICT		438382	126061	1	368	365		98	93		79644	194260	471	609

1 Berega	EP	3441	2750		10	8		7	Good					
2 Chabima		603			1			1	Sat			1		
3 Chagongwe		2152									2152		9	
4 Chakwale/Gairo	G	5678	4750		6	18		5	Sat					
5 Changarawe	EP	3118	2000			8						4		
6 Chanjale		2223									2223		9	
7 Chanzuru	EP	2534	2250		9	6		6	Good					
8 Chogonli		1784										7		
9 Chonwe		2346								2346	2346		9	
10 Dodoma		1709	250		3			2	Good			4		
11 Dumila	EP	4458	2250		4	13		2	Sat			1		
12 Gairo	G	10377	2500			10					10377		32	
13 Idibo		3874	250		5			4	Sat			10		
14 Ibindo		1681	250		4			3	Sat			3		
15 Ibingu		1430			2			2	Good			4		
16 Ibuti		2240									2240		9	
17 Ifunde		462										2		
18 Ihenje		2109	250		1				Sat			7		
19 Ihombwe		441										2		
20 Ikwamba		2538								2538	2538		10	
21 Ilakala		1982	750		3				Sat			5		
22 Ilonga	DP	8099	1000	1	7	3	1	6	Good			21		
23 Italagwe		3542	500		4			2	Sat			10		
24 Iwemba		1521	1500		6				Good			0		
25 Iyogwe		3774	750		10			7	Sat			5		
26 Kasiki		5661	500	1	5		1	3				17		
27 Kibedya/Gairo	G	6538	1250		1	5		1	Sat			20		

Villages in MOROGORO REGION and water supply systems. -- MAJI / MRWSP

250 Cap/IWP

Villagename	Piped Syst.	Total Pop.	Served Pop.	Available Infrastructure			Not working			Water Qty	Village not Access (Pop)	Shallow well not possible (Pop)	New Sh.well construc-tion	New IWP constr.-tion
				Ring wells	Tube wells	DWP	Ring wells	Tube wells	DWP					
96 Mgogozi Chabi		2332	500		6			4		Good			3	
97 Muhenda		3178	1250		5					Sat			8	
98 Mikumi Mjini	G	5239	3250		3	13		1	2	Sat			5	
99 Mkalama/Gairo	G	1904	250			1						1904		7
100 Mkata		386										386		2
101 Mkobwe		1920										1920		8
102 Mkundi		770	770		5					Sat		770		
103 Mkung'hulu		1786	500		5			3		Good			2	
104 Mkwatani		6992	500		7			5		Good			21	
105 Mlumba		1000											4	
106 Msawa		1756								Good			7	
107 Msimba		1944	1250		7			2		Sat			1	
108 Msingisi/Gairo	G	2613	750			3						2613		7
109 Msolwa		2348		1	1		1	1		Good			7	
110 Msowero		2519								Sat		2519		10
111 Msowero		1467	1250		5					Good			1	
112 Msowero	EP	7215	2000			8				Good			21	
113 Mtega		2267									2267	2267		9
114 Mtumbatu	DP	2971	500			2						2971		10
115 Munisagara		1639	500		4			2		Good	1639		3	
116 Muungano		2649	250		5			4		Good			6	
117 Mvumi	EP	5357	1500		1	6		1		Good			14	
118 Mwandi		2118	750		11			8		Sat				
119 Mzaganza		1234	250		4			3		Good			1	
120 Ndogomi		1156			2			2		Sat			3	
121 Nguyami		2442	750		5			2		Sat			5	
122 Njungwa		2443									2443	2443		10
123 Nongwe		1891										1891		8
124 Nyali		1515	1000		4					Sat			2	
125 Nyameni		2343			1			1		Sat			8	
126 Nyangala		941			2			2		Sat			2	
127 Peapea		1839	1250		5					Good			2	
128 Ruaha		8201	1000		10			6		Good		8201		23
129 Rubeho/Gairo	G	3857	1500			6							9	
130 Rudewa Batini		3257	2500		11			1		Good			2	
131 Rudewa Gongoni	EP	2874				8			8			2874		3
132 Rudewa Mbuyuni		2817	2250		10			1		Good			1	
133 Tindiga		5835	1000		11			7		Good			12	
134 Tundu		2336	500		6			4		Good			3	
135 Twatwatwa	DP	255	255			3						255		
136 Udung'hu		3362									3362	3362		13
137 Ukwamani/Gairo	G	2825	1000			4						2825		7
138 Ulaya	DP	2363	500			2							7	
139 Ulaya Mbuyuni	DP	966	500		1	1				Sat			2	
140 Ufeling'ombe		1889	1250		5					Good			3	
141 Unone		1358	500		2								3	
142 Uponela		2579									2579	2579		10
143 Vidunda		2280									2280	2280		9
144 Zombo Lumbo	EP	2016	1250		1	5		1		Sat			2	
145 Ruhembe		3412	1250		10			5					4	
TOTAL KILOSA DISTRICT		377257	103421	9	470	202	9	231	22		23802	103834	519	338

