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MINISTRY OF WATER, ENERGY AND MINERALS

Strengthening the Ministry of Water Energy and Minerals  
towards achieving Water and Sanitation Sector Objectives

Project URT/89/003

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REPORT ON FAMILIARISATION/ADVISORY TOUR  
TO MBEYA, IRINGA AND MOROGORO REGIONS

SECTOR ADVISORY TEAM (SAT)

15th to 25th September 1991

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Dar es Salaam  
October 1991

R824-10046

## TABLE OF CONTENTS

	<u>page</u>
ACKNOWLEDGEMENTS . . . . .	(iii)
LIST OF ABBREVIATIONS . . . . .	(v)
PHOTOGRAPHS . . . . .	(viii)
EXECUTIVE SUMMARY . . . . .	(ix)
1. INTRODUCTION . . . . .	1
2. FIELD OBSERVATIONS . . . . .	3
2.1 Mbeya Region . . . . .	3
2.2 Iringa Region . . . . .	4
2.3 Morogoro Region . . . . .	9
3. INSTITUTIONAL AND HUMAN RESOURCES DEVELOPMENT . . . . .	15
4. FINANCE . . . . .	19
5. PLANNING . . . . .	23
6. PROJECT PREPARATION . . . . .	35
7. OPERATION AND MAINTENANCE . . . . .	39
8. INFORMATION, MONITORING, REPORTING . . . . .	43
9. EVALUATION OF THE SECOND FAMILIARISATION/ADVISORY TOUR . . . . .	45

### ANNEXES

1. Objectives of the Tour
2. List of Participants
3. List of Persons Met
4. Itinerary

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## ACKNOWLEDGEMENTS

It would not be possible to mention and thank here the large number of individuals who assisted us in many ways to make our second regional tour as interesting and successful as the first. To all of these our thanks.

We would particularly like to record our appreciation to Mr. Matiku, Regional Development Director Iringa Region, Mr. Mashuda Ag. Regional Development Director Mbeya Region, Mr. Makiluma Ag. Regional Development Director Morogoro Region, Mr. Tarimo Municipal Director Iringa, Mr. Midelo Municipal Director Morogoro, Mr. Kalua Ag. Municipal Director Mbeya, and Mr. Mwakalinga Ag. District Executive Director Mbeya Rural District, for sparing their valuable time to allow us to discuss with them on water supply and sanitation in their areas, and for their generous hospitality.

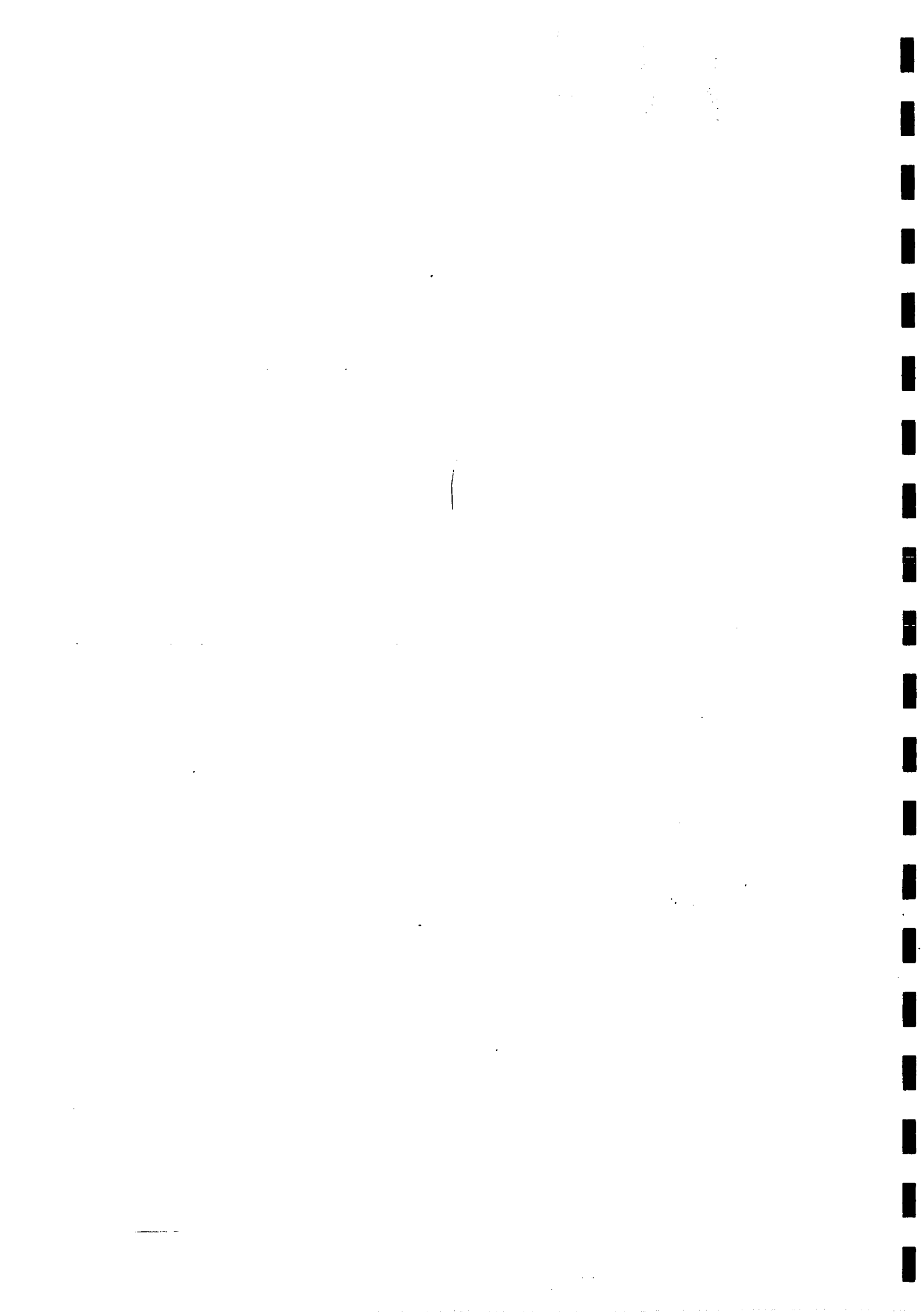
The Sector Advisory Team is also grateful to Ms. Eglesen and Messrs. Jensen, Roger and Madsen of DANIDA and Messrs. van der Laak and Hans of DHV/DGIS for sharing their views on ESA assistance to water supply and sanitation activities in the regions visited.

Lastly and in special measure our thanks go to our hosts, the respective Regional Water Engineers of Mbeya, Iringa and Morogoro Regions together with their staff, without whose kind support and guidance our tour would not have been possible.

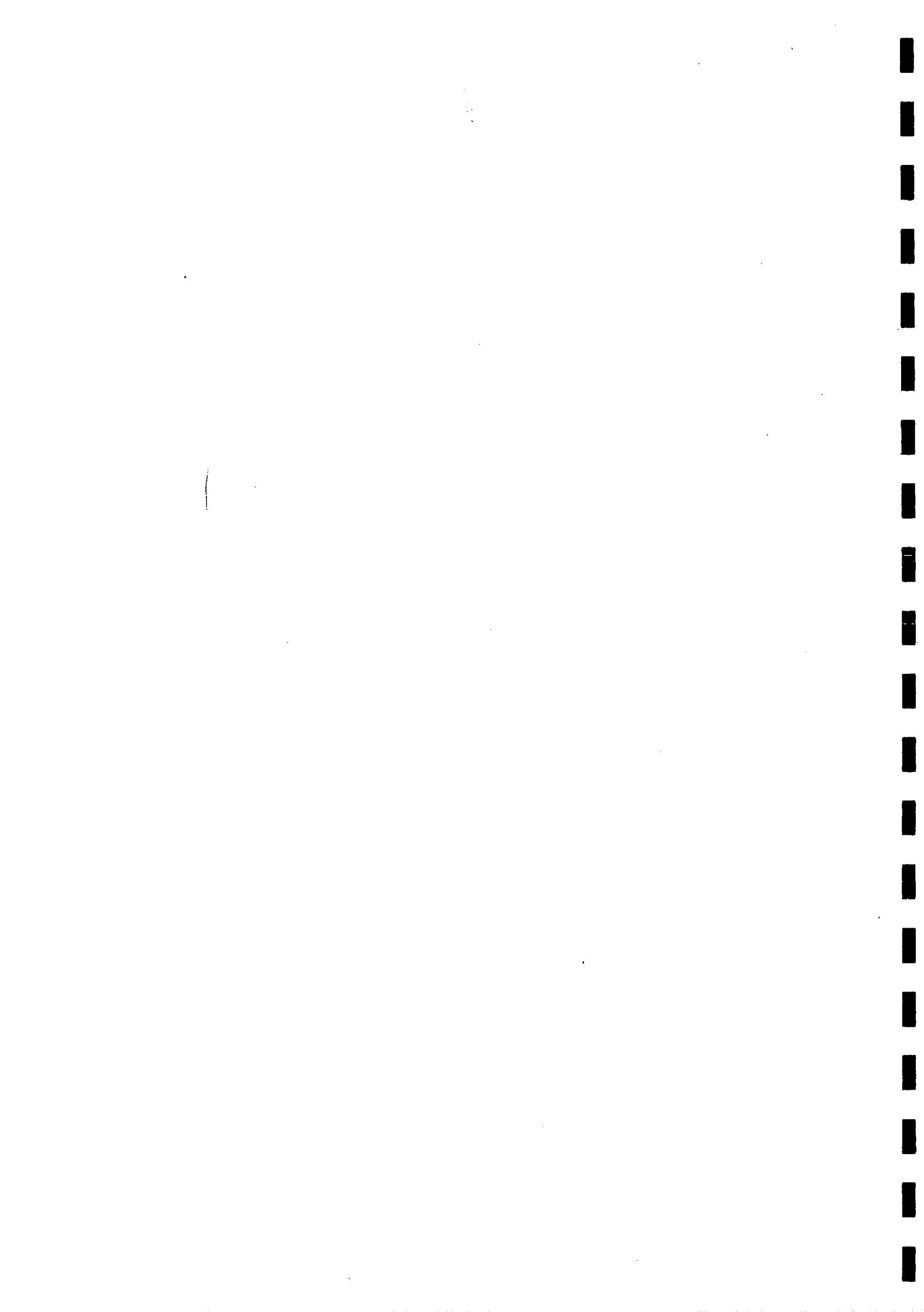
The Sector Advisory Team  
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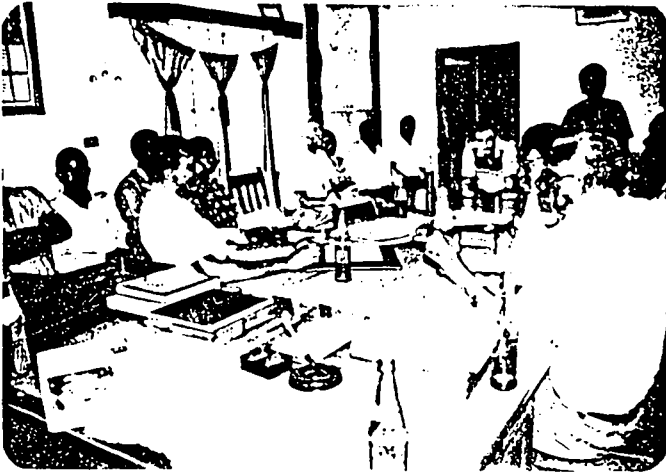
## LIST OF ABBREVIATIONS

Ag	Acting
AWEC	Annual Water Engineers' Conference
DANIDA	Danish International Development Agency
DAP	Division of Administration and Personnel
DCDO	District Community Development Officer
DDCM	Division of Design, Construction and Materials Testing
DED	District Executive Director
DGIS	Directorate General for International Co-Operation (Netherlands)
DMO	District Medical Officer
DPO	District Planning Officer
DSD	Division of Sewerage and Drainage
DOMWL	Division of Operation, Maintenance and Water Laboratories
DWB	Division of Wood Bamboo
DWE	District Water Engineer
DWR	Division of Water Research
ESA	External Support Agency
FMI	Financial and Management Information (component)
HRD	Human Resources Development
IP	Investment Planning (component)
MD	Municipal Director
MoCDWC	Ministry of Community Development, Women and Children
MoH	Ministry of Health
MRALG	Ministry of Regional Administration and Local Government
MWEM	Ministry of Water, Energy and Minerals
NPC	National Project Co-Ordinator
NUWA	National Urban Water Authority
OHRD	Organisation and Human Resources Development (component)
O & M	Operation and Maintenance
PP	Project Preparation (component)
PU	Planning Unit
RAO	Regional Administration Officer
RCDO	Regional Community Development Officer
RDC	Regional Development Committee
RDD	Regional Development Director
RHO	Regional Health Officer
RLGO	Regional Local Government Officer
RMO	Regional Medical Officer
RPCO	Regional Planning and Co-Ordination Officer
RPO	Regional Planning Officer
RWE	Regional Water Engineer
RWMP	Regional Water Master Plan
SAT	Sector Advisory Team
URWG	Inter-Ministerial Working Group on Urban Water Supply and Environmental Sanitation Planning
VWC	Village Water Committee
VWF	Village Water Fund
VWS	Village water supplies

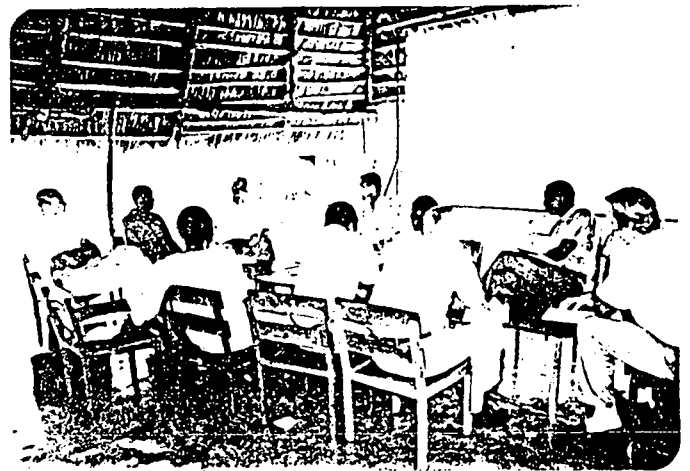


It is important to note that the issues highlighted in the report have been identified on the basis of short visits to only three regions and on discussions necessarily limited in scope, depth and timing. The points are therefore tentative and presented for wider discussion and further investigation. Nonetheless it is hoped the report will be found useful, and serve as a vehicle for further development of ideas, communication and follow up.





Discussing current issues with key Regional resource persons



Discussions with representatives of an External Support Agency during visits to a field project



Consultation with village representatives on local water and sanitation issues



Agreeing and summarising team findings at the end of the day



Team member presenting the summary of findings to the Regional Water Engineer

## SAT IN ACTION IN THE REGIONS



## **EXECUTIVE SUMMARY**

### Introduction

The second Sector Advisory Team tour to Mbeya, Iringa and Morogoro regions took place from 15-25th September 1991. Eleven SAT members participated. As in the first tour <sup>1</sup>, the general objectives of this tour included: (i) two-way familiarisation and establishment of communication linkages with the regions and (ii) verification of activities formulated in the Project Document and Workplan.

Specific objectives for this tour included: identification of issues of relevance to several or all regions, appraisal of issues unique to the regions visited; identification of activities for immediate follow up; gathering information needed for specific project activities; and further refining the role of the project and SAT.

A key feature of the methodology was the balance between meetings by the team as a whole with key resource persons, bilateral discussions on specific subject areas, field visits, and the joint development of findings and observations at the end of each day. Plans for detailed reporting were developed during the tour and a self-evaluation of the tour was carried out on the last day.

