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THE UNITED REPUBLIC OF TANZANIA

MINISTRY OF WATER

RURAL WATER POLICY

(DRAFT)

FEBRUARY, 1999

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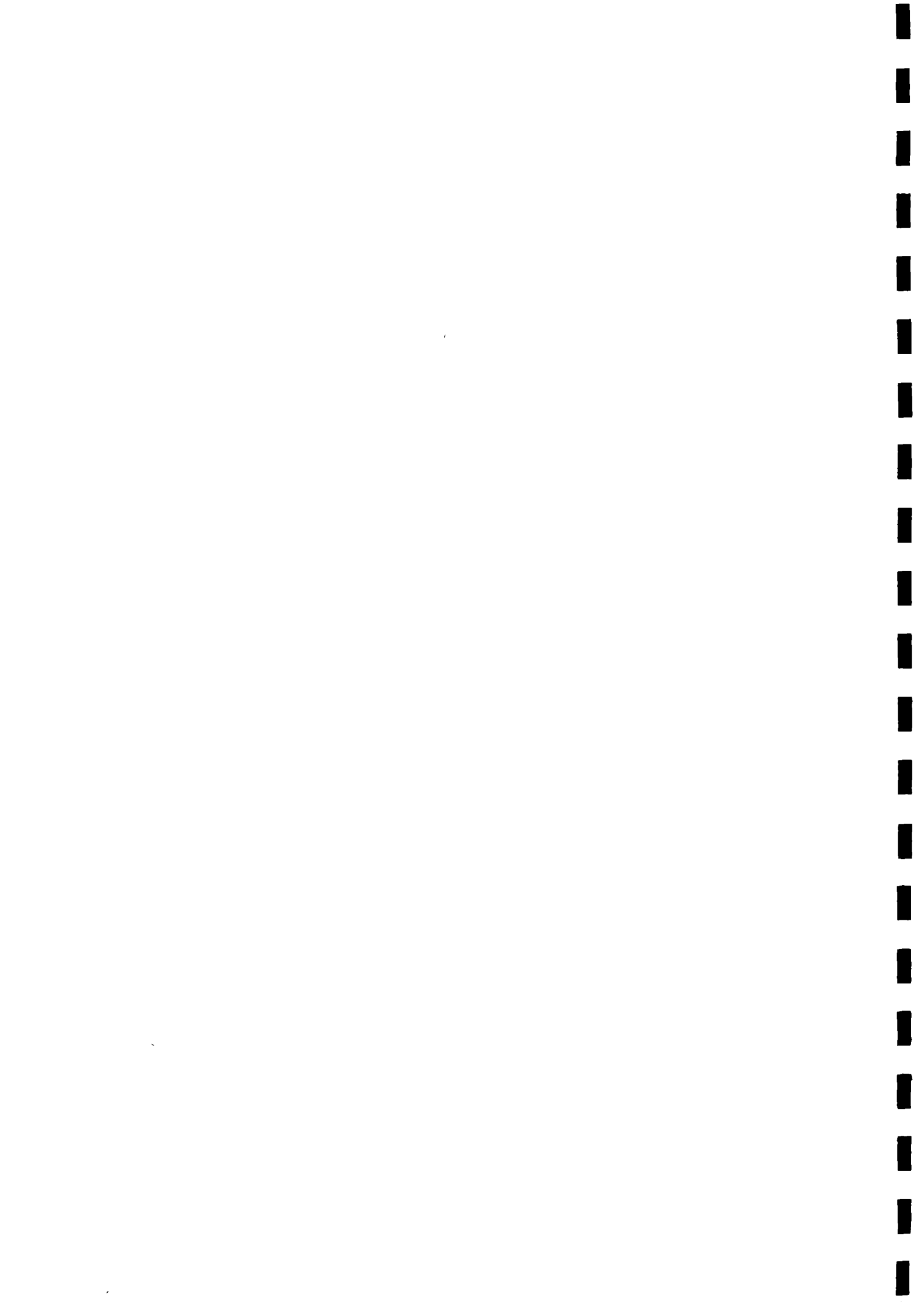
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# 1. RURAL WATER SUPPLY OVERVIEW

## 1.1 *Role of Water in Development*

Water is one of the most important and indispensable natural resource which is fundamental to life. Indeed, water is the essence of life for people, plants, animals, and the ecosystems alike. Availability of adequate water is critical for the provision of drinking water for people and animals, development of agriculture, industry, mining and power generation.