1 Chisano		1015	500		2					Good			2	
2 Chita	G	5462	3000			12							10	
3 Ichonde	G	1109	1109			6								
4 Idete		5006	250		2			1		Saline			18	
5 Ifakara Mjini	EP	11963	3750		26	13		11	13	Good		11963		9
6 Kalengalo		3027	250		1								11	
7 Kamwene		4992	250		1					Good			19	
8 Katindiuka		1620	1620		7					Good				
9 Katurukila		1851	750	6	3		6			Sat				
10 KDC	P	7757	6500			26							5	
11 Kibaoni	EP	4409	1750		1	6				Good		4409		11
12 Kiberege	G	4510	4510	2	11	7				Sat				
13 Kidatu	G	4923	1750			10			3			4923		10
14 Kikawila	G	4726	3500	1	2	12	1			Good			4	

Villages in MOROGORO REGION and water supply systems. - MAJI / MRWSP

250 Cap/IWP

Villagename	Piped Syst.	Total Pop.	Served Pop.	Available Infrastructure			Not working			Water Qty	Village not Access (Pop)	Shallow well not possible (Pop)	New Sh.well construction	New IWP constr. -tion
				Ring wells	Tube wells	DWP	Ring wells	Tube wells	DWP					
27 Kivukoni		3443	2250		9					Good			5	
28 Lugala/Malinyi	DP	1567	1567		8	1			1	Good				
29 Luhombero		3588	3250	1	13		1			Good				
30 Lukande		969		1			1			Sat		3		
31 Lupiro	DP	2794		1		7	1		7	Sat	2794			3
32 Mabanda		782		1			1			Sat	782			2
33 Madibira	DP	2593	500			2						8		
34 Mahenge Mjini	G	5405	3500			18			4		5405			4
35 Makanga	G	2340	1500			6					2340			3
36 Malinyi	DP	4344	3000		12	15			15	Sat				
37 Mavimba	DP	2184	2000		8	6			6	Bad				
38 Mbalaganga		1257											5	
39 Mbalinyi		1132	250	1	1		1			Good			3	
40 Mbuga		2249		1			1			Sat	2249			8
41 Mbagula		1230											5	
42 Mdingo		796											3	
43 Mgole		1570									1570		6	
44 Milola		999		1			1			Sat	999			3
45 Minazini (Itete)	DP	5703	250		3			2		Sat			20	
46 Minepa	DP	1256	250		1	11			11	Good				
47 Misegese		2124	2124	1	10					Good				
48 Msogesi		2738									2738		11	
49 Mtimbira	DP	3491	1750		7	5			5	bad			2	
50 Munga/Mtimbira	DP	2009	750	1	3	6	1		6	bad				
51 Mwaya	DP	5461	250	1		13			13	Sat	5461			8
52 Mzelezi		1938	250	1						Sat	1938			7
53 Nakafulu		687		1			1			Sat	687			2
54 Namuhanga														
55 Nawenge	G	2164	1750			7					2164			2
56 Ngoelanga		2453		1			1			Sat	2453			9
57 Njiwa		5573											22	
58 Nkongo		1329									1329			5
59 Ruaha	G	4531	2250			9					4531			9
60 Sali	G	1618	1250			5					1618			1
61 Sofi Majiji		3099		1			1			Sat	3099			11
62 Sofi Mission	Private	996	996			4								
63 Tanga		1338		1			1							4
64 Uponera (Mahenge)		2138	500		2					Good	2138			7
65 Usangule/Mtimbira	DP	3424	2500	1	9	6			6	Good	3424			
66 Vigoi (Mahenge)	G	2865	2500			10					2865			1
TOTAL ULANGA DISTRICT		151960	50998	37	131	154	28	5	80		6613	70241	159	159

