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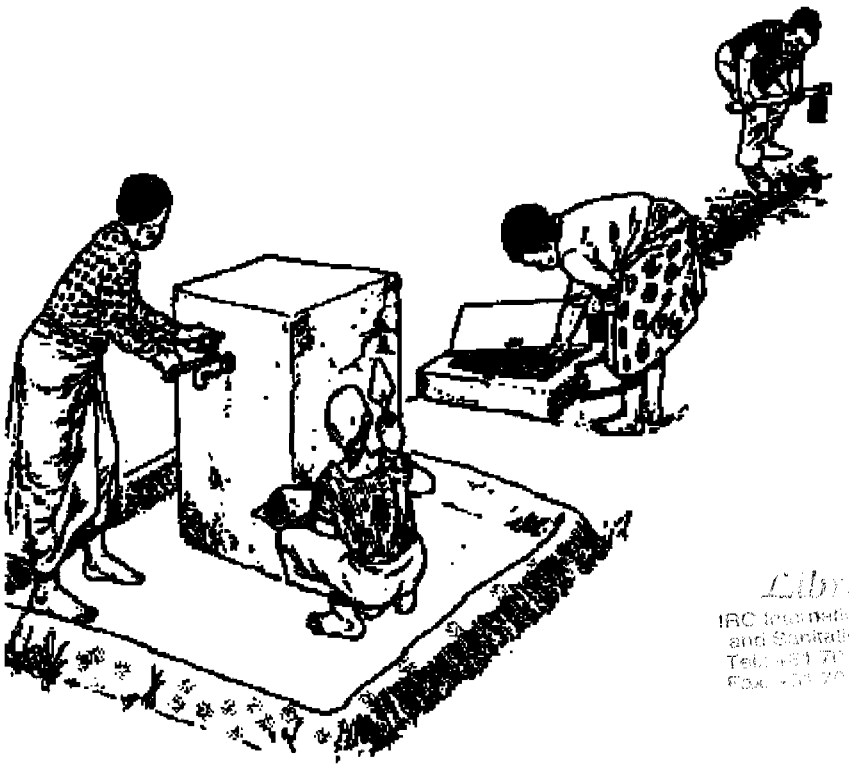
MS D. R. MBAGA

Individual Study
September 1999



Community Management for Sustainable Rural Water Supplies and Sanitation

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Acknowledgements

I would like to express my most profound gratitude to the Netherlands government for whose Netherlands Fellowship Programme scholarship enabled me to pursue Master of Engineering in Water and Environmental Resources Management (1998/99). (WSM)

I am greatly indebted to IHE through which I obtained skills and wonderful experience during the eleven months of study.

I am also grateful to my employer, Principal Secretary Ministry of Science Technology and Higher Education, Mr. Abdallah Ngororo, for granting me study leave to enable me study at IHE.

Special thanks goes to my Supervisor, Mr. Teun Bastemeijer, whose critical comments and guidance helped me to organise my work to the required academic level.

Finally but not least, to my beloved husband, Adam, my children Leila and Yassa and my parents, I offer them special place in my heart for giving me support, encouragement and love all through my study.

To all others, especially my colleagues who contributed in one way or the other towards this successful end, I extend my thanks.

Abstract

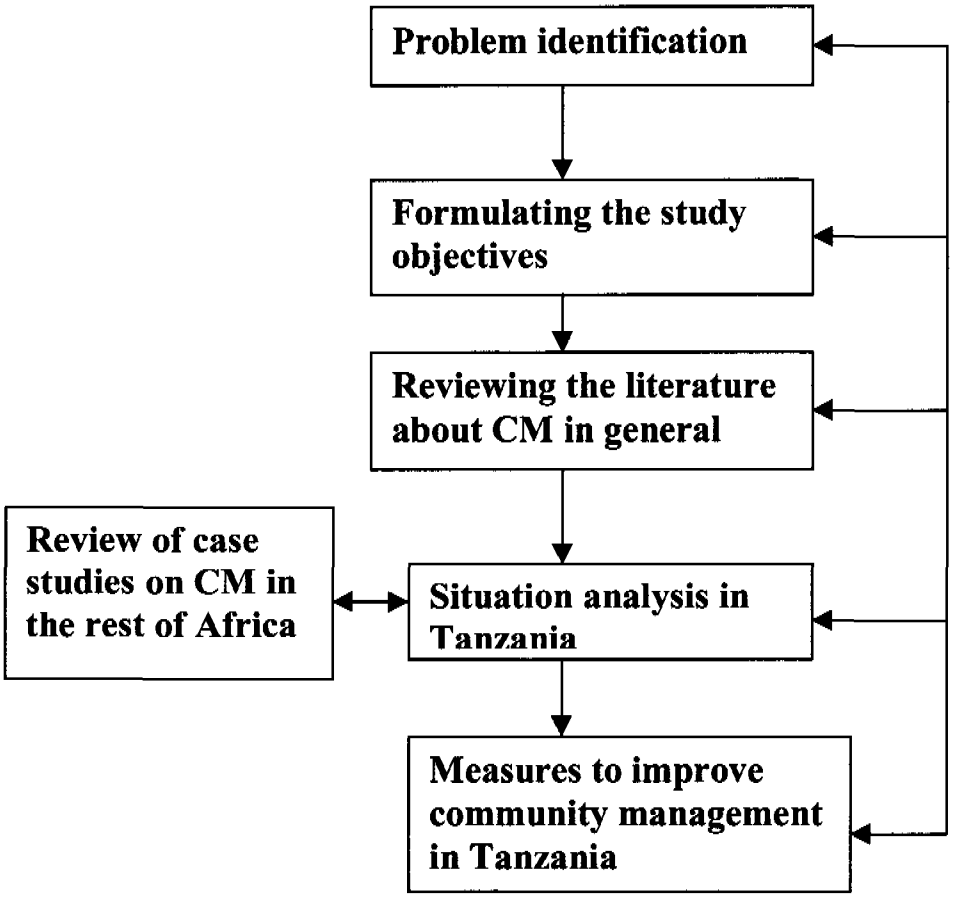
Poor Water Supplies and Sanitation services in Tanzania continue to be a critical problem in rural areas of Tanzania despite considerable effort to improve and expand access. The overall objective of carrying out this study was to identify and suggest measures to ensure sustainability of Water Supplies and Sanitation services in rural Tanzania through experiences of other countries. The study indicated that that community management is the best option to be practised in rural areas of Tanzania to improve access to safe drinking water and improve sanitation facilities.

Recommendation given to ensure sustainability of Water Supplies Sanitation projects is that government should play a facilitative role by creating enabling environment including policy, legislative, capacity building, education and awareness campaigns for different partners to support community management.