Existing data on the incidence of water-borne, water-related and water-washed diseases indicate that these are mostly prevalent where people use contaminated water or have little water available for daily use. Considering that water-borne diseases account for over half of the diseases affecting most of the population, and bearing in mind that more than 80% of Tanzania's population lives in rural areas, it is only logical that government's endeavor is geared towards improving the health and socio-economic well-being of the people through improved and sustainable rural water supply services. The envisaged improvement is expected to be achieved first, through a clear articulation of the country's rural water policy; and second, through the formulation and implementation of strategies and action plans.

## 1.2 *Water Resources Availability*

Tanzania generally has abundant surface and ground water resources to meet most of its present needs. However, differences in topography, rainfall and climate account for the existing variation in the availability of water in different parts of the country.

In the dry northern and eastern parts of the country, annual rainfall is between 500-800mm and streams are seasonal with mean annual specific runoff generally below 2 l/s per square kilometer ( $l/s/km^2$ ). On the highlands, like the South-Western highlands, Uluguru, Ukaguru and Usambara mountain ranges, and on the slopes of Mt Kilimanjaro and Meru, as well as most western parts of the country, where annual rainfall is between 1200-2600mm, mean annual specific runoff in these areas exceeds 40 l/s/km<sup>2</sup>, and rivers are perennial.

Considerable water resources also exist in the country's lakes, but their use for water supply and irrigation is currently limited to areas around the sources. It is estimated that the volume of water stored in Lake Victoria is almost 40 times the mean annual runoff of the entire country, with the volume in Lake Tanganyika perhaps 250 times and Lake Nyasa some 100 times. All of these lakes are, however, shared international water bodies. Lakes Rukwa and Eyasi and other internal lakes have far smaller storage volumes.

Groundwater potential in Tanzania is variable. Areas underlain by the basement complex yield water through secondary features, such as weathered zones, joints, fractures, faults, or solution features and some rocks such as basalts and sand-



stones. They form locally productive aquifers with borehole yields of up to 3 liters/second (1/s). Where water levels are close to the ground surface, the saturated sections of the weathered zone may be sufficiently thick to yield satisfactory quantities of water to boreholes and wells. Where water levels are deep or, where the weathered zone is absent, water may be found within the fractured bedrock. Some areas, subjected to major fault activity in the past, such as northeast of the Pangani River have borehole yields of up to 13.5 l/s.

Rainwater harvesting can be a good means of water supply, especially in arid and semi-arid areas where it may prove to be the only reliable source of water during the dry period of the year. Almost the whole country has a good potential for rainwater harvesting. This simple and appropriate technology has not been applied adequately to supplement the conventional means of water supply.

### **1.3 Water Sector Development**

The development approach of the water sector has changed over time responding to the country's overall development objectives. In practical terms, development of water resources has been carried out by different ministries and organizations with different sectoral outlook and interests which at times were dictated by conflicting objectives. In an effort to harmonize the objectives of the water sector, in 1991 the Government approved and launched a National Water Policy for overall development and management of water resources. The policy focused, among other things, on cost sharing and beneficiary participation in planning, construction, operation and maintenance of community-based domestic water supply schemes.

### **1.4 Key Features of the 1991 National Water Policy**

The 1991 National Water Policy focused on

- Beneficiary participation in all stages of the project cycle but emphasis was placed on operation and maintenance aspects
- Enhancing sustainability of water schemes through Community based management.
- Rehabilitation of existing schemes as a priority where viable
- The application of an integrated approach for water and sanitation. Institutions which were expected to integrate their activities include Ministries responsible for Water (MAJI), Health (AFYA) and Community Development ( MAENDELEO).
- Improved sector coordination by providing guidelines for External Support Agencies

unchanged  
still applicable  
to be revisited



- Environmental aspects related mainly to sustainability of the water sources through catchment protection. →
- Elaboration of roles of the various actors