APPENDIX X

Training Needs

TRAINING NEEDS SURVEY

HEALTH DEPARTMENT

Felt training need area	Number of responses								Grand total	
	Morogoro rural		Kilosa		Kilombero		Ulanga		HO	HA
	HO	HA	HO	HA	HO	HA	HO	HA		
Techniques for sampling and testing of water	2	5	2	10	3	7	1	1	8	23
Communication skills	3	6	0	6	2	1	0	2	5	15
Delivering training on water borne diseases	0	0	0	0	1	5	0	3	1	8
Planning and budgeting	0	0	1	5	0	0	5	1	6	6
Environmental sanitation	3	5	0	1	0	3	2	3	5	12
Personal hygiene	0	0	0	0	0	0	0	2	0	2
Public health education	5	4	2	8	2	5	4	2	13	19
Latrine construction skills	3	7	2	6	0	6	0	1	5	20
Water treatment techniques	12	7	0	0	0	0	2	3	14	10
Adult training techniques	0	0	0	0	3	1	0	4	3	5
Mobilization skills	2	5	1	1	0	2	2	5	5	13
Administration and management	0	0	0	0	2	0	0	0	2	0

TRAINING NEEDS SURVEY

WATER DEPARTMENT

Felt training need area	Number of responses												Grand total		
	Morogoro rural			Kilosa			Kilombero			Ulanga			FA	Surveyor	Constr.
	FA	Surveyor	Constr.	FA	Surveyor	Constr.	FA	Surveyor	Constr.	FA	Surveyor	Constr.			
Construction of SW	5	0	4	3	3	19	2	0	4	5	0	6	15	3	33
Construction of P/S	5	3	5	0	0	3	7	2	2	3	0	0	15	5	10
Repairing engines and pumps	0	2	3	5	0	0	5	0	1	4	5	2	14	7	6
Surveying of SW and P/S	5	3	0	0	4	8	7	3	0	0	3	0	12	13	8
Water sampling and testing	0	0	0	0	0	2	0	0	0	5	5	0	5	5	2
Technical drawings	2	2	3	0	0	1	0	0	0	0	0	0	2	2	4
Design / Drawing	0	3	1	1	0	0	1	2	0	2	1	0	4	6	1
Planning and budgeting	2	0	0	0	3	0	0	0	1	1	0	0	3	3	1
Administration	0	0	0	0	0	0	0	1	0	0	2	0	0	3	0

APPENDIX XI

Institutional Constraints

INSTITUTIONAL CONSTRAINTS

Constraint	Morogoro rural district						Kilosa district						Kilombero district						Ulanga district						
	Maji (38) ¹		Afya (32) ¹		CD (19) ¹		Maji (15) ¹		Afya (19) ¹		CD (12) ¹		Maji (7) ¹		Afya (19) ¹		CD (14) ¹		Maji (18) ¹		Afya (25) ¹		CD (8) ¹		
	Resp.	%	Resp.	%	Resp.	%	Resp.	%	Resp.	%	Resp.	%	Resp.	%	Resp.	%	Resp.	%	Resp.	%	Resp.	%	Resp.	%	
Difficult to identify who is in charge	0	0	1	3	2	11	0	0	3	16	3	25	0	0	2	11	1	7	0	0	0	0	0	0	
Difficult to get decisions from superior	7	18	1	3	6	32	1	7	7	37	4	33	0	0	1	5	0	0	1	6	0	0	1	13	
Flow of documents is slow or documents are not passed on at all	18	47	23	72	13	68	2	13	10	53	3	25	1	14	7	37	1	7	4	22	25	100	1	13	
Funds are not available when required	15	39	29	91	16	84	7	47	8	42	7	58	4	57	17	89	12	86	12	67	25	100	1	13	
Too many different work tasks in my work unit	15	39	8	25	1	5	1	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
My workload is too heavy	6	16	9	28	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Too few employees in my work unit	14	37	7	22	5	26	2	13	5	26	1	8	1	14	2	11	0	0	2	11	3	12	1	13	
No clear or adequate job description	7	18	5	16	1	5	2	13	6	32	4	33	1	14	3	16	2	14	2	11	0	0	0	0	
Work planning is weak	14	37	8	25	4	21	5	33	4	21	5	42	1	14	4	21	1	7	6	33	0	0	0	0	
Lack of transportation	32	84	26	81	16	84	12	80	19	100	11	92	5	71	15	79	12	86	13	72	25	100	8	100	