Abbreviations and Acronyms

CM	Community Management
DANIDA	Danish International Development Assistance
DGIS	Directorate General for International Co-operation
ESAs	External Supporting Agencies
FINNIDA	Finnish International Development Agency
GOM	Government of Malawi
IDWSSD	International Drinking Water Supply and Sanitation Decade
IRC	International Water and sanitation Centre
HESAWA	Health through Sanitation and water Programme
MCDWAC	Ministry of Community Development Women Affairs and Children
MOH	Ministry of Health
MOJ	Ministry of Justice
MOLG	Ministry of Local Government
MOW	Ministry of Water
MOWE&M	Ministry of Water Energy and Minerals
NGOs	Non-Governmental Organisations
O & M	Operation and maintenance
PICU	Project Implementation Co-ordination Unit
RWMP	Regional Water Master Plans
RWS	Rural Water Supply
SIDA	Swedish International Development Authority
UNDP	United Nations Development Programme
URT	United Republic of Tanzania
UNICEF	United Nations Children's Fund
WS&S	Water Supplies and Sanitation
WSSCC	Water Supplies and Sanitation Collaborative Council
VWC	Village Water Committee
WB	World Bank
WHO	World Health Organisation

STUDY METHODOLOGY
Conceptual Framework



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Chapter 1: INTRODUCTION

1.1 General

Safe water supplies and sanitary disposal of wastes are essential components of primary health care and provide the basis for economic and social advancement. In Africa, the provision of safe, clean water and proper sanitation is still inadequate. About 37 per cent of Africa's rural population had access to water supply and sanitation by 1994 (WHO, WSCC & UNICEF, 1996). Similarly, there is loss in rural Africa productivity, as 40,000 Million hours are lost each year on collection of unsafe water (UNICEF & GOM, 1997). The consequences of using unclean and unsafe water are universally known – waterborne, water- based and water washed diseases that kill thousands of children everyday. The rural poor are the most vulnerable (Sendama & Mbuthia, 1991)

The United Nations Decade for Water (1980- 1990) aimed at providing safe drinking water to about 414 Million people in Africa. However, by the end of the Decade, this goal was declared unattainable by most project implementers, mainly because management at the lowest appropriate level and women as key players in management and safeguarding the water facilities were not considered (Sendama & Mbuthia, 1991).

Other factors aggravated the aforementioned problems are: financial constraints in public sector, poor operation and maintenance for completed scheme lack of cost recovery and focus on complex technologies. Additionally it is because of malfunctioning of systems and lack of effective co-ordination and collaboration of Non-Governmental Organisations (NGOs) and External Supporting Agencies (ESAs) in Water Supplies and Sanitation (WS&S) programmes in most developing countries (Sendama & Mbuthia, 1991, IRC, 1993 and Mambali, 1993).

With the poor economies of developing countries and unreliable donor support, there is a growing trend to encourage rural communities to manage their own WS&S schemes. Governments are also trying to change their role from 'provider' to 'facilitator' and promote greater community involvement in decision making and management (World Bank, 1997).

One way of achieving this is to encourage community management. This study gives an overview of Community management, sustainability, roles of partners, experiences in WS&S in rural areas of Tanzania and other countries and indicates the measures need to be taken to promote sustainability of rural WS&S projects.

1.2 Problem Identification

Tanzania has an area of 937,062 Km ^{2}, a population of about 30 Million people and a GNP per capita of US$ 170 (1996). Most of Tanzania's population lives in rural areas, with only 25 percent of population living in urban areas (World Bank, 1997, 1998).

Development of Rural Water supplies has always been a priority in Tanzania. In 1970 the Government of Tanzania proclaimed a twenty-year rural water supply programme (1971-1991). Part of the programme coincided with International Drinking Water Supply and Sanitation Decade (IDWSSD). The objective of the former was to enable over 90% of the population of Tanzania to have access to clean and safe water within a distance of 400 metres from the households. At the end of the programme, about 46 % (URT, 1995: Annex I) of the total population living in rural areas of Tanzania mainland had easy access to water supply). It was assumed that resources would be available to construct new schemes and rehabilitate or continue to operate and maintain existing ones. The question of sustainability was a far-fetched idea and thus water schemes were breaking down fast as they were built (Njau, 1993).

Despite the best endeavour of the central government to provide safe and clean water with staffs to supervise the operations for WS&SS infrastructure, malfunctioning of many completed schemes and dissatisfied consumers was clearly pronounced (Mambali, 1993).

In Tanzania, about 84% of rural households are having latrines near their homes. The high level of sanitation coverage is as a result of extensive latrinization programs implemented during IDWSSD (Mtulia, 1999). Concerning the health impacts, it is estimated that about 68% of rural dwellers obtain their water from traditional sources which are mostly contaminated and pose health risks with high incidence of water borne diseases such as diarrhoea and cholera (URT, 1995).

In 1972, Tanzania introduced a decentralisation policy in 1972, aimed at bringing closer to the people the decision-making organs of the government. Later on in 1974-76, government introduced villagisation programme, where villagers were then called upon to contribute towards construction of water supplies schemes through self-help. The idea was not taken serious as villagers had a notion that those services are to be provided by the Government and not otherwise.

In 1980's Regional Water Master Plans (RWMP) were initiated with the emphasis on construction of new schemes in rural areas. A number of bilateral donors were involved in the preparation of 12 RWMP out of 24 expected. Initially rapid construction of large scale water schemes occurred, but later on in the 1990's the approach changed to include strengthening of maintenance, involvement of communities not only as voluntary labour, but as owners of completed schemes, and to create sustainability (World Bank, 1997).

The change from free labour to community- managed water systems implies that project implementation staff must from the start approach and work with the community as future managers of WS&S programmes. However, this was not the case because the review done by IRC (1993) in Tanzania RWS programmes, indicates that most of the project staff have not acquired the required values, attitudes and skills to work as partners with villagers. Training and working with communities was still in top-down manner, this resulted into failure of a number of schemes. Furthermore, it was noted that grassroots organisations in WS&S have significant disadvantages including isolation from each other, insufficient access to financial and technical resources and insufficient political influence.

Joint Ministries recommendation on Community management in WS&S schemes (URT, Workshop report, 1993) indicates that despite the achievements made in twenty years of RWS programmes, there are still a number of problems. These include:

- Use of complex technology in some rural areas, which are not sustainable and ignored the traditional and simple technologies.
- Current means of obtaining water in rural areas are unreliable during dry season especially in drought stricken areas women spend long periods of time walking long distances searching for water.
- It is estimated that about 40% of water schemes are not operating due to old age and breakdown of pumps, lack of tools for repairs, spare parts, fuel or electricity required to run the water pumps. This has necessitated pipes to run dry for quite long in some villages.
- In marginal areas with low population densities and often water scarcity, very few institutions are willingly to develop water schemes due to high cost incurred.
- Resistance by government technocrats and bureaucrats who feel the move to community management is the threat in their functions, source of earning and power.
- Formulation and institutionalisation of processes and procedures for community management are not yet fully developed, despite the fact that it is a recommended approach in the Water policy.
- Where Communities have been involved in management of WS&S schemes, the training that is provided to the attendants and other community cadres to improve their management capacity is inadequate.