## 2. POLICY OBJECTIVES

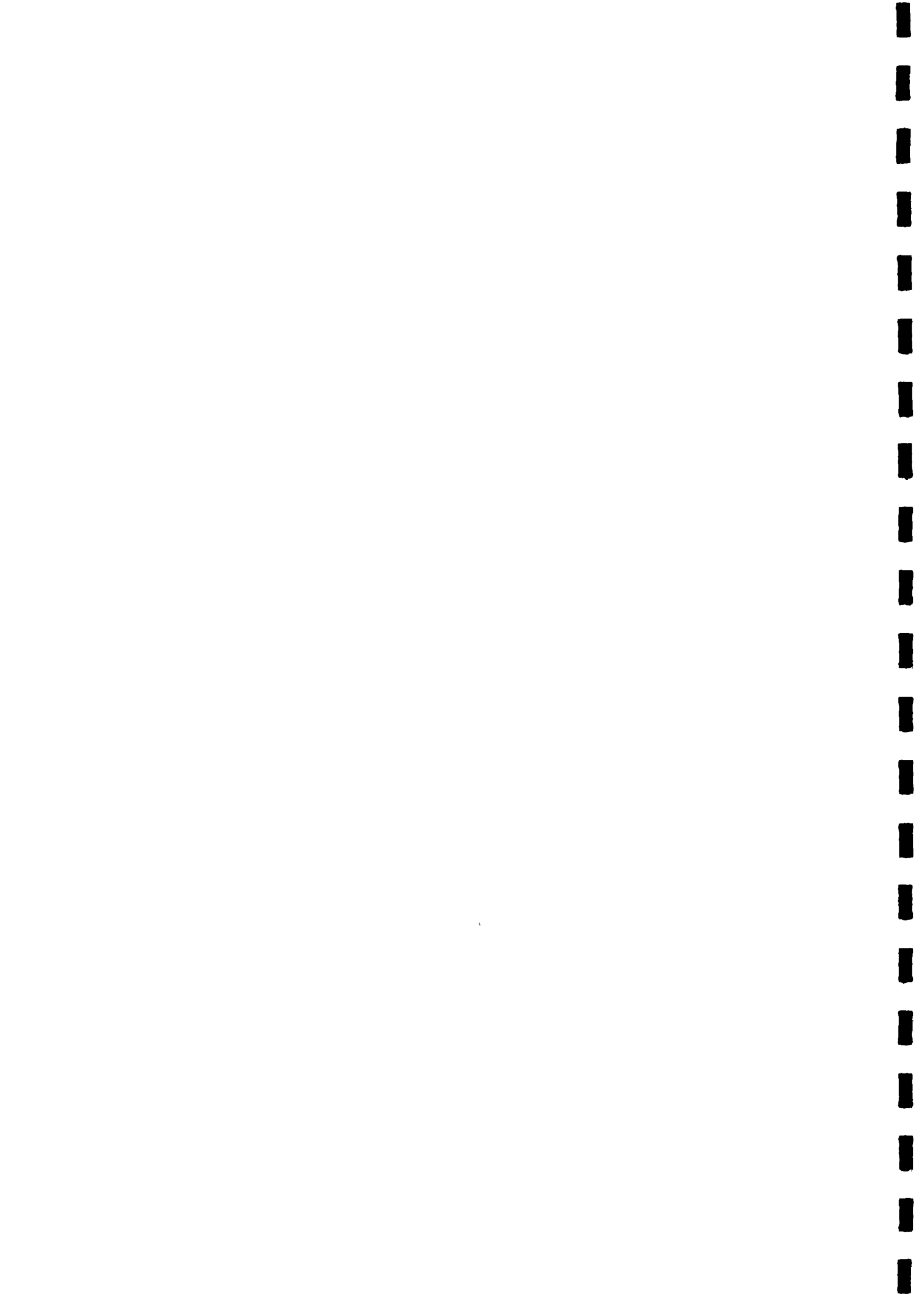
A review of the water sector carried out in 1995 identified a number of shortfalls in the 1991 Policy the most significant of which are lack of an integrated water resources management concept, necessity of a stronger involvement of the various stakeholders in water resources management, underestimation of the role of Private sector and inadequacy of the legal and institutional framework in the sector. The identified weaknesses led to the review of the Rural Water Supply component of the National Water Policy with the aim of articulating more clearly the policy objectives of the rural water supply subsector as well as the strategies which will be taken in pursuance of the stated objectives. The revised Rural Water Policy which was discussed with a broad representation of stakeholders emphasized, among other things, the following aspects:

- Roles and responsibilities of various stakeholder groups are clearly defined. + job security issues?
- Emphasis is placed on paying for part of the capital costs and full cost recovery for operation and maintenance of services as opposed to the previous concept of cost sharing. + Govt inst. contribution
- A complete departure from the traditional supply-driven to a demand-responsive approach.
- Management of water supplies to be at the lowest appropriate level as opposed to the centralized command control approach.
- Increased participation of the private sector in the delivery of goods and services → including private water
- Integration of water supply, sanitation and hygiene education

The broad Rural Water Policy objectives are **to improve health and alleviate poverty of the rural population through improved access to adequate and safe water.**

The more specific policy objectives are **to provide adequate, safe, affordable and sustainable improved water supply facilities to the rural population.**

- ① ? ownership: - water health, sus, water, infrastructure  
- land
- ② ? regulation
- ③ ? sustainability (goes with 3 (1))
- ④ ? capacity



### 3. POLICY PRINCIPLES

Formulation of the rural water policy objectives has been guided by three main principles which have been derived from experience gained in implementing the 1991 National Water Policy as well as the experience of other developing countries. These principles are: *Social principles, Environmental principles, and Sustainability principles.*

#### 3.1 Social Principles

*Water is a basic need and right as well as an economic good*

Recognizing that access to clean water is a basic need and right for all human beings, as well as being an economic good, its efficient management and equitable use will be promoted.

*Use of water for human consumption shall receive first priority*

Water is increasingly becoming a potential point of conflict as the pressures of population growth and development place growing demands on the limited and finite water resource. Water required to meet basic human needs and the needs of the environment which shall be identified as "the Reserve", shall enjoy priority of use by right. The use of water for all other purposes shall be accorded second priority and subject to authorization. *by whom?*

*Investment priority shall be given to water scarce areas*

Most parts of the country are water-scarce and experience acute water shortage, though they contribute significantly to the country's Gross Domestic Product in terms of livestock and agricultural production. The policy accords due priority to water scarce areas with respect to water supply for human and livestock use.

#### 3.2 Environmental Principles

*Promotion of water Protection and conservation*

Identification and protection of water sources from human-induced land degradation shall be undertaken.

*Enhanced conservation of the environment*

Fresh water being a finite and vulnerable resource which is essential to sustain life, emphasis will, therefore, be placed on protection of the environment in general and protection and conservation of the water resources in particular.





## *Promotion of health through hygiene and Sanitation*

Safeguarding health through integrated water resources management as well as safe disposal of excreta and solid waste shall be encouraged. This shall be achieved by integrating water, sanitation and hygiene education programs

### **3.3 Sustainability Principles**

Sustainable development and delivery of rural water supply services relies on clear definition of the roles and responsibilities of the various actors as well as those of the stakeholder groups. The pre-requisites for a sustainable rural water supply are:

- Adopting the principle of managing water schemes at the lowest appropriate level.
- the beneficiaries themselves owning and managing their water schemes
- ensuring full cost-recovery for operation and maintenance, replacement and system expansion
- guaranteeing availability of spare parts and know-how for timely repair and maintenance of the schemes through standardization of equipment and promotion of private sector involvement.
- protection of water sources and catchment areas being pursued vigorously.
- Reconciling the choice of technology with the economic potential of the user group.
- Recognizing women as being among the principal actors in the provision of rural water supply services.

## **4. STRATEGIES**

Realization of the policy objectives stated above will require application of various strategies, which will also change over time, to cope with changing needs and circumstances. The policy objectives are therefore expected to be achieved through the following strategies:

- community participation
- private sector participation,
- public sector regulation and facilitation,
- environmental protection, and
- gender awareness



## 4.1 Community Participation strategy

It has been realized that effective community involvement in planning and management can be achieved only if communities own the water schemes. Consequently, the community planning and management strategy will have to involve the following actions/ activities:

- Ensuring that users communities are the legal owners of the water supply schemes by facilitating the legal registration of water user groups using provisions within the existing Local Government Authority Acts (but 1982 Act puts ownership of assets at District Council)
- Defining the roles, responsibilities and limits of authority of Water User Groups with respect to their rights
- Educating users, communities and stakeholders on the Water Policy and its implications in terms of costs, economic aspects, technical options, environmental impacts and management requirements
- Allowing and facilitating Communities to make informed choice taking into account costs, affordability, water use, and sustainability.