1) Total number of respondents

SUMMARY OF INSTITUTIONAL CONSTRAINTS

Constraint	Sub-Total						Grand total	
	Maji (78) ¹		Afa (95) ¹		CD (53) ¹		(226) ¹	
	Resp.	%	Resp.	%	Resp.	%	Resp.	%
Difficult to identify who is in charge	0	0	6	6	6	11	12	5
Difficult to get decisions from superior	9	12	9	9	11	21	29	13
Flow of documents is slow or documents are not passed on at all	25	32	65	68	18	34	108	48
Funds are not available when required	38	49	79	83	36	68	153	68
Too many different work tasks in my work unit	16	21	8	8	1	2	25	11
My workload is too heavy	6	8	9	9	0	0	15	7
Too few employees in my work unit	19	24	17	18	7	13	43	19
No clear or adequate job description	12	15	14	15	7	13	33	15
Work planning is weak	26	33	16	17	10	19	52	23
Lack of transportation	62	79	85	89	47	89	194	86

1) Total number of respondents

Additional constraints listed by respondents

MAJI

1. Lack of equipment for surveying, electrical work
2. Weak management of available transport
3. Problem with maintenance and spare part availability
4. Lack of job satisfaction

MAENDELEO

1. Lack of coordination between districts and lower administrative levels
2. Would be useful to visit similar programs implemented by other donors
3. No follow-up on problems identified by user groups
4. Lack of stationaries
5. Lack of office space (frequently repeated)
6. Lack of field equipment (frequently repeated)

AFYA

1. Lack of working tools (frequently repeated)
2. Working area too large

APPENDIX XII

Overall Training Programme

HEALTH AND SANITATION TRAINING

Subject matter	Target group	Number of trainees	Duration in days	Number of courses	Trainee days
Supervision and management training	RHO and DHOs	12	10	1	120
Community awareness and mobilization skills	RHO and DHOs	12	5	1	60
Communication skills for public health education	RHO and DHOs	12	5	1	60
Baseline data collection	RHO and DHOs	12	2	1	24
Monitoring and evaluation	RHO and DHOs	12	2	1	24
Effective meetings	RHO and DHOs	12	2	1	24
Community awareness and mobilization skills	HO	20	5	4	100
Communication skills for public health education	HO	20	5	4	100
Baseline data collection	HO	20	2	4	40
Water treatment techniques	HO	20	5	4	100
Techniques for sampling and testing water	HO	20	3	4	60
Environmental sanitation	HO	20	5	4	100
Monitoring and evaluation	HO	20	2	4	40
Community awareness and mobilization skills	HA	87	5	4	435
Communication skills for public health education	HA	87	3	4	261
Baseline data collection	HA	87	5	4	435
Techniques for sampling and testing water	HA	87	3	4	261
Monitoring and evaluation	HA	87	2	4	174
Community awareness and mobilization skills	VHW	340	10	25	3400
Communication skills for public health education	VHW	340	10	25	3400
Baseline data collection	VHW	340	5	25	1700
Monitoring and evaluation	VHW	340	5	25	1700
Total no. of trainee days:					12618

COMMUNITY DEVELOPMENT TRAINING

Subject matter	Target group	Number of trainees	Duration in days	Number of courses	Trainee days
Supervision and management training	RCDO and DCDO	12	10	1	120
Community awareness and mobilization skills	RCDO and DCDO	12	5	1	60
Communication skills for community mobilization	RCDO and DCDO	12	5	1	60
Baseline data collection	RCDO and DCDO	12	2	1	24
Monitoring and evaluation	RCDO and DCDO	12	2	1	24
Effective meetings	RCDO and DCDO	12	2	1	24
Community awareness and mobilization skills	CDO	48	5	4	240
Communication skills for community mobilization	CDO	48	5	4	240
Baseline data collection	CDO	48	2	4	96
Monitoring and evaluation	CDO	48	2	4	96
User group level administration and financial management	CDO	48	3	4	144
Community awareness and mobilization skills	CDA	30	5	4	150
Communication skills for community mobilization	CDA	30	5	4	150
Baseline data collection	CDA	30	2	4	60
Monitoring and evaluation	CDA	30	2	4	60
User group level administration and financial management	CDA	30	3	4	90
Community awareness and mobilization skills	Village animators	340	10	25	3400
Communication skills for community mobilization	Village animators	340	10	25	3400
Baseline data collection	Village animators	340	5	25	1700
Monitoring and evaluation	Village animators	340	5	25	1700
Total no. of trainee days:					11838