1.3 Objectives

In view of the problems identified above the following objectives will be pursued in this study:

- To review the literature about community management
- To study the situation of community management in rural water and sanitation in Tanzania
- To assess how community management has worked in some countries in Africa
- To suggest measures for improving access to safe WS&S service delivery in rural areas of Tanzania, through sustainable community management.

Chapter 2: COMMUNITY MANAGEMENT & SUSTAINABILITY

2.1 Definitions and Basic concepts

In order to understand the concept of Community management (CM), the following related terms are defined first:

The Community is a group of people with common interests in the system, such as using the same water supply system (IRC, 1993). Other definitions given for the community include:

- A group of people living in a particular area or place and can be defined by its ethnical or tribal base, language and religion.
- A group of people with diverse character sharing common interest to develop and sustain life. It may include, rich and poor, peasants versus cattle raisers, men and women, people using water for different purposes, polluters and non-polluters, highly educated and low educated, to mention but few (IRC, 1993).

Management entails:

- Planning, which involves development of a strategy, objectives, results to be reached, with what resource are and in what time.
- Organisation, this involves the distribution of responsibilities and tasks.
- Decision-making, taking decisions on regular activities, as mandated.
- Co-ordination is harmonisation of contacts between various actors and communication.
- Control, this involves supervision and enforcement.
- Monitoring, this involves regular check and problem solving (Franceys, 1999).

A sustainable development programme is one, which is able to deliver appropriate level of benefits for extended time period after major financial, managerial, (social), technical assistance from an (external) donor is, terminated. Basic water and sanitation and hygiene services that are developed as part of sustainable development are thus not dependent on continued external support for their ongoing service delivery and use. Rather the services are developed and established in such away they meet demands of users while addressing the five components of sustainability (see table 1) (Wijk & Francis, 1997).

Community management means that the beneficiaries of water supply and sanitation services have responsibilities, authority and control over development of services. If the community has at least a strong influence in the development of its water and sanitation system, because of its authority and responsibility for operation and maintenance; then it will be more effective and efficient, leading to improve sustainability (McCommon et al, 1990).

Community's partners in the management of WS&S are government agencies, NGO's, ESAs, religious groups and private sector. A community's relationship with its partners will change as it develops capacity to manage its own affairs, and to choose for itself where to acquire the support services it needs to keep its WS&S system functioning reliably.

(Brikké, 1999) categorised management in three aspects: social management (all aspects linked to the organisation of the community), technical management (all aspects linked to O&M technical activities) and Financial management (accounting, tariff setting and all O&M cost recovery).

For community management to work effectively it needs strong government support, to operate within the legal and administrative framework that encourages their operations. At least in the initial stages, need access to timely technical backup, training and information support.

In cases where the Community management is well organised, it can delegate some of its activities to the private sector such as, manufacture and supply of repair, equipment and component used in WS&S schemes (World bank, 1997).

Table 1:Community Management and Sustainability

Components of Sustainability	Role of Government	Role of the Community
Technical	• Provision of different options, appropriate & affordable technologies on WS&S. • Provision of spare parts, it can delegate the role to private sector. • Ensure training in O&M and Construction aspect.	Involvement in the choice of technology + design and level of service. Ability to purchase the spare parts. Carry out O&M.
Social	• Community mobilisation • Co-ordinate stakeholders in WS&S • Promote demand-responsive & gender sensitive approaches. • Ensure training in: Hygiene Education & Management aspect.	Benefits of WS&S perceived by users Users making the organisation & managerial effort to sustain.
Financial	• Provision of information related to economic cost per capita for WS&S, capital investment in O&M costs. • Capacity building on mobilisation of financial resources & management. • Mobilising financial resources for big projects.	Demand for WS&S. Willing and prepared to pay. Management of financial resources. Users involved in O&M.
Environmental	• Promote protection of water sources through education & awareness campaigns. • Promote integrated Water resources management. • Empowerment of community to establish by-laws for water sources management.	Involved in Education & awareness campaigns. Stakeholder in Water resources management Establish by-laws to protect the water sources in the community.
Institutional	• Promote WS&S management at the lowest appropriate level through policy & legal framework. • Promote partnership among stakeholders. • Capacity building in Community management for both government staffs & Communities. • Organisational strengthening	Formulate their problems & priorities. Stakeholder Planning & Management of WS&S schemes.

Source: Wijk & Francis, 1997.

2.2 The importance of community management

Much of the impetus for movement toward Community management (CM) derives from the observation that public funds are inadequate thus the Water Supplies and Sanitation Services (WS&SS) have not been extended to the rural areas as it used to be in the past. This therefore, calls for Community initiatives in provision of the WS&S. the advantages of CM include:

- More services will be accomplished;
- Services can be provided more cheaply;
- Encourages a sense of responsibility and ownership;
- Increased commitment to improve the situation;
- Improvement of willingness to pay
- Uses valuable indigenous knowledge;
- Encourage technical and administrative flexibility;
- Have control of small and medium projects;
- Improved reliability and sustainability and
- It is catalyst to development.

Similarly it should be noted that CM in WS&S could only work if the following exist:

- Involvement of the community right from the start;
- Government policy framework and legislation to permit and support;
- There should be demand for improved system;
- Effective external support such as, capacity building, awareness campaigns to understand their responsibility and tasks;
- Information about system options must be available to the community;
- Community must be empowered to make decision and control the system;
- Community must be willing to invest in capital and recurrent cost.

The summaries above on are based from different authors (McCommon et al, 1990, Sendama & Mbuthia, 1991 and WHO, 1996).

2.3 The roles of partners

Appleton & Evans (1993) suggest the following partners and their roles:

- **Community**; User community in WS&S will be involved fully in planning, decision making process, physical implementation, cost sharing and in O&M.
- **Other communities**; Success in one community can stimulate neighbouring communities to follow suit. Sharing of knowledge and pooling resources could bring faster and most cost effective implementation and play vital role in long-term sustainability.

- **NGOs;** Non-governmental Organisations (NGOs) often have strong capacity for facilitating community –centred development and make natural partners in CM activities. As long as conflicting interests do not create an adversarial relationship, they can help to increase the outreach capacity of government and donors in the provision of community WS&S.
- **The Private sector;** This is a formal or informal group of companies or individuals with role in the provision of goods and service. In WS&S projects it is vital in tool procurement, local production and distribution of spare parts, so long government creates enabling environment for them.
- **External Supporting Agencies;** These are aimed at providing sustainable services in WS&S, as determined by the government policy.
- **The Government**; The government set policy, supporting legislation, prepares economic plans and is a caretaker of public resources, thus promote and facilitate the implementation of WS&S projects in the community.