Water schemes will be community initiated. Therefore communities will be well prepared to make informed decisions which will involve identification of investment priorities, and informed selection of appropriate and affordable technology

Roles and responsibilities of communities in the rural water supply sector will therefore, cover the following aspects:

### 4.1.1 Ownership

Sustainability of rural water schemes will be ensured through community ownership and management. The communities themselves will make informed choices on type of water supply and sanitation system that they want and are able to manage efficiently and sustainably. Thus communities, as owners of the schemes, will participate in the planning, design, construction, operation and maintenance of their water supply and sanitation facilities.

### 4.1.2 Financing

Adequate financing is central to water supply development and sustainability of the schemes. In recognition of the principle/fact that water is a basic need and right, the central and local governments will support communities in the development of their water supply schemes. Financial support for water supply and sanitation schemes / facilities shall be requested by the respective communities themselves who shall also demonstrate their ability to sustain the schemes before they access to financial support. Communities shall be required to pay, in cash (and in kind), 10% of the capital costs for new schemes and 50% for rehabilitation and systems expansion.



However, communities, who shall be responsible for managing their schemes will pay the full costs of operation and maintenance.

#### 4.1.3 Choice of technology

Sustainability will be best achieved when the communities make an informed choice of the most appropriate option based on low cost technology and least costly in operation and maintenance

#### 4.1.4 Construction

Communities / beneficiaries will be responsible for the letting and supervision of construction contracts to private contracts. However, communities may call on their district governments or regional / basin level institutions through their districts, for assistance in letting contracts including preparation and supervision of such contracts.

#### 4.1.5 Operations and Maintenance

Communities should manage day-to-day operations and maintenance themselves, or contract private operators to manage them. As communities become bigger and systems more complicated, water committees may find it increasingly practical to contract operations and maintenance to private operators.

#### 4.1.6 Monitoring and Evaluation

Participatory monitoring and evaluation will be carried out at the regional, district and community levels with support from the other levels.

#### 4.1.7 Regulation and Facilitation

District and village governments shall regulate water committees. Furthermore, it will be the responsibility of communities to ensure catchment protection, water source protection and conservation as well as equitable service provision to economically disadvantaged groups within the communities.

#### 4.2 Private Sector Participation Strategy

For quite a long time, water supply development and delivery has been dominated by the public sector. Only in a few cases has the private sector been involved. Potential areas for private sector involvement in water supply include:- consultancy, construction, drilling, manufacturing, equipment, materials, spare parts supply and distribution; transportation, financing, and operation and maintenance.

low cost technology  
least costly

no responsibility

responsibility  
district level

9

? village?

what are these? if users (Communities) are owners then district/village not to regulate!

responsibility  
political & social  
social contract

management



Involvement of the private sector in delivery of water supply services will be strongly encouraged so as to improve efficiency and effectiveness and enhance sustainability of the services. Deliberate efforts will be made to promote active participation of the private sector in service delivery.

The government will, therefore, work towards creation of an enabling environment for the active participation of the private sector by facilitating the following.

- Carrying out a legal review to stimulate private sector involvement
- Developing performance indicators for private sector actors to facilitate government monitoring and encourage self-regulation
- Facilitating increase in investments and supplementing the private sector by giving investment guide. (making explicit Economic, Social, Environmental and Sustainability principles )
- Providing incentives for performance, investment and self regulation *Law?*
- Strengthening the capacity of the private sector *Law?*

Private sector shall play an important role in water supply such as provision of consultancy services, community mobilization, training, construction, manufacturing of equipment, supply of spare parts, operation and maintenance services and financing of schemes. The private sector is, therefore, expected to perform the following tasks:

- Mobilize and train communities for responsive demand for water and sanitation facilities.
- Assist communities to plan, design, supervise, construct and manage their systems.
- Construct water and sanitation facilities
- Supply, install and service plant and equipment.
- Operate and maintain facilities under contract with the communities
- Promote and train communities in hygiene and health education
- Carry out innovative research and development, and dissemination of technology.
- Supply spare parts *production...*
- Facilitate communities to have access to credit

Thus, the private sector will be expected to provide communities with planning, design, and management support. However, until communities and private sector capacity is





strengthened, districts may be requested to assist. The procurement process will be handled at the district level.

realistic?

for what?

↳ why not give \$ to WUE / Company under establishment

Deliberate efforts shall be made to ensure the capacities of the communities and the private sector, particularly at district level are built to desirable strength.