### Principal findings

From the discussions with various regional and district officers, villagers in sample villages, and from field visits in two of the regions, a number of findings and observations were progressively developed. These were discussed with the Regional Water Engineers for clarification and confirmation before leaving each Region.

Many of the findings confirmed findings from the first regional visit, but a number of new general and also regional-specific insights were also gained.

Findings related to organisation and human resources development included: lack of manpower inventory and training plans in the regions; poor institutionalisation of community participation in the RWEs' offices; and absence of schemes of service for technical and professional personnel in local government.

Findings focussing on finance and management information included: poor financial planning; poor revenue collection and billing systems; inadequate mobilisation of beneficiaries to contribute towards water and sanitation services; and demotivating tariff structures.

Regarding investment planning, findings included: problems concerning the narrow scope of planning; lack of precise planning guidelines for long and short term planning; poor planning basis; poor co-ordination, liaison and integration in planning; inadequate sources of funding to finance plans; the need for promotion of the Water Policy; and the need to build on the water master plans.

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<sup>1</sup> SAT Familiarisation Tour to Tanga, Kilimanjaro and Arusha Regions, April/May 1991

Findings linked with project preparation included: weakness at District and village level for project implementation; haphazard and unplanned project preparation practices for the regions; lack of a multi-sectoral and long term approach to project preparation; confusing financial arrangements; poor and unsystematic project appraisals; lack of emphasis on implementation of sanitation; non-affordability of VIP latrines by low-income groups; inadequate water quality surveillance; and the problem of women's inability to fully participate due to such factors as male dominance.

Regarding operation and maintenance, findings covered: lack of emphasis to and poor planning of O and M; the need to promote spare parts supply to the villages; and a lack of operation and maintenance guidelines.

Concerning monitoring, information and reporting, findings included the problems of poor information flow and linkages; inadequate, non-systematic feedback mechanisms; and poor co-ordination of sector activities.

#### Conclusions and follow-up

Based on the findings and observations, outline conclusions have been drawn and follow up actions proposed. These include:

- Increased efforts are needed to prepare and train for the uptake of community responsibility, particularly womens' participation. These should include building on the PROWESS initiative, developing a community participation unit in each Regional Water Office, formulating Village Participation Programmes at regional level, and strengthening the supporting capacity of the DWE and DCDO.
- Improved co-ordination should be sought by better utilising PHC Committees at Regional level, and analysing the possibility of unifying municipal water and sanitation services under Municipal Councils.
- Training would be enhanced through the development of Regional Training Plans, including training of village water committees and the village governments on their water and sanitation roles.
- Billing and revenue collection could be improved through development of a task-force to promote revenue collection within the regions, promoting information exchange on problems and successes in revenue collection, and carrying out a comparative study of different approaches.
- The development of Village Water Funds should be promoted by setting realistic targets for fund targets, developing possibilities to fund investment as well as recurrent costs, setting up funds at a very early stage in project development, and sharing experiences with Water Funds on aspects such as motivation of collectors.
- Uniform approaches regarding spare parts procurement need to be formulated. Purchasing practices should also be improved through exploration between MWEM/DOMWL, Central Stores and the Regions.
- Management teams at Regional and District Level should take a more active role in preparing programmes, involving public institutions, private companies and NGO's when necessary.

- Neighbouring districts and regions should plan for joint activities/projects and resources sharing to maximise utilisation.
- RWEs' planning efforts should incorporate rural and urban water supply and sanitation as one package, both falling squarely under the responsibility of the RWE. ESA-assisted projects should be fully integrated into the RWEs' programmes.
- Central and Local Government, RWE's and DWE's should get involved in planning for the entire region, including Districts not supported by ESAs, in order to realise the target of "water for all by the year 2002".
- Through the Regional Water Engineer, the Ministry of Water, Energy and Minerals should take a leading role in coordinating water and sanitation planning at district and regional level.
- The importance of marrying development plans with the objectives and targets embodied in the national long-term, strategic programmes needs reinforcing. A national seminar to educate sectoral planners on the importance of the Programme Approach when planning for social and economic development is called for.
- All towns should have plans that are in harmony with social and economic development. The plans for the water and sanitation sector should consider all the inputs required (investment and recurrent funds, manpower etc). Increased ESA support to urban areas should be vigorously encouraged.
- Whilst continuing research should be centralised, planning, design and implementation of wood/bamboo developments and O&M of existing projects should form part and parcel of the RWE's/ DWE's responsibilities.
- The development of local entrepreneurial capacity needs to be planned if attempts at partially privatising some urban sanitary services are to succeed.
- Guidelines need to be developed to assist the assessment and ranking of proposals/projects selected for further investigation or implementation. Planning should reflect budgetary realities and offer low cost "community self-improvement" options for those communities unable to be served in the foreseeable future.
- To ensure a good planning basis, there is a need to review the practicality, acceptability and effectiveness of methods of cost sharing at village level.
- To guide future planning, a study is required on the cost-benefit of improving the standard of design and construction to achieve decreased long-run costs for operation and maintenance.
- The Environmental Sanitation Guidelines should be harmonised with the Water Policy.
- A training programme for Design Engineers on planning and project preparation should be initiated, and interim guidelines prepared. Specific guidelines regarding operation and maintenance considerations in planning and project preparation are also needed.

- Uniform approaches regarding community participation in planning and project preparation should be formulated and there is a clear need to plan for orientation/training of technical staff in community participation techniques and the principles of the integrated approach. The Water Resources Institute should include the subject of community participation in its curriculum and arrange for in-service training of technical staff already in the field.
- Training of DWES' office staff with regard to monitoring and back-up of village water supply, sanitation services and water sources should be initiated, and interim guidelines and manuals prepared.
- Uniform approaches need to be formulated:
  - for the implementation of the Water Policy;
  - monitoring and evaluation of water supply and sanitation services performance, collection of statistical information and feed-back of design criteria;
  - village-managed O & M of water supply and sanitation services.

## 1 INTRODUCTION

This report is based on the visit of the Sector Advisory Team (SAT) comprising Counterparts, the National Project Co-Ordinator and Advisers, to Mbeya, Iringa and Morogoro regions from 15th to 25th September, 1991.

The general objectives of this tour included: (i) two-way familiarisation and establishment of communication linkages with the regions and (ii) verification of activities formulated in the Project Document and Workplan.

Specific objectives for this tour included: identification of issues of relevance to several or all regions; assessment of issues unique to the regions visited; identification of activities for immediate follow up; gathering information needed for specific project activities; and further refining the role of the project and SAT.

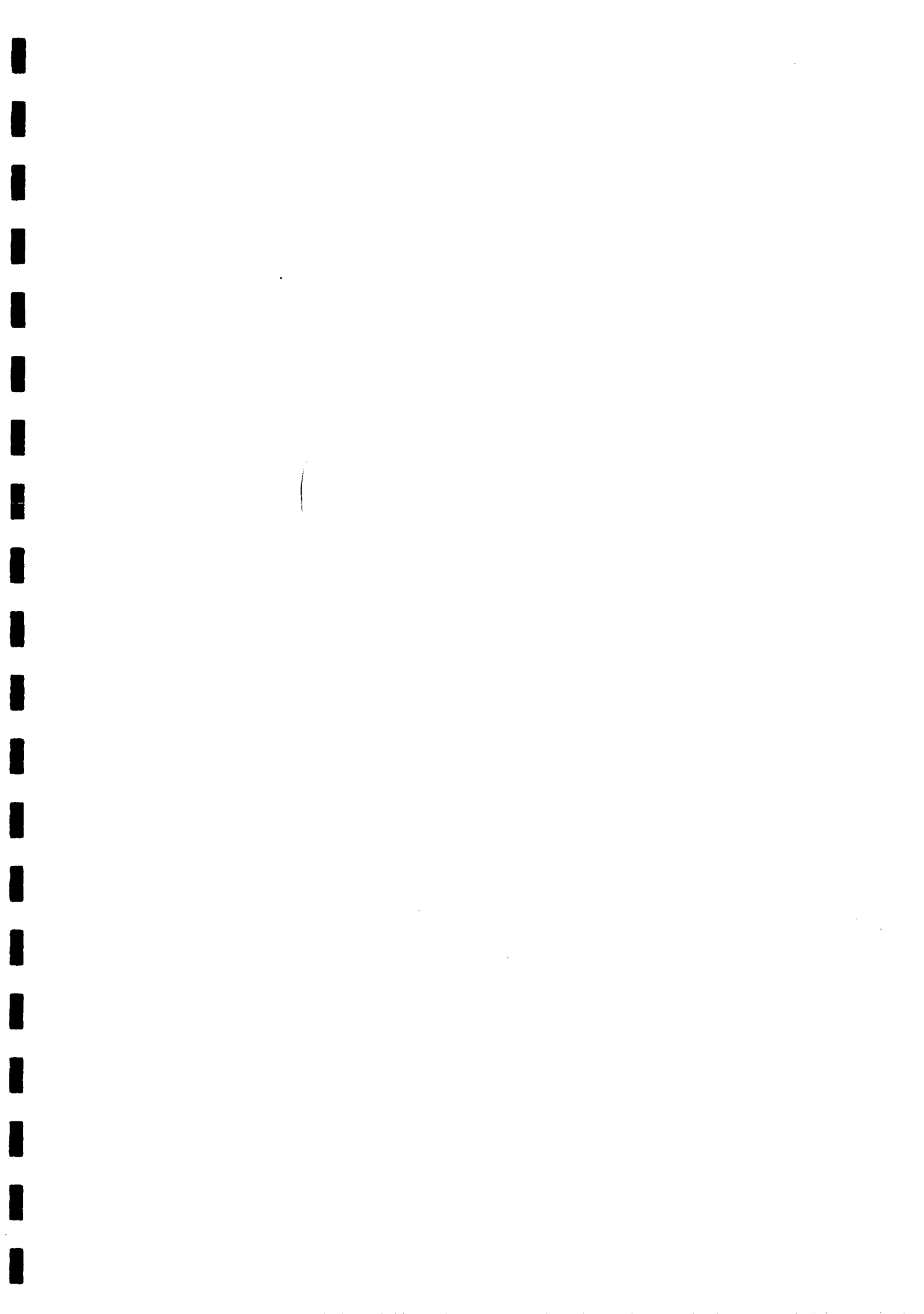
The mission spent a minimum of two full working days in each region, during which discussions were held with senior regional and district officials and, in all three regions, with representatives of external support agencies involved in the sector. The team also had the opportunity of making field visits to a typical rural water supply schemes in Iringa and Morogoro regions, to peri-urban areas in Mbeya and Iringa, and to municipal installations in Iringa.

The team called on the officers by appointments made through the good offices of the respective Regional Water Engineers. Following individual introductions by members of the team a short brief on the purpose of the visit was given including preliminary questions regarding the sector organisational set-up, operation and maintenance, planning processes, integration and co-ordination with other sectors, monitoring, management information systems, cost recovery and the existing ministerial, regional and district linkages. This triggered cordial two-way discussions which enabled every member of the team to make an active contribution.

At the end of each day discussions were summarised in the form of outline findings. Before departure from the region these outline findings were discussed and agreed with the Regional Water Engineer. The findings formed the basis on which this report has been written.

The report has eight main chapters covering the four components of the project: Organisation and Human Resources Development, Investment Planning, Project Preparation and Financial and Management Information. Each chapter presents new general and specific findings, re-confirmed findings from the previous tour, recommendations and proposed follow-up.

Lastly the team carried out a self-evaluation of the tour with the objective of making use of the experiences gained to better assist in planning future regional visits.



## 2 FIELD OBSERVATIONS

### 2.1 MBEYA REGION

1. At Community and District level, the Danida-assisted programme in six Districts may offer a good model for community-based management and a partnership approach to sustainability. However, integration at RWE level and the possibilities of transferring the approach to existing schemes are still to be demonstrated;
2. Wood Bamboo activities appear to be carried out in isolation and there is poor communication and information exchange with the RWE's office. So far the experience, particularly with O & M and community acceptance, seems mixed;
3. It is observed that there is an imbalance between urban and rural sectoral development since the Danida funded project does not cover the urban areas, with particular reference to O & M logistics support;
4. An effort has been made to establish a regional sector library. However there is a need for better guidance and formats from MWEM headquarters on data and information required at national level and it's subsequent use, and in turn, better feedback of innovative experiences from the region and vice versa;
5. It has been observed that technical and professional staff are not well equipped with software knowledge to enable them to adequately complement the community development workers' efforts to implement the water supply and sanitation programme under the participatory approach;
6. There need to be improvements in revenue collection in the urban areas. In the rural areas, Water Funds are operational in six districts but monitoring and support need to be improved;
7. Implementation of sanitation in both urban and rural areas, including health and hygienic education is lagging behind. However, on rural sanitation, the Danida-supported programme is making efforts to provide demonstration VIPs at Dispensaries and Primary Schools for subsequent adoption by Villagers;
8. The extended project cycle and funding lag for urban water supply coupled with high urban growth has meant that augmentation of the water supply is constantly chasing the increased demands;
9. It was observed that there is inadequate information exchange and linkage regarding reports being made by various institutions concerned with the water supply and sanitation programme in Mbeya Municipality;
10. Insufficient quantity of waste water reaching the waste stabilisation ponds and/or high evaporation during the dry season and seepage has led to poor performance of the ponds;
11. There is a lack of an HRD programme encompassing training plans, motivation packages and formulation of schemes of service, particularly for professional and technical staff joining the Local Government at district and lower levels;

12. There is a lack of guidance to villagers in preparing outline projects (leading to a number of projects originating at District level) and a need also for guidance on project appraisal and selection criteria at all levels;
13. Despite that overall sectoral development programmes exist as national level, the Regions seem to have not adequately synthesised the same in order to evolve comprehensive regional strategic plans;
14. An assessment is not available on the advantages and disadvantages of the programme planning approach as compared to the project approach which is no longer in use;
15. In Mbeya Rural District, the possibility of diversion of Central Government water funds to other budget lines has been overcome by setting up separate sector bank accounts;
16. It is observed that funds voted for development projects being undertaken in the Regions are received very late, thus drastically affecting smooth implementation of planned activities. An example cited was the Danida-assisted programme, whose 1991/92 first quarter funds were received almost at the end of the quarter;
17. Efforts by Councils in Mbeya Region to share meagre resources have been initiated but not yet finalised;
18. It was observed that the initiative of the Ministry of Health at present is to promote traditional latrines to acceptable standards rather than encouragement of VIP latrines, which are scarcely affordable;
19. A Manpower Inventory and a Training Plan covering the period 1991-1994 has been established for the Danida-assisted water project;
20. It is observed that whenever progress reports are sent to the Ministry, RDD and DED, no feedback has ever been received by RWE from the Ministry/RDD except from the DED, to assist in improving upon the reporting system;
21. Mbeya Regional Water office is planning to computerise the existing manual billing system employing the billing software in MAJI Dar es Salaam without reference to experiences gained elsewhere;
22. Generally the Danida-assisted Project has been successful in establishing Village Water Funds in every Project Village to the extent that O & M costs are full covered by the funds and probably there is a potential to partially cover investment costs; However there are number of problems including in some cases mismanagement of funds and inadequate efforts by some village leadership to collect adequate funds. Also the reporting in the use of funds to villagers and other interested parties is not adequate. In order to overcome these problems Danida is planning to start training programmes for the Village leadership and Treasurers.