2.4 From Supply driven to demand responsive approach

2.4.1 Planning and Management

Before any WS&S scheme is established pre-planning should be done. Pre-planning involves assessing water resources, for the present and future needs. Initial judgements on options for technology types, level of service and communities' capacities to implement and sustain new supplies are made in liaison with communities themselves. Costs are assessed and timetables are established. Pre-planning is also time for actively promoting community involvement in all aspects of the programme and introducing discussion on hygiene education and sanitation improvement in sample communities (IRC, 1988).

Involving communities in decision making takes time and money in the early stages, therefore, Supporting agencies should guide the community to select enough people for skills training and establishment of formal management bodies such as water committees or associations to facilitate implementation of WS&S programmes.

Government has a vital role in promoting sustainable WS&S development approach (demand-responsive approach) as shown in Figure 1. The demand–responsive approach involves sharing the responsibilities between different partners in Community management in O&M and management of WS&S projects. Projects are implemented based on demand emerging from communities and capacity build by different partners to respond to the demand (Brikké, 1999).

The community management can also vary according to different circumstances, such as water scarcity and population density. In communities where water is readily available and the people are densely settled, set of rules and responsibilities for managing WS&S are more flexible. Whereas, communities which are densely populated and with water scarcity, usually have strict rules governing individual rights and responsibilities and impose penalties for violators (WHO, 1996).

2.4.2 Design and Construction

Technical staff from government or ESAs should make the technical design of WS&S facilities with the involvement of the community. Women as users and managers of traditional water sources, their knowledge is useful in project design. They can select the right location and reliable water sources (Wijk & Francis, 1997). The community can also provide information on water use; this helps designers to come up with correct size of different components of WS&S facilities.

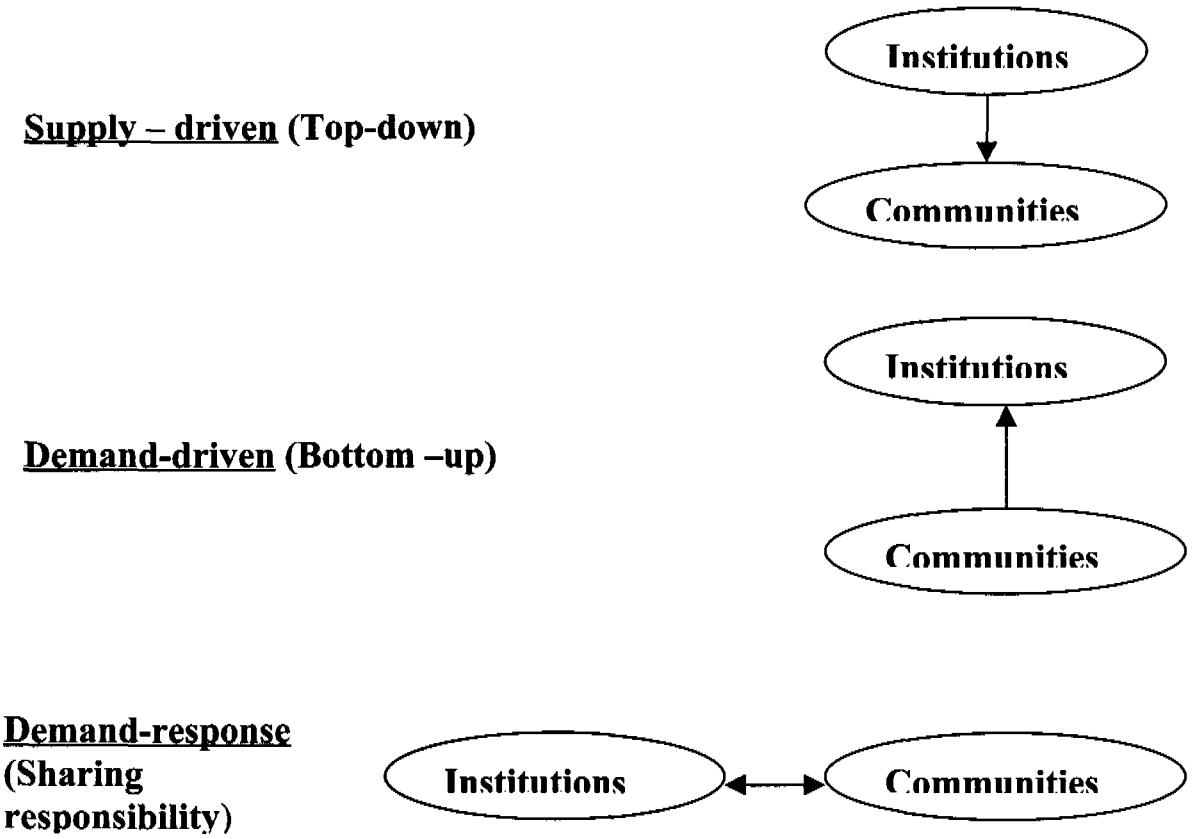

Figure I: Approaches in Community Management

(Source: IHE-SUM lecture notes, 1999)

Construction is the phase in which the community WS&S take physical participation. Community can participate in different forms, for example contribute labour, skills, cash and materials for construction. The timing of construction period is determined by the community to avoid conflicts with other socio-economic activities.

2.4.3 Operation and maintenance

The community is a focal point in the management of rural WSS systems because it has vested interest in efficient operation and maintenance. The control of water supply sources and waste disposal sites is part of the community responsibility, since all communities have some type of WS&S facilities, however primitive this might be.

For effective O&M of WS&S schemes, suitable, user friendly technology and the capacity of local communities to maintain their systems are essential. The training will be based on the technology involved, these can range from simple caretaker skills to repair skills for sophisticated machinery. Since, women are primarily responsible for obtaining and using water; they should be involved in basic training in facility O&M to ensure sustainability (WHO, 1996).

2.4.4 Monitoring and Evaluation

Joint involvement of project staff and community representatives in monitoring and evaluation of water systems operations, hygiene conditions and local sanitation practices can improve community performance and indicate where support from the agency is still required (IRC, 1991). Evaluation also helps to assess the functioning and use of the system in order to design correction measures (IHE-SUM project management lecture notes, 1999).

Chapter 3: COMMUNITY MANAGEMENT IN TANZANIA

3.1 Policy and legal aspects

The Water policy of United Republic of Tanzania of 1991, aimed at providing clean and safe water for all by year 2002. It put an end to the "free water era" by introducing the principles of cost sharing in rural areas. In rural areas, village governments, through their relevant committees were given the responsibility to run small Water Supplies systems while management of larger systems remained responsibility of Ministry of Water. However, the revision of legislation to allow community groups assume ownership of Water Supplies is lacking (WB, 1997).