IMPROVED WATER SUPPLY TRAINING

Subject matter	Target group	Number of trainees	Duration in days	Number of courses	Trainee days
Supervision and management training	RWE and DWE	13	10	1	130
Communication skills for community participation	RWE and DWE	13	5	1	65
Baseline data collection	RWE and DWE	13	2	1	26
Monitoring and evaluation	RWE and DWE	13	2	1	26
Effective meetings	RWE and DWE	13	2	1	26
Surveying	WE/region	5	10	1	50
Communication skills for community participation	WE/region	5	5	1	25
Design	WE/region	5	10	1	50
Communication skills for community participation	WE/region	5	5	1	25
Construction	WE/region		10	1	0
Communication skills for community participation	WE/region		5	1	0
Surveying of SW	District surveyor	8	10	1	80
Communication skills for community participation	District surveyor	8	5	1	40
Design of SW	Technician	12	10	1	120
Communication skills for community participation	Technician	12	5	1	60
Construction of SW	Technician	20	10	1	200
Communication skills for community participation	Technician	20	5	1	100
Construction of P/S	Technician	20	10	1	200
Communication skills for community participation	Technician	20	5	1	100
Water sampling and testing	Technician	20	3	1	60
Communication skills for community participation	FA	23	5	2	115
Baseline data collection	FA	23	2	2	46
Monitoring and evaluation	FA	23	2	2	46
Construction of SW	FA	23	5	2	115
Repairing engines and pumps	FA	23	5	2	115
Identification and assessment of funds and small contractors	FA	23	2	2	46
Supervision of construction and quality control	FA	23	3	2	69
Implementation planning	FA	23	2	2	46
Operation and maintenance	FA	23	5	2	115
Total no. of trainee days:					2096

TRAINING FOR PLANNING STAFF

Subject matter	Target group	Number of trainees	Duration in days	Number of courses	Trainee days
Planning techniques incl. transport planning	Planners/reg	6	10	1	60
Planning techniques incl. transport planning	Planners/dist	10	10	1	100
Total no. of trainee days:					160

TRAINING TO OVERCOME INSTITUTIONAL CONSTRAINTS

Subject matter	Target group	Number of trainees	Duration in days	Number of courses	Trainee days
Management	DED	4	15	1	60
Information sharing and communication	Heads of Dept.	20	5	1	100
Work planning	Heads of Dept.	20	5	1	100
Staff performance appraisal	Heads of Dept.	20	5	1	100
Motivation	Heads of Dept.	20	5	1	100
Delegation	Heads of Dept.	20	5	1	100
Productive meetings	Heads of Dept.	20	5	1	100
Specialized management training, 3 parts	Heads of Dept.	20	25	1	500
Computer training	Selected staff	12	25	1	300
Human resources development	HID counterparts	5	50	1	250
Total no. of trainee days:					1650

APPENDIX XIII

1993 Training Plan

TRAINING PLAN SEPTEMBER - DECEMBER 1993

CONSULTANT

Activity	Duration in days	Timing	Participants	No. of participants	Facilitators	Venue	Cost in NLG
1. Team building workshop incl. program planning	5	October	Regional and district heads of department	20	Consultants	ICE	3,200
2. Team building workshop in each district	2	October	Departmental staff	280	District heads of departments	Districts	8,960
3. Program orientation seminar	1	October	Regional Development Committee	92	Consultants	Municipality hall	2,944
4. Program implementation seminar	1	October	District councillors	255	DEDs	Districts	6,120
5. Community awareness and mobilization training	5	November	CDOs and selected CDAs	50	RCDO and Consultants	ICE	8,000
6. Training of trainers	10	December	Regional and selected district heads of department and their assistants	10	Consultants	ICE	4,000
7. Training on planning	5	December	<ul style="list-style-type: none"> - District planning officers and their assistants - Regional planners within water, community development and health departments 	16	<ul style="list-style-type: none"> - RPLO - External expert - Consultants 	Institute of rural planning Dodoma	11,200
Total:							44,424

TRAINING PLAN SEPTEMBER - DECEMBER 1993

REGION

Activity	Duration in days	Timing	Participants	No. of participants	Facilitators	Venue	Cost in NLG
REGION							
1. Topographical survey	10	Oct/Nov	Surveyers	15	RWE	Kilosa	3,555
2. Program management	5	November	Community development officers	3	Regional community development officer	Morogoro	504
3. User group concept	5	Nov/Dec	Health officers	16	Regional health officer	Morogoro	2,110
						Total:	3,555