## 2.2. IRINGA REGION

### **Regional Development Director:**

23. The choice of technology in the past has attributed to the poor level of water and sanitation service delivery and sustainability;



24. Beneficiaries have accepted the fact that demands on water supply and sanitation services are no longer affordable by the Government and are now willing to contribute towards O & M costs;
25. Iringa is the largest consumer of chemical fertilisers and pesticides but no evaluation on the impact on water sources has been done;
26. Poor revenue collection as well as measures to improve revenue collection in the water and sanitation sector are known at all levels and management hierarchy but no adequate measures have been taken to overcome difficulties;
27. Monitoring on the water and sanitation sector is based on various Regional and District Committee meetings, quarterly and annual reports as well as feedback from the public;
28. An Environmental Protection Programme has been established in the Region and to support this initiative, the Environmental Protection Fund has been set up;
29. Despite the fact that Iringa Municipality has been favoured by natural topographical configuration, the sanitation situation is still poor;

**District Development Director:**

30. The impact of the Ministry of Water, Energy and Minerals is not felt at the District level and the role of District Water Engineer in relation to Local and Central Government is not clearly defined;
31. Funding arrangements for the Water and Sanitation Sector from both Local and Central Government is confusing;
32. The Water Section at the District level is not fully integrated into the office of the District Executive Director;

**Regional Local Government Officer:**

33. Employment of sufficient technicians by the Local Government is restricted by funds;
34. The introduction of VIP latrine technology is not affordable by people of low income;
35. The Ministry of Water, Energy and Minerals should take the initiative to develop and promote alternative sources of energy to reduce increasing demand on wood fuel;
36. Schemes of Service of Local Government technical employees do not exist and the schemes of service of parent Ministries are followed instead;

**Peri urban field visit:**

37. The initiative to develop water for suburban dwellers is welcome; However, the responsibility of O & M has not been transferred to the beneficiaries thus adding more responsibility on the RWE;
38. Siting of wells in suburban areas has not taken into account potential dangers from ground water pollution caused by insanitary conditions e.g. latrines and septic tanks;

39. The pumping station and the treatment works are in poor condition;
40. A pilot roughing filter exists at Iringa Municipality water pumping station for research purposes;

**Regional Water Engineer:**

41. While water and sanitation sector co-ordination exists at regional level there is no institutional arrangement that facilitates such co-ordination at district and lower levels;
42. For Iringa Municipality water supply there has been significant improvement in revenue collection since 1988. However, further progress towards the potential revenue yield is hindered by the gap between water supply and demand and also the lack of collection incentives;
43. Wood-bamboo section is working in isolation despite the fact that it is located in the RWE's yard;
44. The RWE is bound to follow a centrally controlled purchasing system whilst the ESA is free to follow other alternatives;
45. Although good advances have been made in community based management in the DANIDA-assisted project areas, long-term plans for institutional and support aspects of sustainability at all levels are yet to be implemented;
46. Although decisions on the technology to be applied are already based on assumed long-term running costs, these decisions are not yet supported by in-depth studies;
47. The DANIDA-assisted water programme includes the construction of VIP latrines at public institutions intended to demonstrate latrine usage and not village options;
48. There appeared to be no long-term plans to assist those villages not included in the DANIDA-assisted programme, to make improvements to their water supply and sanitation facilities;
49. In the DANIDA-assisted programme, training support tends to be emphasised at village-level;

**Regional Community Development Officer:**

50. The strategy of village mobilisation seems well developed. However, implementation results depend on village leadership, the economic basis in the village to support O & M and on management of water funds;
51. Activities of improvement of sanitation facilities are yet to be fully co-ordinated between RCDO, RWE and RHO;
52. Women in villages are very willing to participate in activities of improvement of water supply and sanitation facilities but at some places they are hampered by, among other factors, male dominance;

**Municipal Director:**

53. Water supply services and sanitation facilities of Iringa Municipality are highly inadequate;
54. The source of water supply of Iringa Municipality is endangered by pollution, more as a result of agricultural activities than by industrial wastes;
55. Solid waste disposal in Iringa Municipality is not well managed;
56. Consolidation of social services, including water supply and sanitation under Iringa Municipality is an option provided the necessary resources are available;

**Regional Health Officer:**

57. Co-ordination of water supply and sanitation development would be improved by an active co-ordination body at national level;
58. A national policy and guidelines on environmental sanitation development have been launched by AFYA. Latrine construction is based on traditional designs and application of local materials. In Iringa Region the districts have started to prepare baseline surveys and plans;
59. The coverage with latrines in rural areas approximates 65% according to the 1989 survey. Full coverage is expected by the year 2000;

**RWE's Office, Accounts and Stores:**

60. Responsibilities of the Accounts Section and the Operations and Maintenance Section are not reflected in practice;
61. The revenue collection in Iringa Municipality is low resulting from insufficient knowledge of the number of customers served;
62. The RWEs' stores, like any other Government institutions, follow Government purchasing procedures, which are time consuming and cumbersome, hence leading to delays in execution of projects, particularly for regions far from Dar as Salaam it seems;

**RWE's Office, HRD:**

63. The construction of a training office cum library is nearing completion at the RWEs' office;
64. A District Training Co-ordinator has been identified in each of the districts in Iringa Region to manage the training function under the guidance and supervision of the Regional Training Manager;
65. The essential accounting duties in the RWEs' office seem to be efficiently carried out despite the shortage of qualified accounting staff;

**Field visit (Nyamahama/Maliuzanga Group Scheme):**

66. The ESA appears to have a high profile at village level, which hampers the development of community initiative and responsibility for long-term responsibility;

67. In principle, the community-based approach seems sound, but communities could be more fully and realistically consulted on their long-term roles and commitments, and those of the DWE and RWE as supporting partners;
68. Revenue collection and accountability in the villages seem to be successful. The planning of VWF's in terms of long-term expenditure and collection however is still weak;
69. There seems to be an awareness within the village leadership regarding environmental sanitation aspects and there is routine inspection on environmental sanitation conditions in the households. Construction of latrines however is hindered by unfavourable soil conditions;
70. In the agreement with the community the DANIDA-assisted project seems to keep to set standards of service levels;
71. The provision of proper drainage to the water delivery points seems to be well incorporated in the design;
72. The village water supply scheme has brought a positive impact on the development in reduction of health hazards, improving social living standards and encouragement of settlement;

**Visit to municipal pumping stations:**

73. The municipal pumping stations are generally in very poor condition and only partly operational;

**RWE's Office, Planning & Design Section:**

74. The RWE has taken the initiative to draw together various External Support Agencies during Maji Week 1991, in order to unify approaches;
75. The participation of the district level in planning, design, construction and maintenance support is hindered by lack of professional capacity in the district;
76. The RWE's office is very much focussed on the DANIDA-assisted programme, and less on the regional needs as a whole;
77. Planning at the regional level is taking place only according to the availability of funds. There is no attempt to develop rolling plans for the region as a whole as a mechanism to attract further funding;
78. In the design of schemes, Ministry prescribed criteria are followed which are not necessarily geared to reducing the burden on community managed O & M;

**RWE's Office, O & M:**

79. Staff in one District (Iringa) are trained by the DANIDA-assisted project with the intention to form village water supply and sanitation monitoring units;
80. The foundations for a sustainable spare parts supply are being developed with the assistance of the DANIDA-assisted project;
81. Because of time constraints no discussions could be held with the Urban O & M and Workshop sub-sections in the RWE's office.

### 2.3 MOROGORO REGION

#### **Field visit to Luhindo village:**

82. The Village has fully accepted responsibility on O & M but is unable to meet total costs because of high cost, out of which electricity cost is paid by the District;
83. The initiative by the Village Government to introduce 20% commission for the collector of the Water Fund has improved collection;
84. The village water attendant is a technician as well as a watchman and is paid TAS 3000 per month out of the Water Fund;
85. The Village Water Fund's balance on its account at NBC is inadequate to meet the costs of anticipated breakdown;
86. The village expressed appreciation for the training offered to the Village Water Committee;
87. Accountability for the Village Water Fund is well reported;

#### **Field visit to Dakawa village:**

88. The Village had accepted full responsibility for O & M in advance of the project handover;
89. Visits by regional and national Heads/ technocrats to the Village is infrequent;
90. Flat terrain, coupled with high ground water table hampers proper drainage around the water points;
91. The pump mechanic gets TAS 200 per pump breakdown repaired while the Water Fund collector gets a fixed amount of TAS 2000 per month;
92. The Village has been successful in imposing a penalty to defaulters;
93. The awareness of the importance of Community Hygiene Education amongst the VWC members seems low;
94. Spares are available in town, but at a cost in terms of time and money. Village traders are reluctant to store slow-moving items. Possibilities of Village-level spares holdings are therefore being explored through the DWE's office;

#### **Regional Local Government Officer:**

95. The planning of revenue collection receives less emphasis than the planning of expenditures;
96. Revenue collection within Local Government is more motivating than within Central Government as revenues can be spent directly;
97. In the handing-over of water supply schemes to villages a set procedure in 14 stages has been adopted in the Netherlands-assisted programme;
98. Committees for coordination between the departments of Water Supply, Health & Community Development rarely meet;

99. The role of MWEM is seen as mainly training of sector staff, coordinating sector ESAs, procurement and technical assistance;

**Regional Development Director:**

100. Revenue collection for water supply in the Municipality, among others, suffers from inadequate records, inadequate follow-up, accumulation of debts, shortage of staff and competence;
101. Maintenance of urban sanitation, infrastructure is poor due to old equipment & lack of competent staff to maintain the equipment;
102. Communication & transport, shortage of technical staff and means are the major regional development constraint;
103. Government procedure of "appropriation-in-aid" leads to reduced revenue collection targets and performance;

**District Executive Director:**

104. Planning in Morogoro Rural District is essentially bottom-up with guidance from those Council Committees and departments which have a role in water supply;
105. Some water projects whose construction started a number of years ago are still incomplete due to shortage of Development Funds;
106. Water and Sanitation Services in the District get about 20% of the recurrent budget;
107. Major problems facing the District were said to be low funding levels and lack of transport;
108. Water and Sanitation Services are managed directly under the District Council with support from the related Technical Ministries. There was a preference for this rather than Central Government Management as practiced by the Ministry of Agriculture and Livestock;
109. A training programme for a number of Village Governments on aspects of Community Participation has been initiated and funded;
110. The collection of Development Levy is affected by, among other things, the agricultural cycle;
111. Out of 215 Villages in the District water projects have been handed over for Community-based O & M in less than five;
112. Sanitation activities are carried out by the Health, Community Development and Water Departments of the Council and include promotion of improved home and village environment as well as latrine construction;
113. Village Water Funds are used to cover the cost of fast moving spare parts and remunerating scheme attendants. All remaining costs are met by the Regional Water Office and the District Council;
114. A separate water and works account is in place and operational;
115. The meagre available resources such as transport are shared among various sectors within the Council;

**RWE's Office, O & M:**

116. Unit maintenance costs are not known and no records are kept of maintenance costs per well;
117. Whilst in the Netherlands-supported programme community mobilisation is jointly carried out by Maendeleo, Afya and Maji, in Regionally-funded Schemes this is carried out by Maji alone, with support from local leadership;
118. In relation to the Netherlands-assisted programme the O & M Section is involved in surveys, construction, maintenance and training of district level staff with respect to shallow wells;
119. With regard to sanitation, construction of latrines in Villages is demonstrated and design research is being carried out in collaboration with STIFL (Swiss Tropical Institute Field Laboratory);

**Regional Health Officer and Regional Medical Officer:**

120. Morogoro Region is highly prone to water born disease epidemics;
121. Besides water and sanitation activities in the Netherlands-assisted programme whereby health officers have been assigned to the programme, there is a general health campaign for the whole region;
122. PHC Committee at regional level is considered an adequate mechanism to oversee water, health education and sanitation activities in the region if it would meet regularly. Co-ordination at implementation level is weak;
123. There is routine inspection of sanitation facilities in Morogoro region. Latrine coverage by 1990 was 50;
124. Municipal sanitation activities are inadequately carried out due to shortage of resources;
125. Coordination between sector activities is insufficient;
126. On health and hygiene education, the practice has been that of rendering information rather than educating the people;
127. The experience gained from the campaign against AIDS could be relevant in the promotion of Water and Sanitation activities;

**RWE's Office, O & HRD:**

128. The established Regional Training Office and Library have not been adequately developed as required in the Regional Water Office, to manage the training function;
129. At present, managing the training function is being undertaken by a Senior Manpower Management Officer as an interim measure;
130. Long/short-term plans to guide the training function including Workers' Education do not exist in the region;
131. A well-adopted organogram exists for the Regional Water Office. However, the Village Participation Cell is not well placed to cater for all villages in the region;

**RWE's Office, Accounts and O & M:**

132. The responsibility of urban water supply revenue collection is shared between the Accounts and the O & M sections;
133. The Ministry of Water, Energy and Minerals has started to computerise the billing in Morogoro Municipality. However, it is not based on intensive survey;
134. There is a big accumulation of debts caused by Industries & Institutions;
135. Revenue collection is accrued mainly from Industries and Institutions;
136. Sanction from the RDD is required before disconnection of water supplies to Industries and Institutions are effected;
137. Reporting of revenue collection is not exhaustive;
138. There is shortage of manpower for water disconnection;
139. There are plans to install meters for Industries and Institutions;

**Regional Community Development Officer:**

140. Information on the activities from the RCD Department was difficult to obtain;

**ESA's representative (DHV):**

141. Although councils are advised regarding target sums for the VWF, no exact data on actual O & M costs are yet to hand. However earlier estimations of 10% of investment costs per annum, seem to be proving high;
142. To date, both environmental sanitation and hygiene education have had a low profile in the Netherlands-assisted programme, reliance being placed on the regular MOH-programme in the project areas. Although, extension staff have good technical knowledge, they lack communication skills;
143. The Netherlands-assisted programme concentrates on the rehabilitation and O & M in selected parts of the region;
144. Much effort seem to have been put on the promotion of the community role in the O & M but less on strengthening the supporting capacity of the Government through the DWE and DCDO;
145. In developing community based approaches to sustainability, changing attitudes of the district level officials has proved to take time;
146. The lack of capability amongst extension staff in participatory planning at village level is one of the training needs of the programme;
147. VWC's compose of five members out of which a minimum of two are women. The role of these women is often reduced by male dominance, calling for general womens' support in the village;



**Municipal Director:**

148. There is very good liaison between the RWE's office and the Municipal Council, informally, through the Works Committee, and in planning;
149. There is sometimes a delay in the response of the emergency unit serving the municipal water supply;
150. The need to unify municipal water and sanitation services under the Municipal Council was expressed, provided there would be a transition period of 3 to 4 years to strengthen municipal capacity and transfer experience;
151. There is a time-consuming procedure in up-dating municipal bye-laws and this hinders the deterrent effect on polluters;
152. The Municipal Council attempts to control further extension of squatter areas by surveying land around existing squatter areas;
153. The response of private entrepreneurs to an invitation by the municipality to manage solid wastes was poor;
154. It was expressed that the municipal authority could have involved itself more fully in the municipal sewerage project;

**RWE's Office, Planning & Design Section:**

155. Although long-term regional and national plans exist, they are little used to integrate and co-ordinate proposals coming up from the village level;
156. Planning, design and O & M in the RWE's Office are carried out by different sections for urban and rural water supply;
157. O & M aspects are not usually taken into account during planning and design stages. Also there is no feed-back to the planning and design section by the O & M section;
158. Action plans cannot be adhered to due to lack of incorporation of inadequate quarterly disbursements of funds and seasonal factors;
159. Gravity schemes have priority for reasons of ease and economy of O & M notwithstanding higher investments. 65% of planned schemes are gravity schemes, and the remainder are other options;
160. The view was expressed that planning and project preparation are too technical for beneficiaries to be involved and their role is limited to choosing DP locations;
161. There is little attention given to the planning of protection and improvement of water sources, other than for Morogoro municipality;
162. It is observed that there is no direct link between the RWE's Office and the Netherlands-assisted programme as far as approaches to planning, design and construction are concerned;
163. The Design Manual for Water Supply Schemes and the Type-Drawings are constantly in use in design, with some local adaptation to the drawings;

164. The individual requirements of those calling forward project proposals leads to the use of different formats, not necessarily in line with those recommended by the Design Manual for Water Supply Schemes.