The major objectives of Water Policy include:

a) To bring about equality and socio-economic development by supplying adequate and safe water supply for different uses to the benefit of all the citizens.
b) Investigating, developing and protecting the water sources so as to ensure availability of water all the times.
c) To develop and strengthen the local capability so as to minimise donor dependence by emphasising on training and use of local staff, innovation, malfunctioning and use of available local resources.

Cabinet amended portions of policy in 1995 to allow establishment of autonomous bodies to take charge of O&M of large Water Supplies Schemes.

3.2 Decentralisation of Water Sector

The water sector management in Tanzania operates in a decentralised system. The responsibilities of Central government and village level where most communities reside are highlighted below:

At Central government, the Ministry responsible for Water is the overall in-charge of all matters pertaining to operation and maintenance of water supply schemes projects by preparing guidelines on operation and maintenance of water projects by preparing guidelines on operation and maintenance of water projects in the country. In addition, the Ministry is responsible for: provision of technical advice and finance maintenance of large scale water projects, co-ordinate availability and distribution of construction equipment, spares and plants and strengthen the Regional and District workshops.

At village level, village government has to meet operation and maintenance costs of small schemes that are already completed and handed over to them by government or External supporting agencies. In addition, the villages are responsible for; establishing water committees and a village water fund, the village collaborates with District Water Engineer's office on issues pertaining to maintenance of village water schemes. Under no circumstances is the village government permitted to make any alterations on the water projects without prior permission of the Central government albeit the fact that the water project being the property of the village (PICU, 1995).

3.3 Gender

Gender refers to the roles and responsibilities of women and men that are socially determined. It is related to how we are perceived and expected to think and to act as women and men because of the society organisation and not because of biological differences. Roles and responsibilities refer to different work that men and women do, their different needs, access to resources and areas in which they can make decisions and exercise control over resources and benefits (Wijk & Francis, 1997). However, the roles and responsibilities are socially and culturally determined and may differ from country to country.

IRC (1993) review study on WS&S donor funded projects in Tanzania indicated that women receive much trust in finance handling while men are usually keen to take up maintenance and management positions. Furthermore, manuals for community participation are mostly not gender-specific and do not indicate how these constraints could be overcome.

Similarly, in Tanzania Davis (1996) 'indicated that the existence of gender policy statements in government, ESAs and NGOs does not guarantee full participation of women in implementation phase of project or equal share in project benefits. A general experience in FINNIDA, SIDA funded project is that women participation in decision making, implementation of the WS&S programmes is limited because in some communities, the gender aspects are not well explained. In SIDA funded projects, women participation did not work satisfactory due to cultural factors, which discourage women from public engagements'.

The government has a facilitating role in mainstreaming gender issue through capacity building to Extension staff and NGOs to ensure optimum use of water supply services. The functioning and use of WS&S system depend on how well man and woman have been involved at the community project planning stage. It is therefore of paramount importance that the planners have gender awareness for effective and sustainable use of services to promote public health.

3.4 Stakeholders participation

The institutional responsibilities for Water Supplies, Sanitation, health, community management are under the MOW, MOH and MCDWAC respectively. Despite the recent efforts to co-ordinate the activities of the above different stakeholders, they are still working in isolation. As a result community management is still weak in this respect (Personal communication, 1999).

3.5 Technology option

As mentioned earlier, the technology choice was based on supply driven approach. As result there are no spare parts, technical repair skills, etc at the local level. At present most of the system is broken down because of the technology complexity.

In sanitation aspect, most rural communities use tradition pit latrines and to some extent ventilated improved pit latrines (VIP) but there are few rural rich families who use pour flush latrines, especially in areas with abundant water supply. The management of this sanitation is on household level but public campaigns are required to raise hygiene awareness (Mtulia, 1999).

3.6 Private sector

In rural areas where ability to pay is high, autonomous bodies have been formed such as Kiliwater Company in Northern part of Tanzania, which handles O&M of large rural water scheme. It is a publicly owned company with full autonomy in the rural water supply sector (World Bank, 1997).

Concerning procurement and spare parts distribution, the government has failed to establish a network of spare parts distribution. In an attempt to address the situation the government has facilitated the privately owned Hand Pump Company to distribute the spare parts in some regions. Similarly, the ESAs have been encouraged to converge on the use of locally produced hand pumps.

Chapter 4: EXPERIENCES IN OTHER COUNTRIES

4.1 Togo Case study

Togo established Togo Rural water and Sanitation Project in 1980's, with the integration of health education and community participation in water and sanitation programmes. It is estimated that 25 percent of total project budget was spent on training and extension. Training was conducted in three phases: First phase involved the government extension staff, the second, trained village development committees these in turn trained others in the community in the third phase. The specific training programs such as, management, O&M, sanitation and health education were set up in each community project for committee members, selected Artisans and women group.

Ministry of Public Health and Social Affairs through a team of social affairs agent and a sanitary expert promoted the program. Each team was assigned to twenty villages, each village was visited once each month. The extension teams provided field training and supervision for Village Development committees and village volunteers. They also participated in planning activities with villagers and development of educational materials. Before construction of any WS&S facilities, the entire year is devoted to promotional work in each village. Project sustainability was achieved due to established locally managed maintenance fund, making available mobile regional repair teams from Ministry of Water, health education and extensive appropriate training to the extension staff, management committee, village Water facilities caretaker, repair artisans and involving women from the beginning of the project.

Over a period of seven years the Project managed to provide potable water for boreholes, springs, and rainwater systems to 600,000 people in 864 villages (McCommon et al., 1990).

4.2 Lesotho Case study

In the past decade, the majority of children of Lesotho suffered from diarrhoea diseases spread by contaminated water. There was no effective method of sanitation in most communities and the local citizens accepted this as a way of life.

In 1983, a Technical Advisory Group was set up to introduce sanitation into a rural water project with financial support from UNDP and UNICEF.

Over the course of a year, the Group familiarises to the local people and used their input to design and builds the equipment. Sanitation 'messages' were integrated into primary health education, taking into account the local customs.

Men and women from villages were trained as latrine builders and maintenance workers. Many of them are also trained as health workers. The work helps them to earn their living and has raised their status and self-confidence. The female masons are also more ready to build for lower income households at a lower profit.

Today there is much success in the project, District sanitation teams, supported by 4,000 village-based health workers, use home visits and community meetings to talk through-and solve-any problems with the system. The threats of childhood diseases have being minimised (IRC, 1995, No.1, A developing Crisis and Wijk & Francis, 1997).

4.3 Kenya Case study

The role of community management in the Maturu-Luandeti gravity project. The scheme's coverage area has a population of 4,201 people and growth rate of 3.3 percent per annum. The health situation in this area is lower than the national average, with a child mortality rate of 87 per 1000 and a life expectancy of 54 to 60 years. Water-related diseases in this area include diarrhoea, skin infections, dysentery and hookworm.