### 4.3 Public sector regulation and facilitation Strategy

Until recently, the Ministry of Water played a key role in implementing water programs. The new strategy, under the ongoing reforms in the public sector, is for the Ministry to change its role from being an implementor to a facilitator, regulator and promoter.

At present, there are various pieces of legislation governing allocation, utilization, protection and conservation of water resources. In order to achieve sustainable water supply the various sections of legislation shall be regularly reviewed and updated and where necessary, new legislation enacted.

Under the new strategy where the government has to act as a facilitator, regulator and promoter its roles will be as follows:

#### 4.3.1 Roles of the Central Government

- who or which parties  
- new structures

- to provide clear policy framework
- to provide clear legal framework and review legislation related to water resource management
- to promote standardization of equipment and ensure availability of spare parts
- to facilitate research and development of appropriate technology and its dissemination
- to promote institutional capacity building at district level  
↳ not engine? or just title?
- to create an enabling environment for private sector participation in provision and management of water supply.
- to delineate catchment areas to facilitate protection and conservation of the same and impose enforcement.
- to allocate water rights and provide legal framework for ownership of water schemes by water user entities

- monitoring
- donor coordination
- market information
- water quality control
- international relations
- HRD



- assess what is available  
- determine what is needed  
- assess the gaps?  
- determine training, etc

### 4.3.2 Roles of the Local governments

- to monitor and provide back-up support to the communities
- to support capacity building at district and community levels and in the private sector
- to provide financial support for the construction of new schemes, and expansion and rehabilitation of existing water supply schemes
- to coordinate sector development including donor support.
- to facilitate participatory monitoring and evaluation at all levels.
- to plan for rural infrastructure including rural water supply based on community demand
- to assist communities to secure private sector services for the design, construction and improvement of the water supply and sanitation facilities
- to provide technical and management support for communities to maintain their water supply facilities.

### 4.4 Environmental protection strategy.

Water resource is not only important for the provision of water for domestic purposes, agriculture and industry, but is also a catalytic ingredient to many other community development activities. Water resources also plays a major role in the sustenance of natural ecosystems. However, in the course of playing the above roles, its quality deteriorates and quantity diminishes while its demand is ever increasing due to a rise in human population and the need for food security. The need for protecting and conserving the existing water resources is therefore eminent.

Domestic water supply and other related services are dependent not only on the physical and chemical characteristics of the water itself, but also on the proper functioning of the ecosystems such as rivers, lakes, dams, wetlands, estuaries and the coastal marine environment. It is the proper functioning of the whole ecosystem which gives a water resource its ability to recover from droughts, floods and human-induced impacts.

However, water resource protection and conservation is a multi-sectoral undertaking involving many actors and sectoral policies. To achieve this goal will require coordination among sectors, stakeholders and other actors.

no strategies !!



#### 4.5 Gender Awareness

In rural areas, women bear the burden of searching for water and are the most affected by problems associated with scarcity of water. The pivotal role of women as carriers and users of water and guardians of the living environment has seldom been reflected in institutional arrangements for the development and management of water resources.

Deliberate efforts will be made to raise awareness, train and empower women to actively participate at all levels in water programs, including decision making, planning, supervision and management. A fair representation of women in village water-user entities will be encouraged. Rural water supply programs should be based on what both men and women in rural communities know, want, are able to manage, maintain and pay for.

*No strategy!*

### 5. WATER USE AND ALLOCATION ASPECTS

Section 8 of the Water Utilization (Control and Regulation) Act No 42 of 1974 stipulates "All water in Tanganyika is vested in the United Republic". Water, as a socio-economic good of very high value is a common resource to all, the use of which should be subject to National control. The present Water Utilization Legislation has a basic Principle of no ownership of water but a right to its use. Thus, all water abstractions in the country are governed by the Water Act (control and regulation) No. 42 of 1974 and its Amendment Act No.10 of 1981. Such abstractions are granted through issuing of water rights. In order to ensure equitable use and protection of water sources, the ministry responsible for water will monitor and regulate water uses.

Water from all sources will be allocated equitably to meet domestic, livestock, agricultural, fisheries, recreational and tourism, industrial, institutional, transportation, energy and environmental requirements, bearing in mind that first priority is given to human consumption.