### 3. INSTITUTIONAL AND HUMAN RESOURCES DEVELOPMENT ASPECTS

#### 3.1 RECONFIRMED EARLIER FINDINGS

##### Co-ordination:

- There is no smooth institutional co-ordination at all levels;
- The Sewerage and Drainage Division and the Wood/Bamboo Section are not well institutionalised at Regional and lower levels;

##### Community Participation:

- Long term plans for institutional and support aspects of sustainability at all levels are yet to be implemented;
- Womens' involvement in the water and sanitation sector is hampered by, among other factors, male dominance;
- Community Participation is not institutionalised at the RWE's office.

##### Training:

- Long/short term Plans to guide the training function do not exist;
- A Manpower Inventory and a Training Plan is not established in all the regions excepting for the DANIDA-assisted water project;
- Schemes of Service of local government technical and professional personnel do not exist but follow schemes of service of parent ministries;
- A training programme for a number of village governments on aspects of Community Participation has been initiated and funded by the DANIDA assisted water programme.

#### 3.2 NEW FINDINGS

##### Community Participation:

- Much effort seems to have been put on the promotion of the community role in O & M but less on strengthening the supporting capability of the Government through the DWE and DCDD at district level;
- In developing community based approaches to sustainability changing attitudes of the district level officials have proved to take time;
- VWC's compose of 5 members of which a minimum of 2 are women. The role of these women is often reduced by male dominance, calling for general women's support in the village;
- It has been observed that the technical and professional staff are not well equipped with software knowledge to enable them to adequately complement the community development workers' efforts to implement the water supply and sanitation programme under the participatory approach.

##### Institutional arrangements:

- Co-ordination between sectors activities is insufficient;

- The PHC Committee at regional level is considered an adequate mechanism to oversee water, health education and sanitation activities if it would meet regularly;
- The role of MWEM is seen as mainly training of sector staff, co-ordinating sector ESA's procurement and technical assistance.

### 3.3 SPECIFIC FINDINGS

#### Mbeya Region:

- An effort has been made to establish a regional sector library. However, there is a need for better guidance and formats from MWEM headquarters on data and information required at national level and its subsequent use, and in turn, better feedback of innovative experiences from the region and vice versa;

#### Iringa Region:

- The construction of a training office cum library is nearing completion at the RWE's office;
- A Training plan (1991-1994), developed through the assistance of the ESA, is being implemented in Iringa, Mbeya and Ruvuma Regions;
- The water sections at the district level are not fully integrated in the office of District Executive Director (DED).

#### Morogoro Region:

- A well-adopted organogram exists for the Regional Water Office. However, the Village Participation Cell is not well placed to cater for all villages in the region;
- The establishment of the Regional Training Office and Library have not been adequately developed in the Regional Water Office as required in order to efficiently manage the training function;
- At present, managing the training function is being undertaken by a Senior Manpower Management Officer as an interim measure;
- There is a shortage of manpower for water disconnection in Morogoro Municipality;

### 3.4 RECOMMENDATIONS

#### Community Participation;

- Womens' involvement in Water and Sanitation Projects should be encouraged through PROWESS, other forms of seminars and meetings.  
**Action:** by National PROWESS co-ordinator by June 1992
- A community participation cell should be established in each Regional Water Office.  
**Action:** By DOMWL and RWEs by March 1992
- Village Participation Programmes should be formulated at regional level and monitored by the Community Participation cell.  
**Action:** by RWEs by June 1992

- The role of the community in O & M should be strengthened by improving the supporting capacity of the DWE and DCDO;  
**Action:** by MWEM through RWEs by 1993
- Principles of Community Development should be introduced in technical and professional training institutions;  
**Action:** by National Training Officers in liaison with MAENDELEO

Co-ordination:

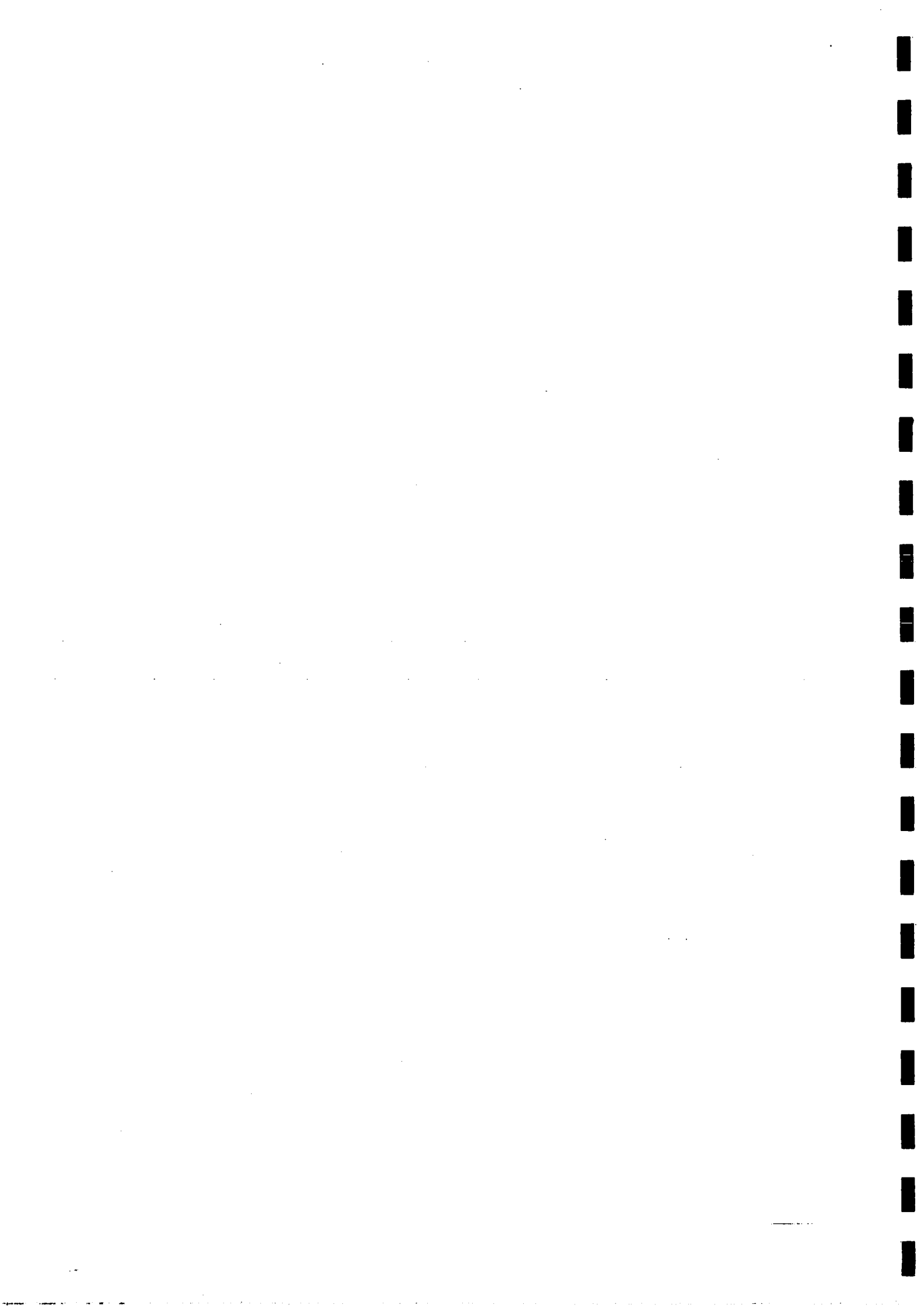
- The PHC Committee at regional level should meet regularly to strengthen the linkage between water, health and sanitation services;  
**Action:** by RWEs by March 1992
- An in-depth analysis should be conducted on the possibility of unifying municipal water and sanitation services under Municipal Councils and recommendations submitted to the Government;  
**Action:** by a joint committee comprising DOMWL and DSD to be appointed by February 1992

Training:

- Each Regional Water Office should develop its own training plan excluding long-term training plans but including training of village water committees and the village governments in their roles in water and sanitation projects.  
**Action:** by Regional Training Co-ordinators by February 1992

3.5 FOLLOW-UP ON THE FIRST TOUR

- A Regional Training Co-ordinators' Workshop was held in Tanga from 3-13 June, 1991. Each region was represented by one training co-ordinator;
- The application of the PROWESS Participatory Methodology in Iringa (3-13 June 1991) emphasised the importance of team building;
- Regional offices have been established for matters relating to drainage and sewerage;
- Implementation of the Training Plan for the DANIDA-assisted water programme has started.



#### 4. FINANCE

##### 4.1 PREVIOUS GENERAL FINDINGS RECONFIRMED THIS TOUR

###### Billing and Revenue Collection

Poor revenue collection as well as measures to improve revenue collection in the Water and Sanitation Sector are known at all levels in the management hierarchy but no adequate measures have been taken to overcome difficulties such as inaccurate records, inadequate follow-up, accumulation of debts, shortage of staff and competence.

The Ministry of Water, Energy and Minerals has started to computerise the billing in many Regions. However, it is not based on intensive survey of costs and benefits.

Beneficiaries have accepted the fact that demands on water supply and sanitation services are no longer affordable by the Government and are now willing to contribute towards costs.

Revenue collection within Local Government is more motivating than within Central Government as revenues can be spent directly.

The same tariff structure, based on 4 categories of customers, (commercial, industrial, institutional and domestic), is followed in every region.

In regions with big industrial and institutional customers the revenue collection is accrued mainly from these sources.

Financial planning in the regions is expenditure oriented where planning of revenue collection gets less emphasis.

###### Donor funding

Donor assistance plays an important role in overcoming the major regional development constraints - communication and transport, shortage of technical staff and means.

###### Internal funding

Central and Local Government funding divisions are felt confusing and covers only a minor part of funding needs in the Water and Sanitation Sector.

##### 4.2 NEW GENERAL FINDINGS

###### Billing and Revenue Collection

Government procedure of Appropriation-in-Aid leads to reduced revenue collection targets and performance. This is due to fact that when surpassing the revenue collection target, regions will not be compensated with extra Government funding. Therefore in order to ensure Government funding, revenue collection targets are set at a low and achievable level. Keeping revenue collection low will also ensure that targets for the next financial year will not been set too high.

###### Village Water Funds

Generally the establishment of Village Water Funds has been successful in all the three regions visited and were able to cover partly or wholly the





O & M costs depending on the scheme accepted, and there is also a potential to partially cover investment costs. However there are number of problems including in some cases mismanagement of funds and inadequate efforts by some village leadership to collect adequate funds. Also the reporting in the use of funds to villagers and other interested parties is not adequate.

Accountability in all the three visited Villages seem to be successful. The planning of VWFs in terms of long-term expenditure and collection however is still weak.

#### Sector Bank Accounts

The possibility of diversion of Central Government Water Funds to other Budget lines has been overcome by setting up separate Sector Bank accounts.

#### Purchasing practices

The Regional Water Engineers Office is bound to follow a centrally controlled purchasing system whilst the External Support Agencies are free to follow other alternatives. Government purchasing procedures were felt time consuming and cumbersome, hence leading to delays in execution of projects, particularly for regions far from Dar es Salaam.

### 4.3 NEW SPECIFIC FINDINGS FOR EACH OF THE REGIONS

#### Billing and Revenue Collection

In Iringa and Morogoro Municipality the responsibility of revenue collection was shared between the Accounts Section and Operations and Maintenance Section.

In Morogoro Municipality sanction from RDD is required before disconnection of water supplies to Industries and Institutions are effected and there is a big accumulation of debts caused by Industries and Institutions.

#### Village Water Funds

In a Village in Iringa region revenue collection duties were shared by Ten Cell leaders who receive no commission for collection, whereas in the two visited Villages in Morogoro the Collector of the Water Fund as well as the Village Water Attendant were paid commission for their duties. The commission for the collector of the Water Fund had improved collection.

Dakawa village in Morogoro has been successful in imposing a penalty on defaulters.

### 4.4 RECOMMENDATIONS

#### Billing and Revenue Collection

Due to emphasis on expenditures in Government planning the responsibility in revenue collection both in MWEM and in the regions is not clearly defined. Account Sections both in MWEM and in the regions being responsible for accounting of expenditures and income should take a more active role for the planning and enhancing of revenue collection.

Possibilities to improve revenue collection in the regions are high but they are hampered by the Government Appropriation-in-Aid system as well as lack of interest at all management levels. The Ministry of Water, Energy

and Minerals should therefore build a task-force (including accounts section and SAT members) to promote revenue collection within regions. This task-force should develop other more motivating alternatives to the present Appropriation-in-Aid system e.g. Village Water Fund being one example. Also information exchange on problems and successes in revenue collection between regions through e.g seminars is important. A seminar for revenue collectors is planned to be conducted by SAT during 1992.

The task-force should also advise regions in choosing the best choice either manual or computerised billing system for their needs. The present exercise to computerise billing systems in many regions by MWEM is not based on intensive studies and it is to be feared that the former manual system or a personal computer billing system could in some cases be more practical and beneficial.

Part of the SAT team should during this year make another visit to Tanga, Moshi and Arusha regions to follow up the costs and benefits of the following three different billing systems in use: Personal Computer in Tanga, manual system in Moshi and Ministry's Main Computer by Arusha.

#### Village Water Funds

Water Funds have been mainly successful to cover Operation and Maintenance costs but the following areas should be further developed in order to improve their functions:

- Long-term planning: a balance target for Water Funds should be set in each village. At present revenue is collected based on no plans and villagers have no idea on what is an adequate level for the Water Fund to cover the long term O & M costs.
- Further development of Water Funds: It is noticed that in some villages there is potential to fund also part of the investment costs. Therefore the idea to cover O & M costs should be extended to cover also the extension costs of the water scheme after the hand-over. This was planned in the Danida-assisted projects but has not been working in reality. In addition to that, Water Funds could be established among the villages even before the implementation of the project has been started. This would contribute to the participation of the villagers as being involved to the project from the very beginning.
- Communication: All the visited three villages used different methods to reward the Collector of Water Funds and the Village Water Attendant. Communication on the experiences of the Water Funds should therefore be shared between villages, districts, regions and the Ministry of Water, Energy and Minerals. MWEM, the regions and districts should play a more active role in co-ordinating the functions of the Water Funds.

In the above mentioned activities the Ministry of Water, Energy and Minerals has the key role to play in collaboration with regions, districts and villages.

#### Purchasing practices

The purchasing practices from Maji Central Stores was felt cumbersome in regions specially in those far from Dar es Salaam. First step: the Central Stores are visited for invoice and to check the availability of goods. Second step: return journey to region for cheque preparation. Third step: with cheque back to Central Stores. Fourth step: in the meantime goods have run out of stock. Fifth step: purchase from local market.

For this inconvenience the regions can partly blame themselves - as it was possible to receive goods from Central Stores without advance payment but the regions left the bills unsettled and Maji Central Stores was obliged to introduce the present system. However, new means to overcome these problems should be discussed between Central Stores and the regions.

The Ministry of Water, Energy and Minerals should find solutions to the above mentioned problem. SAT can play an advisory role in this matter.

#### 4.5 FOLLOW-UP FOR THE FIRST TOUR

Report by A.B.Nnunduma on Billing and Revenue Collection in Arusha Municipality.

## 5. PLANNING

### 5.1 NEW FINDINGS

The following insights have been triggered by the second tour to Mbeya, Iringa and Morogoro Regions. However many have wider inference and may well apply also in other regions and/or at national level.