TRAINING PLAN 1994

CONSULTANT

Topic	Duration in days	Participants	No. of participants	Facilitators	Venue level	Cost in NLG
- Community awareness & mobilization skills	5	- Field assistants	12	- HO	District	10,000
- Baseline data collection	3	- CDAs	10	- DWE		
- Communication skills for community participation	4	- HAs	21	- CDO		
- Monitoring and evaluation	2			- PCO		
- Community awareness & mobilization skills	4	- HOs	20	- DHO	Region	18,000
- Communication skills for community participation	4	- CDOs	20	- HO		
- Baseline data collection	8			- RCDO		
- Monitoring and evaluation	2			- HID		
- Community awareness & mobilization skills	10	- Village animators	85	- CDOs	Division	17,000
- Communication skills for community participation	10			- CDAs		
- Baseline data collection	5					
- Monitoring and evaluation	5					
- Community awareness & mobilization skills	3	- Kitongoji chairperson	160	- CDOs	Division	8000
- Communication skills for community participation	2			- CDAs		
- Community awareness & mobilization skills	10	Village Health Workers	85	- HOs	Division	17,000
- Communication skills for public health education	10			- HAs		
- Baseline data collection	5					
- Monitoring and evaluation	5					
- Techniques for sampling & testing water	4	- Health Officer	20	- DHO	District	6,500
- Water treatment techniques	4	- Water Technicians	20	- DWE		
				- HO	District	1,800
- Monitoring and evaluation	4	- Water Technicians	20	- Technician		
				- DWE		
				- Technician		
Sub-total:						78300

TRAINING PLAN 1994
CONSULTANT
 Cont'd

Topic	Duration in days	Participants	No. of participants	Facilitators	Venue level	Cost in NLG
- Techniques for water sampling & testing	4	- Health Assistants	20	- DHO	District	8,000
- Water treatment techniques	4	- Field Assistants	20	- DWE		
- Monitoring and evaluation	4			- HO - Technician		
- User group administration and financial management	4	CDOs	20	- DCDO - RCDO	District	2,000
- Human resources development	5	HID counterparts	5	- RHO	Region	5500
- Community awareness & mobilization skills	4			- RCDO		
- Communication skills for community participation	4			- RWE		
- Baseline data collection	8			- Consultant		
- Training of trainers	10					
- Monitoring and evaluation	2					
- User group administration and financial management	3	CDAs	20	- DCDO - CDO	District	1,500
- Training of trainers	10	- HAs (Moro)	17	Master trainers	District	25,000
		- CDAs (Moro)	12			
		- FAs (Moro)	10			
		- HOs (Kilosa)	3			
		- HAs (Kilosa)	20			
		- FAs (Kilosa)	5			
		- CDOs (Kilombero)	15			
		- CDAs (Kilombero)	2			
		- HOs (Kilombero)	3			
		- FAs (Kilombero)	4			
		- CDOs (Ulanga)	2			
		- CDAs (Ulanga)	2			
		- FAs (Ulanga)	4			
Sub-total:						42000

TRAINING PLAN 1994
CONSULTANT
 Cont'd

Topic	Duration in days	Participants	No. of participants	Facilitators	Venue level	Cost in NLG
- Surveying wells	10	Surveyers	20	- RWE	Region	5,500
- Communication skills for CP	5			- DWE		
- Design wells	10	Technicians	20	- RWE	Region	9000
- Construction of wells	10			- DWE		
- Communication skills for CP	5					
- Surveying P/S	10	Technicians	20	- RWE	Region	5,500
- Communication skills for CP	5			- DWE		
- Design of P/S	10	Regional designers	10	External	External	40,000
- Communication skills for CP	5					
- Construction of P/S	10	Technicians	15	External	External	60,000
- Communication skills for CP	5					
- Communication skills for CP	5	Field Assistants	20	- DWE	District	9,000
- Construction wells	5			- Technician		
- Repairing engines & pumps	5			- CDO		
- Supervision of construction	3			- HID		
- Supervision of operation maintenance	5					
- Monitoring and evaluation	2					
- Supervision and management	10	Regional and district heads of departments and their assistants	16	External	External	55000
Overseas training	10	RDD, DEDs and selected staff				45700
Sub-total:						229,700

Grand total:

350,000