#### 5.1 Domestic Water Supply

Minimum water requirement for human survival is about 10 litres per capita per day. However, in rural areas of Tanzania, actual water use ranges from 10 - 30 litres per capita per day. The basic level of service for domestic water supply in rural areas is defined as a protected, year-round supply of 25 litres per capita per day through public water points located within 400 metres from the furthest household, and serving no more than 250 persons per outlet.

High level of service will be provided to those demonstrating an effective demand depending on the availability of water at the source(s) and other considerations determined by the respective water-user entities.

*or in other words: the ... will not take the water of the poor*



## **5.2 Water for Livestock**

Most of the population in the semi-arid regions are engaged in livestock keeping and about 90% of the livestock is found in rural areas. The average daily livestock water consumption is estimated at 30 litres per livestock unit. In order to ensure that livestock is provided with adequate water, the government will place emphasis on construction of dams and charcos and integrating livestock water requirements in the design of rural water supplies.

## **5.3 Water for Institutions**

Many institutions in the rural areas such as schools, dispensaries, health centers and religious centers do not have satisfactory water supply services.

Water supply for institutions will be considered in the design and where possible such institutions will have their own sources such as rainwater harvesting systems. In addition, institutions will play a catalytic role in the establishment of sustainable community-based water supplies.

## **5.4 Water for Irrigation**

Irrigation is by far the largest consumptive water use accounting for about 97% of all consumptive uses put together. In irrigation projects, water conservation through demand management measures will be emphasized.

## **5.5 Water for the Ecosystem**

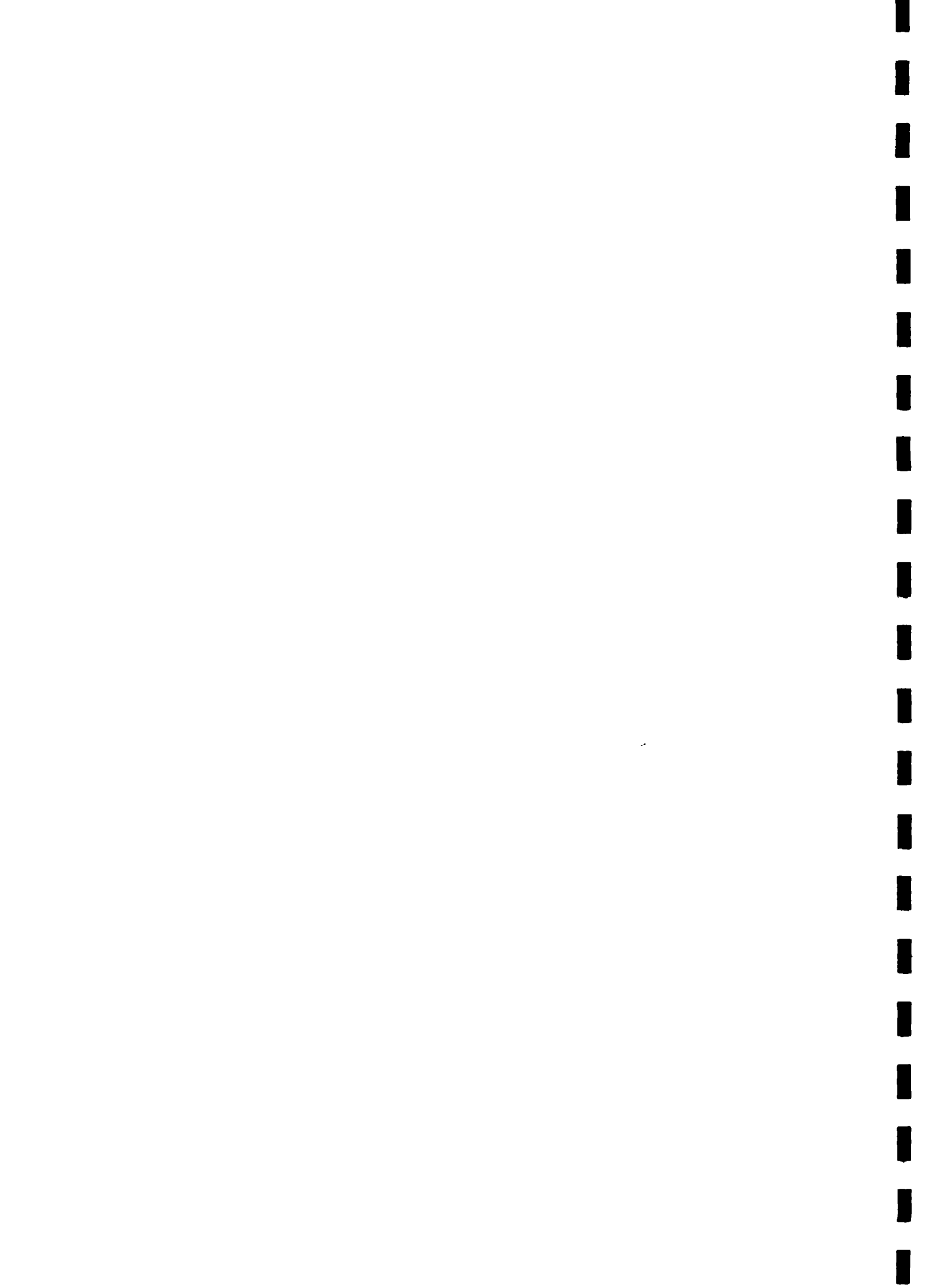
Water plays an important role in maintaining the ecosystem. When allocating water for the various uses, water requirements for the sustenance of the ecosystem will be taken into account.