Springs are the major traditional sources of water in the area. Currently about 60 springs have been proposed for protection. The region has a high rainfall. Before the project was implemented the community collected water from springs and rivers in the area. Due to population increase and agricultural activities these sources are polluted. The absence of latrines and people defecating in the bushes also contributes to pollution of water sources.

In 1986, on special request of local leaders and Friends School Lukhokho, the Kenya Finland Western Water Supply Programme (KFWWSP) was asked to construct a water supply system. The approach used for this project was supply-driven, whereby the programme did all the construction work. The community was not involved in identification of needs, planning and installation of water supply. In 1992 the project was handed over the community to use, operate and maintain. After one year, community members asked to do some extension, men with little participation of women did the work.

The approach used caused a lot of problems as the community thought the water was free and the programme will continue to pay the running cost. When the water management was established and rates were set, many households opted to go back to traditional sources, which are polluted and contaminated (IRC, 1997).

4.4 South Africa Case study

The Mvula trust has been established in South Africa in past five years, with the central objective of promoting sustainable water and sanitation services for unserved rural communities. It has gained much experience in the implementation of water supply and sanitation projects based on Demand Responsive Approach (DRA) principles. At 1998 International Community WS&S conference in Washington DC, earmarked Mvula as one of internationally best-practised case studies.

The core principles of DRA are:

- Water should be managed as an economic as well as a social good.
- Management should focus at lowest appropriate level
- The role of women in the management of water is important.

Based on these principles the key characteristics of DRA include:

- The community initiates and makes informed choices on service options based on their willingness to pay, and acceptance of responsibilities for O&M
- The community contributes to investment costs relative to the level of service and has control on management of funds.
- Communities can choose how goods and services are delivered and how water and sanitation are managed.
- Government has a facilitative role, set policies, strategies, legal framework and creating enabling environment for communities.
- The community owns and is responsible for sustaining its facilities.
- Community capacity is appropriately strengthened.
- Innovation is promoted.

DRA focuses on giving communities the responsibility for making choice on Water Supplies and Sanitation system and decision on O&M, thus more sustainable approach. This therefore applicable to most developing countries as long as there is political will on those governments (Rall, 1999).

4.5 Lessons Learned

Successful Community management is preceded by a number factors. It is necessary that the project and programmes in WS&S systematically create the right conditions in which community –based approach can work sustainably. Experiences in Togo, Lesotho, South Africa and Kenya indicate the following:

- Integration of several components in community management; extensive health education, community capacity building in WS&S management, formation of water committees after completion of water scheme, and involvement of local artisans and women in the whole project cycle. The sustainability for this system will be realised through improved cost recovery and commitment to O&M.
- Integration of locally developed sanitation messages into primary health education campaigns and capacity building of local mason with gender consideration can improve the sanitation and health status in developing countries.
- The use of demand responsive approach in provision of WS&S services ensures more responsibility in the community system on choice, willingness to pay, commitment on O&M thus increasing more access to WS&S services to the unserved rural communities.
- Application of supply driven approach in the community WS programme has proved a failure. It has given rise to complex technology, low willingness to pay, low cost recovery and low willingness to participate in O&M.

Chapter 5: MEASURES FOR SUSTAINABLE COMMUNITY MANAGEMENT

New approaches in Community management programmes in WS&S have been tried out in Tanzania by a number of NGOs and ESAs, such as HESAWA programme supported by NORAD, DANIDA, DGIS, FINNIDA & NORAD. However, the following measures need to be addressed based on experiences from different countries, to ensure sustainability of the provision of services. These include: re-defining the role of the main stakeholders and facilitating role of government, NGOs and ESAs, policy measures and legal aspects, financial management, education and public awareness.

5.1 Re-defining the role of stakeholders

The main stakeholders in WS&S programmes in Tanzania are:

Community, Ministry of Water, Ministry of Health, Ministry of Community Development Women and Children, Ministry of Justice, Ministry of Local Government, Bilateral Donors, NGOs and Religious groups. Because of the existing problems highlighted before, the role of each actor facilitating rural WS&S is proposed as shown in annex II.

5.2 Government, NGOs and donor facilitating roles

Ideally if sustainability is required, community project should be initiated when communities have defined their own priorities. Pseudo-participation should be discouraged. In genuine mobilisations process, facilitators and trainers from outside act as catalysts and help the community to analyse problems and help set up possible solutions for their benefit.

A number of countries have implemented decentralisation policies, which have direct impact to the water and sanitation sector. The major rationale for implementing decentralisation process is to enhance greater efficiency, effectiveness and sustainability of public services. It is based on assumption that the Communities are well prepared to respond better to the needs of the population in their areas. Figure II illustrates a schematic way of reducing government direct involvement in the running of WS&S in communities thereby enhancing autonomy. Tanzania can adapt decentralisation according to that illustration. Further measures include:

- Changing the role of government institutions from providers of services to co-ordinator and facilitator in planning, management, development of a new O&M system and monitor the success and respond to problems encountered.
- Promoting participation of NGOs, Religious groups, ESAs in WS&S in a co-ordinated manner.
- Promote appropriate technology in WS&S. Communities to adopt appropriate technologies to solve the existing problems. The technology should tailored to the local capacities of the communities to enable easy O&M.
- Building the capacity of communities on technical, financial and managerial terms, while taking gender perspective into consideration.

- Government should ensure availability of spare parts in the communities as they facilitate the community to build the capacity to handle O&M themselves.
- Approaches in development of WS&S should be changed from supply-driven to demand responsive approach.