#### GENERAL:

##### Coordination for project complementality

Lack of planning coordination at the national level has been a major problem for a long time now. There is very little intra-regional and District planning coordination, if at all.

More often than not very little is known about what another institution is doing to promote district, town or regional development sector-wise, to the extent that the impact of social and economic development efforts is not immediately felt because of the lack of project complementality. It was observed in Mbeya for example, that national construction corporations like the National Housing Corporation and private organizations, are not coordinated with those which provide other important services, such as water and sanitation, in order to realize maximum use value of resources. Coordination in this regard would make sure that service levels of completed projects are not impaired due to non-integrated planning.

##### Planning for realistic resourcing

Five year plans for water and sanitation components are prepared but are considered over ambitious, demanding an unrealistic share of funding support compared with other services. This is continued into project preparation, resulting in lost effort in planning unfundable projects. Because of budget limitations, there is almost always slow initiation and progress on a number of schemes, rather than selection of the most needy for rapid implementation. There is surprisingly little planning for joint resourcing between districts or between regions.

##### Unifying planning efforts

There has been an initiative in several regions to draw donors together during Maji week to co-ordinate support. In Morogoro the donor-assisted programme is not however included in the work of the RWE's planning section. In this sense it seems less well integrated than the donor-supported programmes in Iringa and Mbeya. Planning is further fragmented by the separation of rural and urban planning in the RWE's organisation.

Although much effort has been invested in developing community responsibility, in some of the villages visited the community was still heavily donor-oriented. To some extent the same could be said of some personnel in the RWEs offices.

World Bank consultants for the forthcoming "nine towns" infrastructure project did not visit or consult with the RWEs during their recent visits. In Morogoro, one of the towns to be covered by the programme, parallel plans are being developed by MWEM to augment the water supplies with EC support.

There was broad agreement that MWEM should take up a central advising/co-ordinating role, including the revitalisation of the NAC. Although some inter-Regional differences in approach are inevitable, there was a feeling that marked contrasts in donor-supported / non donor supported areas, and between adjacent Regions, was not ideal.

## RECONFIRMED EARLIER FINDINGS:

A number of the general findings from the initial SAT tour were found to apply also to Mbeya, Iringa and Morogoro Regions. They include:

### Scope of Planning

#### Rural Water and Sanitation:

- Planning at Regional and District level emphasises short-term planning, merging into project preparation, rather than longer-term planning.
- Planning is mostly limited to technical and financial planning.
- Planning of budgets for projects does not usually include estimates of recurrent costs.
- Rural sanitation planning lags behind water.

#### Urban Water and Sanitation:

- There is little attention to the planning of sanitation for urban fringe areas.

### Planning approach

#### General:

- Planning guidance tends to be broad and overall five-year and annual plans are principally budgetary guidelines and lists of projects.

#### Rural Water and Sanitation:

- Outside of the ESA-supported programmes, planning is largely reactive rather than priority-guided. Water and sanitation projects are usually triggered in reaction to initiatives from the grass roots.
- Annual planning is quickly outdated by ad-hoc requests coming up from village level.
- There is insufficient priority given to sanitation in the project planning process.
- Political, communication and funding factors have a significant effect on which projects successfully complete the planning cycle.

#### Urban Water and Sanitation:

- Because of the large investments required for urban services, planning tends to be donor-driven and timed.

### Planning Basis

#### General:

- There is a poor flow of information and planning guidance from MWEM HQ.
- Data bases for better planning are generally not established.
- There is little linkage between planning and monitoring/evaluation and operational feedback.
- Planning needs to be better linked to the development of local productive capacity and economic strengthening measures, in order to build the capacity to pay for and administer water.

#### Rural water and Sanitation:

- The calibre of requests coming up from the community could be improved by guidance on self-identification of priority needs and the community potential, and on progressing a proposed project.
- Surveys/data collection for planning purposes are often poor, due to time and money constraints and poor sharing of resources.
- Hydrological data needs updating as a basis for sound planning.
- The criteria used to plan many projects are narrow.

### Institutional and Coordination Issues in Planning

#### General:

- The liaison between the various sectors, and between the different levels and sub-sectors in water and sanitation needs improvement.
- There is little co-ordination between technical planning of projects and the planning of manpower development needs.

#### Rural Water and Sanitation:

- There is no effective mechanism for planning integration of sectoral activities or co-ordination.
- Inadequate consideration of socio-economic aspects often leads to less than ideal project planning.
- Older projects are largely single-sector and linking between new ones is often difficult due to fragmented funding.
- Currently DDCs and RDCs seem to review projects on the basis of budgets and community's perceived priorities rather than also on the potential for interlinking or compatibility.
- Liaison between planning/design and operation/maintenance sections of the RWEs' offices needs strengthening.
- The Regional Planning Unit's role is limited to an advising the Regional Development Director, whose role is in turn advisory.
- Viewed from Regional level, the inputs/liaison between the various agencies involved in the higher level planning/approval stages is unclear.

#### Urban Water Supply and Sanitation:

- Planning for the urban and rural sub-sectors is not cross-linked. Similarly planning of sanitation/sewerage and water supply is poorly co-ordinated.

#### RECONFIRMED EARLIER FINDINGS....Continued

##### Application of the Water Policy

- The Water Policy needs much more active promotion. Aside from the RWEs, there is little knowledge of the Policy or evidence of it being reflected yet in planning.
- Although Village Water Committees and Village Water Funds are now more often being set up, roles, responsibilities and support needs seem unclear.
- Implementation is still perceived to be the job of the functional officer in collaboration with villagers rather than the other way around.

##### Regional Water Master Planning

- The principal focus of many of the Regional Water Master Plans (RWMPs) has been to ensure proper source selection and hence better selection and design of schemes.
- Existing Regional Water Master Plans are dated and considered over-ambitious. Plans are not updated on a regular basis.
- There is a lack of more practical national frameworks and additional guidelines, particularly in priority identification.
- Regional Water Master Plans need to be reviewed and updated to incorporate sanitation planning as well as water supply, together with inter-sectoral co-ordination. The plans need to be reset within the developing Regional economies.
- Future Master Planning and updating would link planning with the commitment of an ESA to support implementation.

##### Points for special consideration in Planning

- Planning as a Cycle  
Improved understanding is needed of the active and cyclical nature of the planning process, and the need for plans to be constantly updated by operational experiences.
- Planning for rehabilitation  
There is insufficient emphasis on rehabilitation of aged or failed schemes in the planning of programmes.
- Sewerage/Sanitation Planning
  - Medium-term Urban sewerage planning is affected by uncertainty as to whether sewerage is to remain the responsibility of the Municipal Councils.
  - The needs of the peri-urban areas are recognised but proven methodologies and resources are lacking.
  - There is insufficient promotional work with regard to rural sanitation.
- Water Source Planning
  - Planning for source protection and water rights control needs more emphasis.
  - Water Resource planning should reflect the need to plan for the disposal of municipal and industrial effluents.

#### Synthesising existing strategic plans

The Second Union Five Year Development Plan, (which is part of the Party (CCM) 1987-2002 Programme and the Party Guidelines on Social and Economic Development for the period 1987-1992), spells out development objectives and priorities and which could be of great value to regional planners when preparing strategic plans. Nonetheless, regional development activities do not follow closely these medium and long-term guidelines to guarantee harmonious sectoral development. Planning Guidelines that are annually issued to all Ministries and the Regions and independent Government Departments, act as catalysts to proper synthesizing of these strategic plans. Ministries and regions can then come up with better prioritized activities and avoid the apparently arbitrary scaling-down of the proposals by the Planning Commission.

#### Programme approach to planning

The programme approach to planning, as adopted in 1987/88, seems to cause some problems to regional planners. If followed properly and more carefully, it could guarantee integrated approach as the method encourages approaches based on sectoral complementarity and sustainability. The approach also considers O & M costs or the implications of O & M, should a particular project be implemented. Evaluation of the Programme Approach should, however, be made to get the required feedback for possible improvement of the approach, to guarantee better understanding, coordination and follow up.

### Environmental aspects

The link between water and waste and the wider environment seems increasingly recognised. In Iringa for example, source protection is promoted by close liaison with the forestry/agriculture officers at District level and there are examples of good collaboration at village level in Morogoro. Agricultural growth and the consequent fertiliser/pesticide pollution of water supplies is a concern in Iringa. Also in Iringa, an environmental education fund has been set up to guide people on environmental protection. Seedlings are offered, village tree-nurseries are proposed and electric stoves are promoted in place of those using charcoal.

### Sanitation planning

This receives universally low emphasis and is poorly resourced. Generally the emphasis in both rural and low-income urban areas sanitation is on self help, supported by advice from health officers and public information campaigns. Planning includes few formalised links between water and sanitation, other than through hygiene education, but this is often seems to be limited to water-point hygiene. There seems to be no linkage either between the Ministry of Health's new Environmental Sanitation Guidelines and the planning of water projects.

There are plans for latrine use to be demonstrated at schools and clinics in the current phase of the Danida-assisted programme in Iringa and Morogoro. However the VIP latrine technology is not considered affordable for rural families and has not been taken up in longer-term planning.

### URBAN WATER AND SANITATION:

#### Integrated urban planning

Most urban water schemes were constructed in the 1950's and early 1960's. Systematic planning and deliberate rationalization of resources to cater for an integrated development approach has been lacking. This has led to almost total disintegration of the urban water supply and sanitation schemes. O & M aspects have been at the tail end and have not formed part of the planning process. This factor has contributed towards sub-sectoral development imbalance between rural and urban water supply and sanitation.

Past, current and future problems surrounding the development of the urban water and sanitation sector are mainly a function of partial or total neglect by institutions concerned with planning. Big towns or municipalities like Mbeya, Iringa and Morogoro, should have had long-term water and sanitation plans prepared in an integrated manner. Mbeya and Iringa Municipalities do not have a central sewerage system, despite the fact that the Municipalities have outgrown most of their infrastructure, including roads, housing, water supply and sanitation. Early planning for improvement is urgently called for.

Currently there is an acute shortage of cess-pit emptiers in the country. Mbeya has got only four in working condition. Iringa does not have any in working condition, and at times the Iringa Municipal Council has been compelled to hire a cess-pit emptier from Mbeya for a limited period of time to alleviate the problem of overflowing cess-pits in the Iringa Municipality. All this can be attributed to putting insufficient weight on an integrated approach to planning. Speedy procurement of the needed equipment is highly recommended.

#### Urban planning and funding:

Due to inadequate generation of domestic resources, funding of the urban water and sanitation sub-sector has always experienced protracted negotiations and agreement procedures leading to an unnecessarily extended project cycle.

More often than not when the scheme is commissioned it is already outdated by the social and economic growth of the town concerned. The duration of the project cycle could be reduced through political goodwill and the willingness to give and take, having in mind that the current Government policy, and indeed that of the just-endorsed Water Policy, is to encourage service beneficiaries to handle the completed projects and maintain them. The policy for urban water supply and sanitation is to recover all the costs for investment and O & M.

#### Issues in urban water and sanitation services planning

Urban services appear to have been neglected by MWEM in the past in preference to rural services. Urban planning was not featured in the Regional Water Master Plans, District centres are not included in the donor-assisted programmes, and no house connections are allowed to be given to new urban growth points.

Overall Urban Master Plans exist but are based on poorly integrated consultation with RWEs on water and sanitary utilities. RWEs are indeed often unaware of urban development plans. The forthcoming World Bank infrastructure support to nine major towns and cities has not apparently been discussed with them. On the other hand, RWEs do not share their monthly reports and plans with the Municipal Directors.

Long lags in the project planning and funding cycle, emphasis in recent years on rural services, burgeoning domestic demand and the growth of new industries has meant urban water and sanitation services are constantly lagging way behind demand. Consequently rehabilitation of the overstretched facilities has become a key issue.

The solid wastes issue is becoming pressing, and there is an awareness of the need for improved and innovative planning in this respect. However first attempts at solid waste privatisation in Mbeya failed, due to a lack of commercial response. Industrial pollution control needs to be better integrated in planning and fines made more realistic.

Municipalities feel that the IBRD proposal that all urban services should in future become the municipality's responsibility seems acceptable to them in principle. However the need for adequate time to build technical capacity is well recognised.

Planning for low-income squatter areas remains a problem. Many are unsurveyed. Planning is based on site and services for surveyed plots and containment of unsurveyed areas by establishing a cordon of surveyed land. How to best plan for low-cost sanitation remains largely unresolved.

#### Planning for utility sustainability

Mbeya urban water and sanitation has not been given adequate logistic support such as vehicles for O & M. The situation is worsening as the Ministry of Finance does not seem to be considering allocating further funds to the sub-sector. DANIDA, which is assisting the Government to develop water and sanitation in Iringa and Mbeya, is restricted by its policy not to invest in urban water supplies and sanitation.

#### Monitoring and feedback

The Urban Sector Engineering Project which is financed by the International Bank for Reconstruction and Development (IBRD) (World Bank), is expected to address itself to most of the crucial issues on urban infrastructure in the nine selected towns, (including Iringa, Mbeya and Morogoro). A proper planning mechanism to include feedback and institutional building, with proper guidelines on scheme monitoring at a local, District,



level should be envisaged and closely followed up by the respective town councils so as to avoid further deterioration of the urban water and sanitation sub-sector.

#### RURAL WATER SUPPLY AND SANITATION:

##### Planning processes

In practice, due to lack of expertise and transport at village and district level, most rural projects originate at district rather than village level. Where village initiatives do come forward they are often unrealistic in terms of cost or available water resources. Similarly, because of lack of personnel, Regions often "by-pass" the Districts, training and transfer of planning and design skills being hindered by the modest professional level of many DWES.

Ensuring plans reflect a balance between the real needs of the communities remains problematic. The most vocal and well supported communities are often the most successful in terms of securing water projects. There is also not yet sufficient joint inter-sectoral planning particularly between water, health, agriculture and roads.

In the donor-supported regions there has not yet been any development of realistic post-donor planning, based on reduced resources. This would include institutional strengthening, scaled-down implementation, incremental community-based management, and community backstopping components.

##### Imparting basic project appraisal skills to villagers

As per the Water Policy, and as a prerequisite for the eventual village scheme takeover and ownership, villagers are intended to be involved at all levels of project conception, planning and construction. Good progress has been made in that direction in the three regions of Mbeya, Iringa and Morogoro. Villagers however, have not been adequately exposed to outline project preparation and basic project appraisal and selection criteria, a deficiency which has led to technocrats at district levels being the source of most projects implemented in the villages. Basic village knowledge in these skills may be lacking for the time being. Districts, in liaison with the villagers should make short programmes for the villagers to be trained in the field, so that the villagers can appreciate most planning issues and also get fully involved in the planning for their development endeavours.

##### Water and sanitation to "peripheral" villages

While it is appreciated that much has been done by various donors to implement rural water supply and sanitation, Regional and District authorities should take urgent measures to supply water and sanitation to the villages which are not covered by donor support, so that the sectoral development balance can be maintained. The DANIDA assisted project in Mbeya and Iringa for example, excludes the so called "non high priority" villages. Due to lack of funds, the Government seems unable to supply these villages with water.

##### Links between planning and design / project preparation

Planning sections of the RWEs' offices are too much involved in detailed design for the donor supported programmes. There is little effort on region-wide planning to attract other donors and towards achieving the 2002 goals.

The concentration on design has meant that insufficient thought has gone into exploring planning concepts, such as the trade off between increasing the design and construction standards against long-run O and M costs, and ensuring good feedback from operational arms and users into the planning process.

### Planning the application of wood bamboo technology

Wood bamboo technology seems to be in a transitional phase. It has yet to receive the support of donors funding the major implementation programmes in the three regions visited, or to be included in regular planning by the RWEs' offices. There is a lack of monitoring and feedback of experiences on wood bamboo on which the inclusion of the technology in future planning could be based. This is further hampered by poor integration with operational departments.