## **5.6 Utilization of Lake Victoria Waters**

Nearly one half of the area of Lake Victoria (which is approximately 34 500 km<sup>2</sup> with about 2 740 billion cubic meters of water) lies in Tanzania. This body of water which is the most reliable long-term source of water for the semi-arid regions of Mwanza, Mara, Tabora, Shinyanga, Singida and Dodoma has not been effectively utilized. Deliberate efforts should be made to use Lake Victoria water to meet domestic and livestock water needs in these regions.

## **5.7 Rainwater Harvesting**

It has been observed that almost the whole country has a good potential for rainwater harvesting for various uses in the rural areas. However, this simple and appropriate technology has not been applied adequately to supplement the





conventional water supply means. Rainwater harvesting for rural areas will therefore be promoted.

## 6. PLANNING AND COORDINATION

In the past, water supply projects were being initiated and implemented solely by the government at national, regional and district levels. Communities were not seen to be effective partners, which in turn adversely affected sustainability. Community involvement at all stages of the project cycle will be strongly emphasized.

During planning and implementation of rural water supplies, priority will be given to communities which will have demonstrated an effective demand for water supply by establishing legal user entities and creating water funds and showing readiness to pay in-cash and in-kind towards capital costs. The communities being owners of the schemes, will be responsible for operation, maintenance and care.

Planning for project implementation shall be bottom-up in order to respond to the priority needs of the communities.

In order to ensure that the available resources are used to the maximum benefit, priority will be accorded to low-cost technologies, as well as rehabilitation and completion of on-going projects rather than new ones.

In order to perform its task, the district level will be strengthened through training and deployment of the required manpower, and provision of the basic working facilities. The Government will ensure standardization, so as to guarantee the availability of spares so as to cut down scheme idle time, in case of breakdown; to reduce stocks of different types of spares to be held in store and to facilitate replaceability.

Although water supply development and management in Tanzania is a mandate of the Ministry responsible for water, other sector related ministries, and agencies are involved. These are the regional and district authorities, water user entities, communities, the private sector and NGOs. External support agencies also play an important role in the development of rural water supply.

In view of the numerous actors in the sector, institutional arrangements will be made to establish and sustain coordination mechanisms among the various actors involved in service delivery.

At National level, there is an Interministerial Coordination Committee (IMCC). Likewise at Regional level, the Regional Secretariat will be responsible for overall coordination. A similar mechanism shall be instituted at District level. ESAs shall be coordinated at the National level through a Technical Advisory Committee (TAC).



## 7. CONCLUSION

Rural water supply is one of the important uses of the country's available water resources. The relevance of this sub-sector towards the social economic well-being of a majority of Tanzanians has been underscored

*the process, still to be proven*  
It has also been acknowledged that the management of the water resources could be best handled at the lowest appropriate level. This calls for a consistent policy within the water sector and the need for the water resources management policy to be consistent with the policies of the other sectors like Agriculture, Livestock, Fisheries, Lands, Science and Technology, Community Development and Health.

Success in implementation of the rural water policy will largely depend on political will, accountability, concerted effort and collaboration between Ministries and various sectors and institutions as elaborated in this policy. The Government shall ensure that there is close supervision, monitoring and evaluation in order to guarantee the realization of the policy objectives.

3