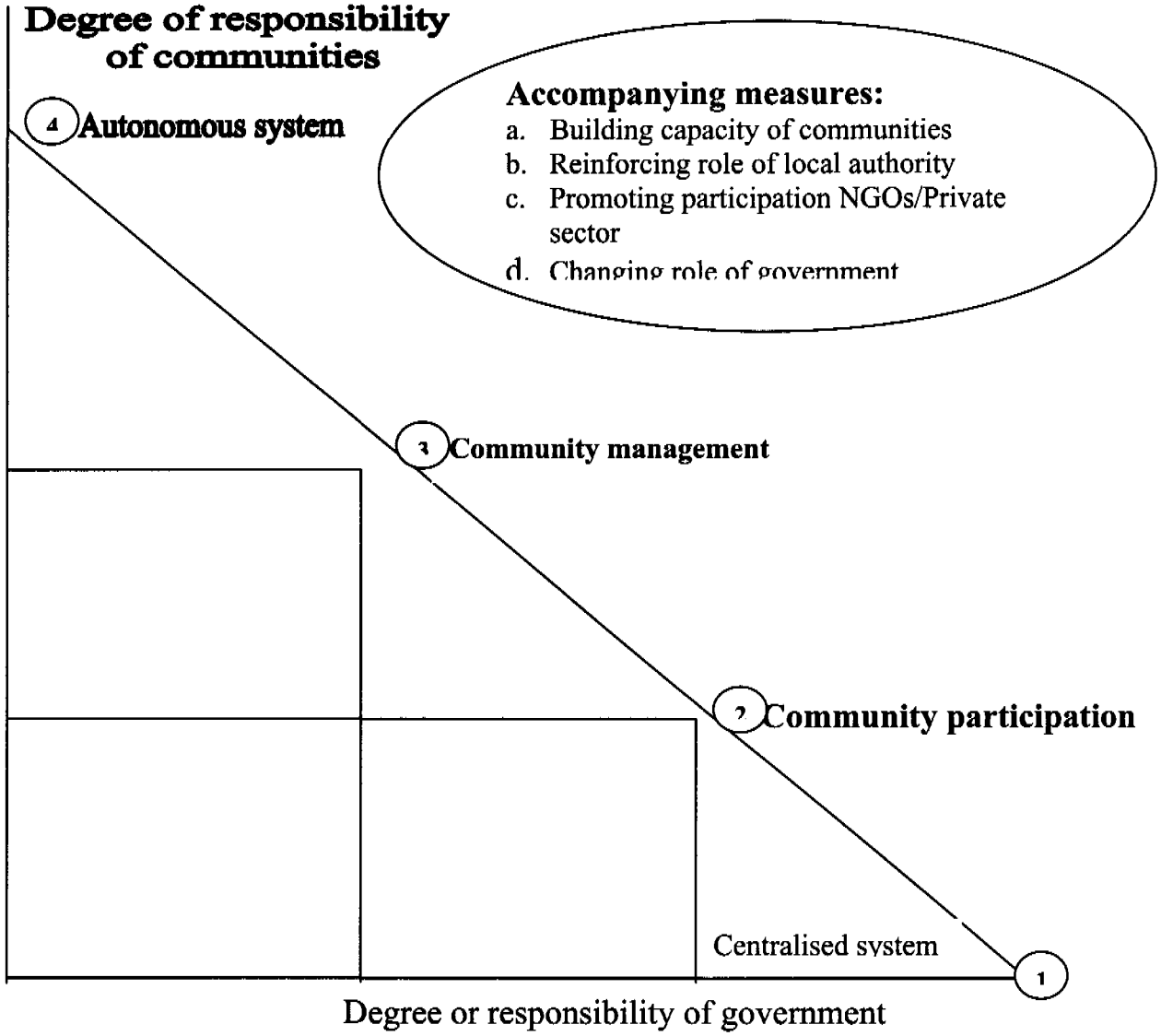

Figure II: Degree of Responsibility of Communities and Accompanying Government Measures.

Source: FranÇois Brikké, 1999.

5.3 Policy measures and legal aspects

In order to establish an enabling environment, in which community management can flourish, government needs to introduce substantial policy changes in the following:

- **Planning and decision making.** The community should make planning and decision making of appropriate technologies to the small and medium WS&S schemes. In large scales the community can be represented to promote its acceptance.
- **Legislation.** Government should put an appropriate legal framework to enable the community to run WS&S systems effectively.
- **The support system.** The role of government, NGOs and ESAs should be clearly stated in the water policy to ensure equitable service provision. This will ensure that the WS&S services also cover marginal areas.

5.4 Financial management

In order to ensure cost recovery in WS&S schemes, the communities should be informed just at the outset of the scheme, either by government or ESAs, what their commitments are so that the can decide how to manage the financial aspects of the system.

Government support should be seen as supplementary to community resources, to ensure more responsibility in the community. Similarly, the donor support should compliment community initiatives. In areas where resources are lacking like in marginal areas, it is a government concern to satisfy the basic needs of the disadvantaged segments of the population, by providing subsidised services for such groups. Higher priority for social services in government policies is essential to ensure that marginal areas are provided with water supply services. Otherwise with recent situation where there is meagre budget allocation to the sector, such areas will continue to suffer.

The government as the facilitator should provide basic financial management techniques to the community in order to enable them to manage their own funds. This will ensure that funds are put to the right use thereby promoting accountability.

5.5 Gender

WS&S programme and planners have come to realise that equitable gender participation is essential throughout the project cycle. It permits men and women to consider a range of options and their consequences, for example, to choose technologies, designs, maintenance, management and financing systems that best fit their needs and are affordable by the community. A gender balance is needed since neither the service nor other developments associated with them in the community can be sustainable when part of it is not involved in decision or overburdened.

5.6 Education and public awareness

Retraining of personnel along with new job descriptions within the government institutions are required to enable them to facilitate the community management approach in WS&S programmes.

Community management is not self-starting; it has to be encouraged. To be effective, it also requires that the communities involved are made aware of benefits they will achieve, and equipped for roles they will be required to undertake. New attitudes and behaviour within communities are often necessary to promote the effective use of water, to stimulate demand for sanitation. Within communities, women play a vital role in promoting improved hygiene behaviour. Women are thus important targets for information campaigns and key agents of change.

Chapter 6: CONCLUSION AND RECOMMENDATIONS

Community management is an appealing solution to the current sustainability problems rural communities is experiencing with WS&S services. With experience from other countries, community management appears to have the potential to reduce the high rates of non-use, breakdown and misuse that have plagued new systems in Tanzania. With expected improved cost recovery, it is anticipated that coverage may increase. However, in order for government to support future community managed WS&S projects the following recommendations are made:

- **The government should have facilitative role in Community management** (CM), set appropriate strategies and create enabling environment (including legislative measures, capacity building to extension staff and communities).
- **Change of attitudes.** Achieving higher levels of CM requires painful changes within WS&S supporting agencies, greater flexibility; as well as within the community, change from free labour dilemma to community- based approach.
- **Water and sanitation for all.** Marginal groups, such as dispersed populations and people in low-income rural areas, which are often, excluded in WS&S programmes supported by ESAs and NGOs. Government should take vital role to serve these groups.
- **Wider coverage of WS&S.** Communities should be assisted to make and implement reasoned decisions on an acceptable and affordable type of system, the right location which is not gender biased, appropriate local system O&M and financing mechanisms.
- **Incentive to Government cadres.** Government cadres involved in O&M of Water schemes should be motivated to provide technical, financial and administrative support necessary for development of sustainable Community management
- **Move from a supply-driven to demand-responsive approach.** The latter is more flexible and appropriate in solving WS&S problems in rural areas because it put emphasis on dialogue with the community.
- **Clear defining roles and responsibilities of all actors.** The WS&S programmes involves different actors, for efficient management the roles and responsibilities of each should be known and co-ordination done by the Ministry of Water.
- **Effective management of sanitation services.** Wide ranges of potential options for sanitation facilities will enable users decide which are most appropriate and affordable. Similarly, integrating of key components, particularly proper water supplies, sanitation and hygiene education will be crucial.
- **Gender approach.** ESAs and NGOS should have adequately developed gender approach to allow equitable distribution of roles and responsibilities and benefit between men and women.
- **Involvement of Community in WS&S.** Communities that are involved from the beginning of the project in planning and decision making, have a stronger feeling of ownership of the constructed facilities and therefore more willing to take up management responsibilities.
- **Private sector involvement.** Procurement should be decentralised with private sector playing a leading role in supply and distribution of spare parts.