### Research and training needs in rural water/sanitation planning

There is a lack of guidance on the "quality" and ranking of projects as a basis for selection/review criteria during planning.

The economic base of communities needs researching if this is not to be a stumbling block in the development of community based planning. Many communities would be stretched to sustain water scheme attendants as well as village health assistants, day care attendants, village shop attendants etc.

If community-based financing is to be a feature of planning, there is a need to review the methodologies of cost sharing at village level. Similarly, spare parts supply, holding and retailing must become a key part of planning if community-based maintenance is to become a reality.

There is a clear need for training/orientation in community participation techniques for technical staff. A community development department is being set up in the RWEs office in Iringa and Mbeya as current reliance on Maendeleo is frustrated by lack of personnel and transport.

## 5.2 RECOMMENDATIONS

### New recommendations:

1. Regional Development Committees (RDC's) should demand harmonised/well coordinated regional development programmes as compiled, analysed and discussed by the Regional Management Teams. Likewise, the District Development Committees should endeavor to co ordinate district development programmes through the District Management Teams. At the Management Team level, public institutions, private companies and NGO's should be invited to attend the meetings so that they can explain their future plans for their respective areas or districts.  
**Action:** RDCs, DDCs
2. In order to maximize the economies of scale of social and economic development programmes/projects and also to realize maximum effects/impact of resource allocation/expenditure, bordering districts/regions should plan for joint activities/projects.  
**Action:** RDCs, DDCs
3. Donor assisted programmes should be part and parcel of the RWE's planned packages. Implementation of the same should, however, be divided into donor and RWE's areas of concentration, indicating respective levels of funding.  
**Action:** RWEs
4. RWE's planning efforts should consider rural and urban water supply and sanitation as one package, divided into two sub-sectors, squarely falling under RWE's responsibility.  
**Action:** RWEs

5. Central and Local Government should try to rationalise sectoral development by getting equally and actively involved in donor assisted regions so that the served and personnel in the regional and districts water offices can mentally reduce donor orientation. RWE's and DWE's should also get involved in planning for entire regions to attract more government and donor funding so as to realise the target of "water for all by the year 2002".  
**Action:** DCs, MCs, RWEs, DWEs
6. The Ministry of Water, Energy and Minerals should take a leading role in coordinating water and sanitation development at district and regional level through the Regional Water Engineer, who should for example be a liaison point for the World Bank's consultants for the study of nine towns' infrastructure.  
**Action:** RWEs, MWEM PU and NPC via Steering Committee for 9 towns project
7. Regional planning offices should take a leading role in advising district offices (in addition to the planning guidelines that come down from MRALG) on the importance of marrying development objectives with the targets embodied in the national long-term, strategic programmes. There are two blue prints: the Union's Five Year Development Plan and the Party's 1987-2002 Programme and Guidelines on Social and Economic Development for the period 1987-1992.  
**Action:** RPOs, DPOs
8. There is a felt need for the Planning Commission to call a national seminar to educate sectoral planners on the importance of Programme Approach when planning for social and economic development.  
**Action:** Planning Commission
9. It is highly recommended that all towns (big and small) should have future plans that go together with social and economic developments. The plans for water and sanitation sector should consider all the inputs/ parameters required (investment funds, O&M etc.). Donor support in urban centres should be vigorously encouraged. This should be initiated by sectoral ministries and communicated to the Treasury and the Planning Commission.  
**Action:** MRALG, MWEM, Urban Working Group
10. Planning, design and implementation of wood/bamboo development and O&M projects should form part and parcel of the RWE's/ DWE's package of responsibilities. The Ministry of Water, Energy and Minerals should however still continue with research and the outcome should be passed to regions/ districts for implementation.  
**Action:** RWEs, DWEs, MWEM/DWR
11. There needs to be new emphasis on co-ordinated planning to meet the water and environmental sanitation needs of the burgeoning urban areas. Studies, information and co-ordination are lacking.  
**Action:** MWEM via the Urban Working Group. Proposals and inter-ministry workplan by July 1992.
12. There is a need to plan for the development of local entrepreneurial capacity if attempts at partially privatising some urban sanitary services are to succeed. These would include training, lending facilities, and advisory and monitoring/regulatory provisions.  
**Action:** Urban Working Group. Proposals/inter-ministry workplan by July 92

PREVIOUS RECOMMENDATIONS RECONFIRMED:

1. MWEM should further stimulate the debate and encourage an early policy decision on the future strategy for urban water supply, to assist better planning.  
Proposal: Researching opportunities for a National Workshop on urban water supply (for mid 1992) and other relevant activities feature in the short-term workplan of the inter-ministry working group on urban water and environmental sanitation planning, triggered by SAT.  
Action: MWEM via SAT and URWG by April 1992.
2. A practical national action strategy should be developed as soon as possible, to better guide the content and scope of locally developed plans for both rural and urban water supply and sanitation.  
Proposal: ANEC 1992 is already targeted to develop the strategy outline. Its further development is included in MWEM's "self strengthening" project workplan.  
Action: MWEM, through active follow up to ANEC conclusions on strategy via the workplan of its self-strengthening project. Final draft strategy by July 1992.
3. The development of the planned rolling water and programmes for (i) rural and (ii) urban areas should proceed as planned. These programmes will provide overall frameworks, on the basis of which Regional Plans will be able to give much more guidance on programme substance as well as priority setting. This will in turn assist the development of more appropriate projects from community level.  
Proposal: The rolling plans feature as part of the workplanning for the investment planning component of MWEM's "self-strengthening" project.  
Action: MWEM via PU and workplan of IP component of self-strengthening project. Draft programmes by July 1992.
4. Training courses should be developed to guide staff at District and Regional Level in broader-based and more co-ordinated planning, especially in the use of policy, strategy and programme level guidance material to better support the development of local initiatives.  
Proposal: Such training courses should feature in the medium term training plans to be developed by the Ministry under its "self strengthening" project. All involved in water and sanitation planning at District and Regional level to be benefit from training in planning by the end of 1993.  
Action: MWEM, via DMDA and OHRD component of its self strengthening project. Progressively during 1992 and 1993.
5. There needs to be a thorough review of technical and guidance information needs and potentials in the sector, particularly related to the need for information to support better planning.  
Proposal: This issue to be considerably enhanced in the existing workplans.  
Action: SAT Information sub-committee to make proposals by January 1992.
6. A study should be undertaken into how to build more effective co-ordinated planning mechanisms at District and Regional level between the various Ministries and levels and between operational and planning sections of MWEM at Regional level.  
Proposal: Included in Investment Planning component of MWEM's self-strengthening project "Review and propose improvement in MWEM and National sector co-ordination" (Workplan item IP 3.4).  
Action: PU via workplan.
7. Project evaluations should include representatives of several Ministries to encourage awareness of inter-linkages in the water and sanitation sector. Similarly shared inputs in sector monitoring would be helpful. Exchange between programmes supported by different donors should be similarly encouraged by cross-evaluations, exchange visits and inter-regional discussion meetings.  
Proposal: Included in Investment Planning component of MWEM's self-strengthening project "Strengthen sector monitoring, evaluation and information systems" and Sector Liaison (Workplan items IP 3.6 and 5.2).  
Action: PU via workplan
8. A review of the status, validity and compatibility of all Regional Water Master Plans would be helpful, leading to proposals for maximising their usefulness, possibly through selective updating. Clear guidelines should be developed to assist in the development of more appropriate future plans for those Regions not yet covered by RWMPs.  
Proposal: To be added to Investment Planning component of MWEM's self-strengthening project, or to feature as a priority project for external funding and Tanzanian execution.  
Action: PU, decision by December 1991.
9. Guidelines and discussion notes on a number of key issues (such as planning as a cycle, planning for rehabilitation, sewerage/sanitation planning, water source planning) should be prepared by MWEM in its new role under the Water Policy as co-ordinator and adviser for the planning of the sector as a whole.  
Proposal: Already included in Investment Planning component of MWEM's self-strengthening project "Develop regular guidance.." (Workplan item IP 3.1), especially plans to prepare regular "Planning Bulletins".  
Action: PU via workplan

- 13 Guidelines need to be developed to assist the assessment and ranking of proposals/projects selected for further investigation or implementation.  
**Action:** Included already in workplans of PP and IP component of MWEM's self-strengthening project.
- 14 Guidelines need to be prepared to assist planning for the sharing of water and sanitation related resources between Districts and between neighbouring Regions.  
**Action:** MWEM and RWEs. MWEM to prepare discussion note on possibilities of cross-resourcing (already included in Investment Planning component of MWEM's self-strengthening project "Develop regular guidance.." (Workplan item IP 3.1), especially plans to prepare regular "Planning Bulletins"). and to advise RWEs to open discussion with MRALG at Regional level on ways of better optimising scarce resources.
- 15 There is a clear need to plan for training/orientation of technical staff in community participation techniques and the principles of the integrated approach. An addendum to the WRI courses, reciprocal training with MoH on water/hygiene education and sanitation and with MoCDWC on community participation techniques should be explored.  
**Action:** Training of this sort should feature in the medium term training plans to be developed by the Ministry under its "self strengthening" project. All involved in water and sanitation at District and Regional level to be exposed to relevant training by the end of 1993. Initiative required by MWEM, via DPA and OHRD-component of its self strengthening project. Progressively during 1992 and 1993.
- 16 To ensure a good planning basis, there is a need to review the practicality, acceptability and effectiveness of methods of cost sharing at village level.  
**Action:** MWEM in conjunction with MoCDWC
- 17 To guide future planning, a study is required on the cost-benefit of improving the standard of design and construction to achieve decreased long-run costs for operation and maintenance.  
**Action:** MWEM, with RWEs and DWES
- 18 The Environmental Sanitation Guidelines should be harmonised with the Water Policy.  
**Action:** MWEM and MoH via PHC and NAC committees
- 19 The implementation of over-ambitious plans at slow speed in response to budget constraints should be replaced by better selection of priority schemes for early implementation. Planning should also better reflect budgetary realities and offer low cost "community self-improvement" options for those communities unable to be served in the foreseeable future.  
**Action:** MWEM, via planned rolling five year rural and urban programmes

### 5.3 FOLLOW UP ON PREVIOUS TOUR REPORT

The conclusions and suggested follow up action from the previous Tour Report contributed to the development of the following recent initiatives:

**Planning Scope and Approach:**

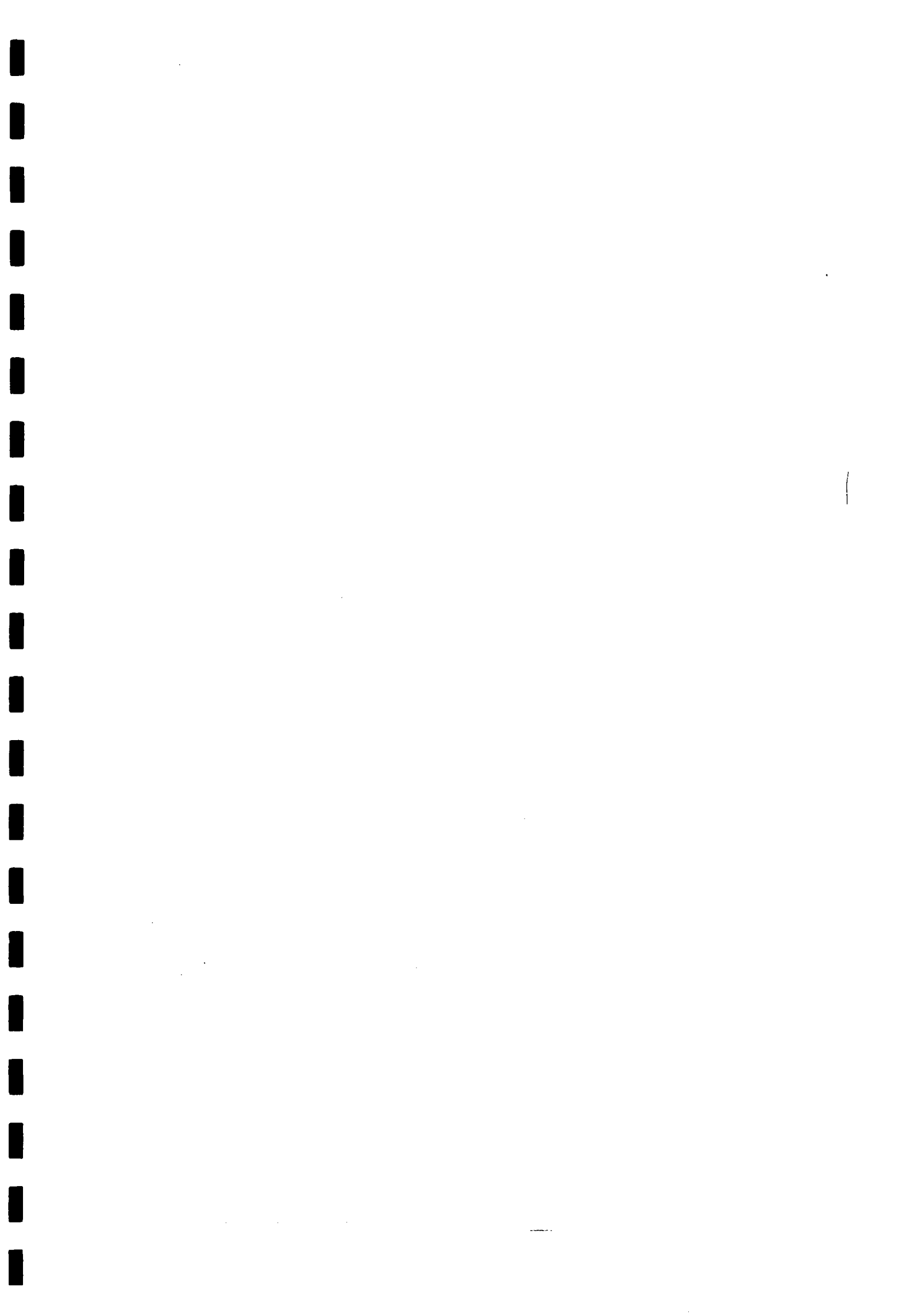
1. An Interministerial Working Group for Water and Environmental Sanitation Planning has been set up. Terms of reference, modus operandi and short term workplan have been developed, and joint work to facilitate collaborative urban sector planning commenced.
2. A national workshop on urban water and sanitation is being planned by the Working Group for 1992.
3. Collaboration with MRAIG and the World bank on the planned "nine towns" urban infrastructure engineering project has been actively progressed. MWEM Ag. Director Planning and NPC now sit on the programme's Steering Committee.
4. An Action Strategy to implement the Water Policy is to be developed during the forthcoming 1991 AWEC meeting.
5. The inclusion of major activities leading to the development of rolling rural and urban programmes has been endorsed in the final version of the workplan for MWEM's "self strengthening" project.

**Planning Basis:**

6. Major inputs have been made by MWEM to the Country Sector Monitoring Workshop in Arusha (August 1991), leading to the development of an inter-ministry Monitoring Action Plan.
7. A SAT sub-committee has been set up to look into issues related to information.

**Institutional and Co-ordination aspects of planning:**

8. Interlinking studies have been built into the IP component workplan of MWEM's self strengthening project, and the Urban Working Group programme to investigate sector planning practices, linkages and co-ordination.



## 6. PROJECT PREPARATION

### 6.1 RECONFIRMED PREVIOUS FINDINGS

The findings generally reconfirm those of the visits to other regions, i.e.:

1. District and village levels are insufficiently prepared and equipped to take full part in the project preparation process, nor are responsibilities and roles specified in the Water Policy clearly understood;
2. The difference between project preparation and planning seems to be unclear to most of the Planning & Design Engineers in the regions. Consequently they are more involved in preparing projects only when needed or funds are available rather than preparing and reviewing plans and strategies;
3. Project preparation does not include planning of long-term O & M, environmental impact and environmental sanitation and may lack realistic planning of water supply project implementation;
4. Project preparation is not systematically based on a multi-sectoral footing at all levels and is not systematically integrated with overall regional long-term planning;
5. Financing arrangements in project implementation are confused;
6. Service level options offered to beneficiaries are in many cases limited and not related to O & M affordability;
7. Project preparation practices are not systematically based on the use of local skills and materials and on-the-job training;
8. Regional projects tend to not be fully integrated into the local institution at different levels, as an opportunity for its' strengthening;
9. Design manuals and guidelines are not fully geared to village based O & M management and incorporation of local skills and materials;
10. Project appraisals at district and regional levels are not at all places carried out in a systematic manner and in multi-sectoral perspective;
11. Introduction of VIP latrine technology is not affordable by the low income groups;
12. Implementation of sanitation in both urban and rural areas is lagging behind.

### 6.2 SPECIFIC FINDINGS

1. Operation and maintenance experiences from completed projects are rarely used to improve on the various aspects in the project preparation and design. This is due to lack of a well established information exchange system between the O & M section and the Planning & Design Section.



2. In the ESA supported projects in Mbeya and Iringa Regions, beneficiaries participatory approaches in preparing projects are intensively used. This is not limited to choosing locations for various components of the project, as is usually the case in other areas. In the Regional Water Master Plans lists of high priority villages have been drawn from which the Regional Project Steering Committee identifies villages where projects are to be implemented. The RWE's Office then prepares pre-feasibility reports with different alternatives of supplying water to each village. These reports are discussed in the respective villages with guidance from the Community Development Staff, from the Village Participation Cell (VPC) established in the RWE's Office.

Further actions such as survey, preparation of detailed designs and bill of quantities are carried out after a village has understood and agreed to undertake the project. This kind of approach requires the technical (hardware) staff to have some (software) knowledge of community participation to complement the efforts of the Community Development staff. This kind of knowledge seems to be lacking not only among project preparation technical staff but also among construction and operation and maintenance staff.

### 6.3 RECOMMENDATIONS

1. Training programme for Design Engineers on Planning should be initiated by SAT to be used by the training section so as to complete the training within a period of two years. As an interim measure guidelines in this respect should be prepared and issued by the DDCM in collaboration with the Planning Unit to all regions within a period of one year.
2. Guidelines regarding operation and maintenance consideration in planning, project preparation and design need to be prepared and distributed to the regions within a period of one year by DDCM in collaboration with DOMWL.
3. Uniform approaches regarding community participation in planning and project preparation should be formulated by SAT and adopted by all the regions within a period of two years.
4. The Water Resources Institute should within the next two years include the subject of community participation in its curriculum and also arrange for in-service training on this subject for the technical staff already in the field.

### 6.4 FOLLOW-UP ON PREVIOUS TOUR REPORT

- Institution of the guidelines on steps to be followed in project preparations (Water Supply Design Manual, Ch 1).  
Follow-up status:
- Production and dissemination of sufficient copies of the Water Supply Design Manual.  
Follow-up status:
- Development of step-by-step project preparation guidelines and formats for use at different levels.  
Follow-up status: incorporated in the DDCM Detailed Workplan.

- Inventory of prepared projects followed by its up-dating.  
Follow-up status: incorporated in DDCM Detailed Workplan.
- Regions to review and up-date prepared projects prior to embarking on new projects.  
Follow-up status:
- Project preparations to be set on intersectoral and long-term O & M footing.  
Follow-up status: incorporated in the DDCM Detailed Workplan.
- Capacities of project preparation and implementation supervision to be based on harmonisation of procedures, standards and means, systematic training and monitoring.  
Follow-up status: incorporated in the DDCM Detailed Workplan.
- Redefinition of categories of National, Regional and District projects.  
Follow-up status:



## 7. OPERATION AND MAINTENANCE

### 7.1 RECONFIRMED PREVIOUS FINDINGS

1. Planning of village managed O & M in terms of finance, personnel, supplies and engineering should be taken into account in project preparation stage, while O & M experiences in practice need to be incorporated in design criteria;
2. Village and DWE capacities need to be raised in terms of manpower, equipment and guidelines;
3. Spare parts supplies at village level require to be secured and planned as a rule;
4. The Water Policy needs to be disseminated at the various levels and institutions while responsibilities require to be agreed and followed-up accordingly. Clear guidelines on the implementation of the Water Policy at regional, District and Village levels are lacking;
5. O & M monitoring, information, communication and co-ordination between sectors and levels are to be upgraded;
6. Financing arrangements are inconsistent;
7. The Water Utilisation and Pollution Control act needs to be enforced and followed-up;
8. Long-term planning of O & M lacks statistics on actual requirements;
9. VWF's where established are not necessarily managed according to O & M requirements and may lack adequate auditing;
- 10 Village affordability of water supply O & M requires to be taken into account in project preparation;
- 11 Urban water supply and sanitation/sewerage planning have to be integrated;
- 12 O & M manuals and guidelines should be developed and disseminated;
- 13 Procurement procedures are cumbersome and need to be reconsidered;
- 14 Water sources require to be monitored in terms of quantity and quality of supply;
- 15 Stores/workshops were not adequately covered by the visits.

### 7.2 SPECIFIC FINDINGS

1. Mbeya Municipal sewerage treatment plant and Iringa Municipal water supply pumping stations suffer from operation and maintenance deficiencies;
2. Development of water supply for sub-urban dwellers is welcomed. However O & M needs to be transferred to the beneficiaries;

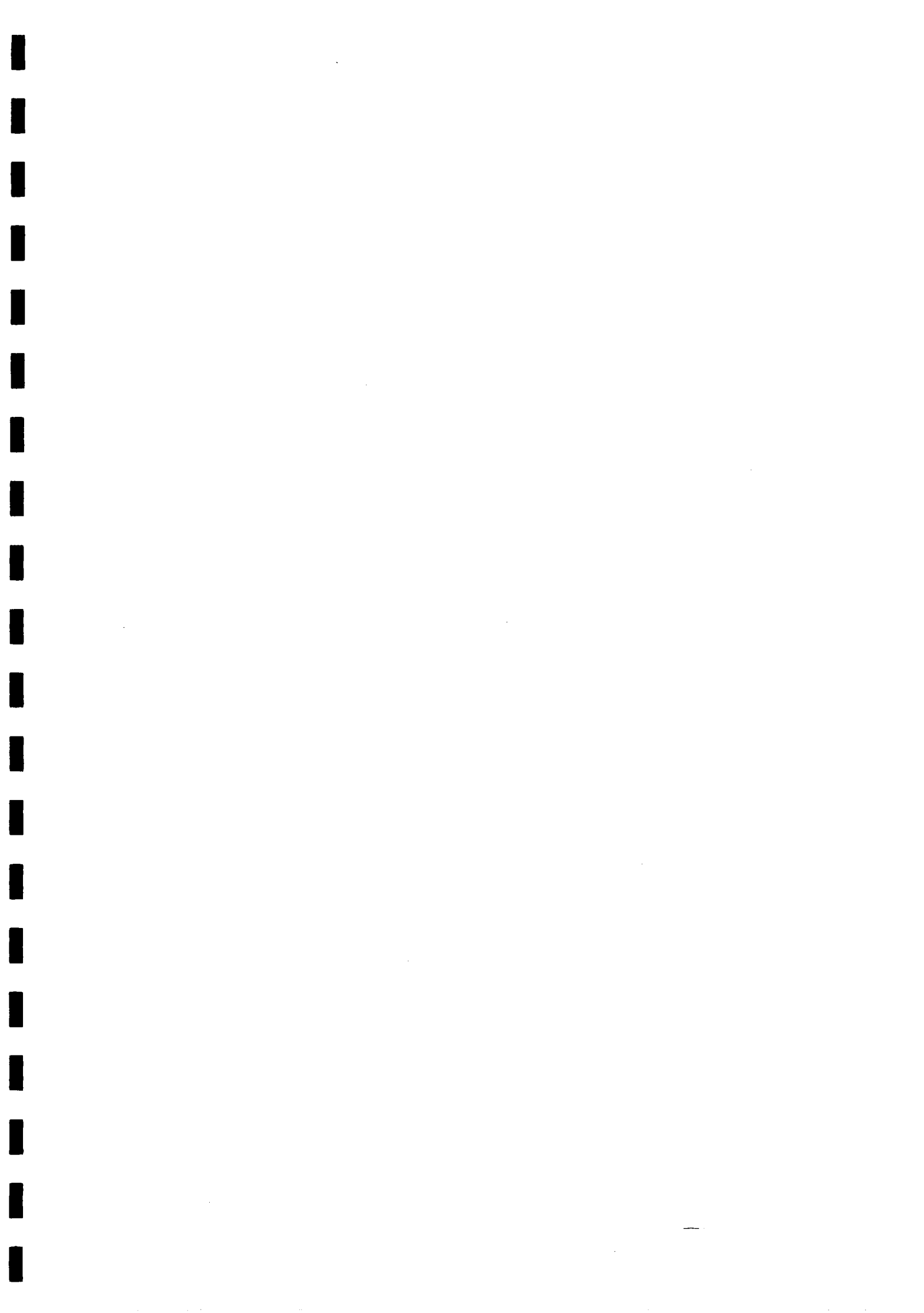
3. Siting of wells in sub-urban areas requires to take into account potential danger of ground water pollution caused by sanitary conditions, e.g. latrines, septic tanks;
4. Sustainability of installed village water supply appears to depend on village leadership, the economic basis of the village to support O & M, on management of the VWF and adequate monitoring and back-up by DWE;
5. Solid wastes disposal in Iringa Municipality is not well managed;
6. Womens' willingness to participate is hampered by male dominance among other factors;
7. Drainage at the water delivery points seems to be well incorporated in the design; care has to be taken that groundwater is not contaminated by sanitation facilities such as latrines and septic tanks;
8. As shop keepers seem not to be interested in stocking slow moving spares, Government or villages would have to maintain sufficient stocks of common spares;
9. In Morogoro Region in the Netherlands supported programme handing over to the villages of water supply schemes is preceded by their rehabilitations, which are carried out under RDD responsibility and not directly under the RWE as in other areas;
10. Collection of statistical information on maintenance expenditure and spares is required for O & M planning;

### 7.3 RECOMMENDATIONS

1. Training of DWE office staff with regard to monitoring and back-up of village water supply, sanitation services and water sources should be initiated by SAT to be continued by DMDA so as to be completed in two years. In the interim guidelines and manuals will have to be prepared and issued by DOMWL and Regional O & M Engineers be trained as trainers, within a one year period;
2. Uniform approaches regarding village managed O & M of water supply and sanitation services should be formulated by SAT and be introduced within a two years period by DOMWL;
3. Uniform approaches regarding monitoring and evaluation of water supply and sanitation services performances, collection of statistical information and feed-back in design criteria require to be formulated by SAT and introduced by DOMWL within a two years period;
4. Uniform approaches regarding spare parts procurement need to be formulated by SAT and followed-up by DOMWL and Central Stores;
5. Uniform approaches for the implementation of the water policy to be formulated;

#### 7.4 FOLLOW-UP ON PREVIOUS TOUR REPORT

- Early enforcement of the Water Utilisation and pollution Control Act.  
Follow-up status:
- Early follow-up on MWEM advise regarding billing criteria in sewerage services.  
Follow-up status:
- Early dissemination of the Water Policy through a RWE workshop, on behalf of provision of guidance in operation and maintenance management of water supply and sanitation services by the authorities of regions and districts  
Follow-up status: incorporated in DOMWL Detailed Workplan
- Meeting and agreement with Maendeleo, Afya and MRALG with regard to addressing the communities with respect to awareness of the responsibilities in operation and maintenance of own water supply and sanitation services and the transfer of ownership of water supply schemes.  
Follow-up status:
- Follow-up by MRALG and MWEM and issue of circular with respect to the transfer of ownership of water supply schemes to the villages and to the establishment of Village Water Committees and Village Water Funds.  
Follow-up status:
- Preparation and institution of water supply and sanitation operation and maintenance guidelines.  
Follow-up status: incorporated in DOMWL Detailed Workplan.
- Arrangement of procurement of spare parts and services at all levels.  
Follow-up status: incorporated in DOMWL Detailed Workplan.
- Workshop on operation and maintenance management practices.  
Follow-up status: incorporated in DOMWL Detailed Workplan.
- Integration of water supply, sanitation and sewerage operation and maintenance planning in project preparation.  
Follow-up status: incorporated in DOMWL Detailed Workplan.
- Establishment of water supply and sanitation operation and maintenance performance monitoring in agreement with Maendeleo, Afya and MRALG.  
Follow-up status: incorporated in DOMWL Detailed Workplan; Sector Monitoring Workshop, Arusha, August 1991.
- Encouragement of systematic integration of ESA supported project activities into existing local institutions at all levels in view of institutional strengthening.  
Follow-up action: practiced; subject for sector forum discussion.



## 8. INFORMATION, MONITORING, REPORTING

### 8.1 NEW GENERAL FINDINGS

- Information on the impact of agricultural chemicals on the environment is lacking;
- Information on the improvement of sanitation facilities are not yet fully co-ordinated between RCDO, RWE and RHO;
- While Water and Sanitation Sector co-ordination exists at regional level there is no institutional arrangement that facilitates such co-ordination at district and lower level.

#### PREVIOUS RECOMMENDATIONS RECONFIRMED:

##### Information

- Technical and guideline information seems not to be widely available at regional level and hardly at all at district level. Information support from HQ level is rarely requested or provided.
- Other than the annual AVEC conference, there appears to be little information exchange between officers in different regions.
- Promotional information (for example setting out the background to the Water Policy, or explaining the roles of Village Water Committees, or promoting low-cost urban sanitation) does not seem common.
- The opportunity to promote information issues in ESA-supported programmes is not always taken.
- Data bases for better planning are generally not yet established.

##### Monitoring

- Monitoring by DWEs is based largely on an assessment of the working status or otherwise of schemes and technical criteria. Accurate monitoring is hampered by poor communication and transport capacities.
- No attempts seem to be made to link the monitoring needs of the water and sanitation sector with the systems of other agencies including AFYA, MAENDELEO and KILIMO.
- Data collection is not adequately linked to the real needs of practitioners, and is rarely computerised for easy access, processing and reproduction.
- Regular monitoring of project implementation is lacking.
- Operations and maintenance of water supply and sewerage/sanitation services in terms of quantity, quality and continuity are not systematically monitored.
- The linkage between planning and monitoring/evaluation is weak.

##### Reporting

- Reporting is one way (upwards) and there seems to be little feed back.
- Regular data collection and flow is lacking and reporting mainly takes place in cases of break down.



## 8.2 NEW SPECIFIC FINDINGS

- In Iringa Municipality Monitoring on the Water and Sanitation Sector is based on various Regional and District Committee meetings, quarterly and annual reports as well as the feedback from the public;
- It was observed that there is inadequate information exchange and linkage regarding reports being made by various institutions concerned with water supply and sanitation programme in Mbeya Municipality;
- Environmental protection programme is established in Iringa. There is poor information flow and linkages and feedback mechanisms are non-systematic and inadequate. Co-ordination between sector activities is insufficient.

## 8.3 RECOMMENDATIONS

- Recommendations are subject to the publication of the Arusha Workshop on Sector Monitoring, soon.

## 8.4 FOLLOW-UP ON PREVIOUS TOUR REPORT

- The National Workshop on country sector monitoring which took place in Arusha in August 1991 combines all follow-up actions from the previous report. The agreed Action Plan which was the major output from the Workshop will be the basis for continuing follow-up.