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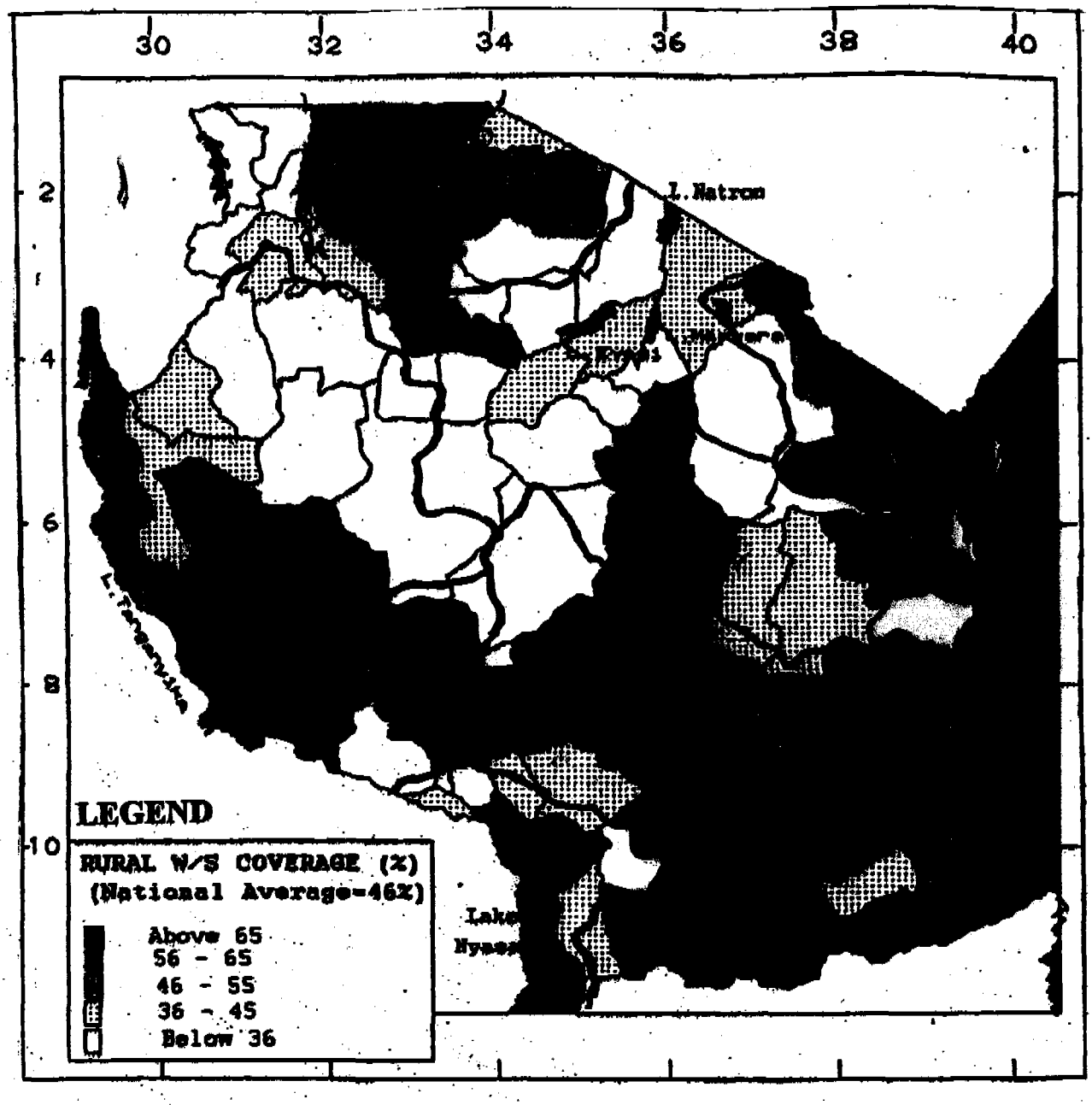
Annex I



The Map indicates Rural Water Supply coverage in Tanzania

Source: URT, Ministry of Water, Energy and Minerals, 1995

Annex II

Facilitating role of different actors in Water supplies and sanitation programmes in Tanzania

Actor	Aspect	Issue	Responsibilities
MOW in collaboration with MOI & T	Technical	Appropriate Technology	Present different technological options and allow communities to participate in choice of appropriate technology.
	Institutions	Roles and responsibilities of various actors in WS & SP.	Co-ordinate the WS & SP done by ESAs, Religious groups & NGOs.
		Local authorities organisation	Supervise the establishment of Water committees to manage village water schemes and accorded legal status.
MOW MCDWAC	Financial Management	Management of large schemes supplying water to rural areas.	Capacity building on District staffs on setting reasonable tariffs and introducing efficient way of collecting money from customers for the services provided.
MOW MCDWAC ESAs, Religious groups NGOs	Financial Management	Capital cost, O&M costs	Cost should be indicated during planning (construction, O & M).
		O&M	a) Village should establish realistic village water funds to suffice O&M requirements and b) Proper means & ways of managing village water funds should be established and followed
MOLG MOJ MOW	Legal	Legal status	Village should be recognised as legal entities. Also allowed to propose and enforce by-laws, which would promote Community management of water schemes (Women given special attention).
		Water right	Water right should be granted to respective community organisations to create a sense of ownership.
		Ownership	Water authorities instead of commissioning should hand over completed water schemes for ownership by respective communities. Existing schemes should be rehabilitated and handed over for ownership to the respective communities.

Cont

Actor	Aspect	Issue	Responsibilities
MOW MCDWAC MOLG	Water management	Water use protection and conservation	a) Conduct comprehensive leakage control programme; b) Set realistic tariffs to promote proper use of water; c) Create awareness to communities on proper use, protection and conservation; d) Protect water sources by prohibiting human activities polluting water bodies and e) Create awareness that water is a communal property, however payment has to be made for service provided to obtain water.
MOW MOH MCDWAC	Training	Lack of qualified Personnel at District and Community level	Prepare training programmes to Extension staffs and to Training Of Trainers (TOTs) who will impart basic skills to the community on construction, O&M and health education.