## 9. EVALUATION OF THE SECOND ADVISORY/FAMILIARISATION TOUR

The following points were made in an assessment of the tour in open discussion amongst team members on the last day of the tour:

### 9.1 OBJECTIVES

The objectives proved adequate and largely achievable. Some areas for improvement were:

- \* although the main objectives were known, the specific objectives were agreed at too late a stage in the tour planning;
- \* the important role of offering on the spot advice was missing from the objectives;
- \* the objectives did not include making recommendations in a report of findings;
- \* the objectives did not include an obligation for SAT to help trigger action on the follow up recommended.

### 9.2 METHODOLOGY

The adopted methodology was felt to have been appropriate and successful, bearing in mind the objectives. The informal open-ended group discussions generate confidence and openness and the daily reviews and development of consensus were vital. Splitting into smaller working groups to formulate draft observations worked well and saved time.

Observations for further consideration were:

- \* the use of a questionnaire in support of the open ended discussions;
- \* the written "brief" on the project needs updating and made more attractive to read;
- \* despite best efforts, poor communications meant that not enough notice was given to many of the resource persons visited;
- \* the size of the team should be advised in advance so that an appropriate level of participation can be planned from the institutions visited;
- \* the methodology used in the tours should be shared with the hosts in advance (eg the importance of 2-way discussion at village level).

### 9.3 REPORTING/ FOLLOW-UP ON PREVIOUS TOUR

#### Reporting:

The previous report had been generally well received. However follow up had been hindered by proposals for action not being accompanied by indication of who should take the action and by when. Delayed finalisation and circulation to the RWEs had reduced the potential interest in and impact of the tour at regional level. Observations based on the Tour 1 experiences included:

- \* Reporting deadlines should be kept if the tour reports were not to lose their impact;
- \* Reporting guidance notes prepared for the current tour would help ensure uniformity and completeness;
- \* An easily identified executive summary (tinted paper), photographs, and a bound-in introductory letter would add to the readability of tour reports. The executive summary could also be separately circulated.

#### Follow-up:

Follow up to Tour 1 could have been more active. Suggestions for improving this included:

- \* an obligation on SAT members to report to SAT meetings on follow-up;
- \* clearer recommended actions, including who is to take the actions and by when;
- \* two or three SAT members to return to the same regions after a period to discuss the report and follow up to it;
- \* less delay in getting the report to the regions (within 6 weeks of the tour);
- \* enough copies to be printed to enable wide distribution;

#### 9.4 LOGISTICS

##### transport:

- \* a full time driver should accompany the team on subsequent trips to make appointments, carry out essential errands and relieve the advisers in case of illness;
- \* vehicles should be properly equipped with emergency gear and medical kit;

##### accommodation:

- \* future organisers of tours should identify two or three hotel options in each town for members to express their preference. These should be within walking distance however to enable easy evening discussions;

##### programme:

- \* generally the programme had been too tight, reducing the effectiveness of the team;
- \* a short lunch break should be programmed into the full-day schedules;
- \* a half day for rest and recreation on Sunday and on arrival at a new destination should be built into the programme;
- \* ways to ensure further social interaction between team members should be explored;
- \* a limit of 1 hour should be set on each interview to encourage fast-moving discussion;
- \* more time should be set aside for discussion at district level;
- \* field visits and community-level discussion are necessary in peri-urban as well as rural areas;

#### 9.5 PARTICIPATION

Team participation was felt to be good and well balanced. Intra-team communication and group-dynamics were felt to be very good.

Other observations included:

- \* the need for all members to generate wider as well as subject-specific discussion;
- \* the need for nominees to be appointed to represent the subject areas of absent team members (for example O&M and water resources were not directly represented this tour);
- \* wider participation from the regional side to be invited to develop more of a panel-based discussion;
- \* the role and level of participation of the advisers during the tours to be further discussed;

## 9.6 EFFECTIVENESS

### Overall effectiveness

A generally positive indication of the immediate effectiveness of the tour was reflected by:

- appreciation and positive responses to the initiative of MWEM to discuss issues with the different authorities at Regional, District and village level;
- direct and timely feed-back to the RWEs' offices on the teams's findings in terms of agreed observations;
- learning effects within the SAT team by the multi-disciplinary interviews and discussions by the team as a whole;
- learning impact on the Advisers in terms of increased awareness of the key issues at different levels;
- promotion of team building within SAT;
- increased motivation of the SAT members.

However immediate effectiveness was probably reduced by the fact that the persons visited were generally not well informed in advance about the purpose of the SAT visit.

Mid-term and long-term effectiveness mainly depends on the follow-up given to the recommendations. This is affected by the willingness of those involved to take action and SAT's capacity to follow up, as well as by the practicality of the recommendations themselves and their formulation in the tour report. In general the longer-term effectiveness of the tour is linked to successful implementation of the Project Workplans.

### Some subjective assessments

Based on a subjective criterion of "degree to which the objectives were achieved" the effectiveness of the tour was assessed by some team members as follows:

#### a1 two-way familiarisation with the regions:

Sector activities: score: 25/50

Geographical/natural conditions: score: 8/10

Institutional aspects: score 35/40

OVERALL ACHIEVEMENT: 68%

#### a2 establishment of communication linkages with the regions:

laying of groundwork: score: 50/60

initiation: score: 10/40

OVERALL ACHIEVEMENT: 60%

b. verification of activities formulated in the Project Document and Workplan:

OVERALL ACHIEVEMENT: 80%

c. identification of issues of relevance to several or all regions:

OVERALL ACHIEVEMENT: 70%

d. appraisal of issues unique to the regions visited:

OVERALL ACHIEVEMENT: 65%

e. identification of activities for immediate follow up:

identification: score: 40/60

follow up initiation: score: 10/40

OVERALL ACHIEVEMENT: 50%

f. collection of information useful for specific project activities:  
not well planned, a few areas of achievement

OVERALL ACHIEVEMENT: 30%

g. testing/ refining the current and potential role of the project and SAT:

testing via questions: 14/20

project role: 25/30

SAT role: 16/20

Workplan: 20/30

OVERALL ACHIEVEMENT: 75%

**ANNEXES:**

1. Objectives of the Tour
2. List of Participants
3. List of Officials Interviewed
4. Itinerary

## ANNEXE 1

### OBJECTIVES OF THE TOUR

#### General Objectives

1. two-way familiarisation and establishment of communication linkages with the regions
2. verification of activities formulated in the Project Document and Workplan

#### Specific Objectives

1. identification of issues of relevance to several or all regions
2. appraisal of issues unique to the regions visited
3. identification of activities for immediate follow up
4. collection of information useful for specific project activities
5. testing/ refining the current and potential role of the project and SAT

**ANNEXE 2**

**LIST OF PARTICIPANTS**

Sector Advisory Team (SAT) Members:

Mr.F.Z.Njau	National Project Co-Ordinator
Mr.F.Aram	Project Preparation Counterpart (DSD)
Ms.R.Budimu	Project Preparation Counterpart (DWB)
Mr.E.Kulwizila	Finance and Management Information Counterpart
Mr.P.Kusare	Organisation and Human Resources Development Counterpart
Ms.V.Lyapa	Finance and Management Information Counterpart
Mr.B.Njau	Project Preparation Counterpart (DDCM)
Mr.A.G.T.Nyenza	Investment Planning Counterpart
Mr.H.Piirainen	Finance and Management Information Adviser
Mr.M.Schroder	Project Preparation Adviser
Mr.M.Seager	Investment Planning Adviser



### ANNEXE 3

#### LIST OF PEOPLE MET

##### MBEYA REGION

Mr.M.B.Mfugale - Regional Water Engineer  
Mr.B.J.Kalua - Ag. Municipal Director  
Mr.F.B.Mashuda - RPCO and Ag. RDD  
Mr.Said Ally - Planning and Control Officer  
Mr.Mganda - RCDO  
Mr.S.Madsen - Regional Project Adviser (Danida supported Project)  
Mr.Mwakalinga - DPLO and Ag. DED, Mbeya Rural District  
Dr.Kisimu - DMO, Mbeya Rural District  
Mr.Kadule - DWE, Mbeya Rural District  
Mr.P.L.Meleck - Ag. RHO  
Mr.D.P.Maró - Head O & M - RWE's Office  
Mr.J.P.Gwimile - Head Planning and Construction RWE's Office  
Mr.G.Kaduri - District Water Engineer - Mbeya Rural District  
Mr.S.K.Babara - Resident Engineer - DANIDA supported water supply programme

##### IRINGA REGION

Mr.J.Matiku - RDD Iringa Region  
Mr.G.S.Ngondo - Ag. DED  
Mr.Leo Jensen - Regional Project Adviser DANIDA  
Mrs.Bilte Eglensen - Village Participation Adviser DANIDA  
Mr.Roger - Operation & Maintenance Adviser  
Mr.B.J.Kaluwa - Ag. Municipal Director/Senior Manpower Management Officer  
Mr.Mashuda - Ag. Regional Development Director/Regional Planning Officer  
Mr.Madsen - Regional Project Advisor  
Mr.Livanda - Regional Community Development Officer  
Mr.Mwakalinga - District Planning Officer, Mbeya Rural District  
Dr.Kisimu - District Medical Officer, Mbeya Rural District  
Mr.P.L.Meleck - Ag. Regional Health Officer  
Mr.W.Anyandwile - Community Development Officer  
Mr.J.Matiko - Regional Development Director  
Mr.F.M.Seiya - Ag. District Planning Officer  
Mr.G.S.Ngo - Ag. District Executive Director  
Mr.Haule - District Water Engineer  
Mr.Y.Msemakweli - Regional Local Government Officer  
Mr.K.A.Ng'ungu - Regional Community Development Officer  
Mr.M.B.Magimba - Regional Water Engineer  
Mr.S.A.Tarimo - Municipal Director  
Mr.Mlugu - Municipal Engineer  
Mr.Kyambile - Regional Health Officer  
Mr.Ngongu - RCDO

##### MOROGORO REGION

Mr.Malimba - RWE Morogoro Region  
Mr.O.T.Mloka - Planning Engineer  
Mr.Kilimomoshi  
Mr.A.D.O.Midelo - Municipal Director

Mr. Makumba - Urban Engineer RWE's office  
 Mr. Masangya  
 Mr. E. K. Mahugi - Planning Engineer  
 Mr. A. I. Makongo  
 Mr. Mponela - DED Morogoro District Council  
 Mr. Mambalia - DPO Morogoro District Council  
 Mr. Choma - Ag. RHO  
 Mr. Mayowera - RCDO  
 Mr. J. Kisiku - Regional Local Government Officer  
 Mr. J. A. Makiluma - Ag. RDD/Regional Administration Officer  
 Mr. Abbaker - Municipal Director  
 Dr. F. Fupi - Regional Medical Officer  
 Mr. Lyimo - Regional Health Officer  
 Mr. F van der Laak - DHV Adviser  
 Mr. M. Hans - DHV Adviser

VILLAGE WATER COMMITTEE NYAMAHAWA/MALINZANGA VILLAGES

Biatu Makeula - Chairman G.S  
 Charles Mkusa - Secretary G.S  
 Isack Mangula - Member G.S  
 Regina Msekefu - Member G.S  
 Eliza Mbembe - Member G.S  
 Sebastiani Nzalla - Water Chairman, Nyamchana  
 Mwatatu Abdallah - Water Member, Nyamchana  
 Peter Nakuhule - Water Member, Nyamchana  
 Petro Lameck - Village Chairman, Malinzanga  
 Doctor Wilani - Village Secretary, Nyamahana  
 Luciano Mbossa - Village Secretary, Mlowa

ANNEKE 4

ITINERARY

- Sunday 15.09.1991 Travel/ Mbeya  
06:30 - Departure Dar es Salaam for Mbeya  
18:45 - Arrival in Mbeya  
19:30 - Reiteration of objectives and development of methodology
- Monday 16.09.1991 Mbeya Region  
08:15 - Discussions with RWE, Mr.M.B.Mfugale  
12.00 - Discussions with Mr.B.J.Kalua, Ag. Municipal Director  
13:15 - Discussion with Mr.F.B.Mashuda, RPCO and Ag. RDD  
15.30 - Discussions with RWE, Mr.M.B.Mfugale  
18:30 - Group Discussions and reporting for the day
- Tuesday 17.09.1991 Mbeya Region  
08:00 - Discussion with Mr.S.Madsen, Regional Project Adviser (Danida supported Project) and Mr. Mganda RCDO  
09.30 - Discussions with Mr.Mwakalinga, DPLO and Ag. DED, Mr.Kadule DWE and Dr.Kisimu DMO, Mbeya Rural District  
11.30 - Discussions with Mr.P.L.Meleck Ag. RHO  
14.30 - Group Discussions and reporting for the day
- Wednesday 18.09.1991 Mbeya Region/ Travel/ Iringa Region  
08:30 - Presentation of summary of findings to RWE Mbeya  
10.30 - Departure for Iringa  
13.30 - Arrival in Iringa  
14.00 - Discussions with Mr.J.Matiku, RDD Iringa Region
- Thursday 19.09.1991 Iringa Region  
08.30 - Discussions with Mr.F.M.Seiya, Ag.DPO and Mr.G.S.Ngondo Ag.DED  
10:15 - Discussions with Mr.Y.Msemakweli RLGO  
11:00 - Discussions with Mr.Ngongu RCDO  
12.00 - Discussions with RWE Mr.M.B.Magimba  
13.30 - Discussions with Mr.L.Jensen, Mrs.B.Eglensen and Mr.Roger, Danida Advisers  
14.00 - Discussions with Municipal Director Mr. S.A.Tarimo and Mr.Mlugu Municipal Engineer  
15.00 - Discussions with RHO, Mr.Kyambile  
16.00 - Discussions with Mr.L.Jensen and Mr.Roger, Danida Advisers  
19.00 - Group Discussions and reporting for the day
- Friday 20.09.1991 Iringa Region  
08.00 - Field visit to Nyamahana scheme  
14.45 - Individual discussions with RWE's staff  
18.00 - Group Discussions and reporting for the day
- Saturday 21.09.1991 Iringa Region/ Travel  
08.30 - Presentation of summary of findings to RWE Iringa  
10.00 - Field visit to pumping station and treatment plant  
11.00 - Departure for Morogoro  
20.00 - Discussions with Mr.Malimba, RWE Morogoro

Sunday 22.09.1991 Morogoro Region  
10.00 - Field visits to Luhindo and Dakawa villages  
16.00 - Group Discussions on Report preparation and reporting for the day

Monday 23.09.1991 Morogoro Region  
08:00 - Discussions with Mr.Malimba, RWE Morogoro  
09:00 - Discussions with Mr.J.Kisiku, RLGO  
10:10 - Discussions with Ag.RDD & RAO Mr.J.A.Makiluma  
11:00 - Discussions with Mr.F van der Laak and Mr.M.Hans, DHV Advisers  
12:30 - Discussions with Municipal Director Mr.A.D.O.Midelo and Urban  
Engineer RWE's office Mr. Makumba  
14.30 - Group Discussions and reporting for the day

Tuesday 24.09.1991 Morogoro Region  
08:45 - Discussions with RCDO, Mr.Mayowera  
09:30 - Discussions with Ag.RHO, Mr.Choma  
11.00 - Discussions with RMO, Dr.F.Fupi  
12.00 - Discussions with Mr.Mponela DEED and Mr.Mambalia DPO, Morogoro  
District Council  
14.30 - Individual discussions with RWE's officers  
17.00 - Group Discussions and reporting for the day

Wednesday 25.09.1991 Morogoro Region/ travel  
09.15 - Presentation of summary of findings to RWE Morogoro  
11.30 - Tour evaluation exercise  
14.30 - Return to Dar es Salaam