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STATUS OF WATER SUPPLY AND SANITATION SECTORS IN TANZANIA

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1.0 INTRODUCTION

1.1 An Overview:

Water Supply and Sanitation Sector is vital for supporting National Economic development by improving health and productivity of the population.

Tanzania like the rest of developing world has most of its population living in rural areas where it is subjected to diseases derived from unsafe water and improper sanitation. It is estimated that more than 80% of the diseases and 30% of deaths in Tanzania are caused by people drinking the contaminated water.

Tanzania has its major collaborative efforts between the Government and a series of external agencies in improving the quality of life of its citizens by participating in a global WATER DECADE (1980-1990) and HEALTH FOR ALL by the year 2000 with the aim to provide every family with access to clean water and hygienic excreta disposal. In the implementation of the programmes attention was focussed on the construction of the new schemes to take pace with the main objectives of 100% coverage at the end of the programmes. Little efforts were given to operation, maintenance and management of the completed Schemes. As a result in the course of the implementation of the programmes it was noted that the situation was different in that many water supply and sanitation services were either abandoned or provided services below their expected capacities resulting into a very low coverage.

1.1.1 Service Coverage

The population of Tanzania has risen from 9 million during independence in 1961 to over 30 million inhabitants today. Approximately 25% of this population live in urban while the rest lives in rural areas.

Being among the sub sahara country, Tanzania experiences a high population growth rate exceeding 3% per annum but more than 6% for urban settlement mainly due to migration. Despite the considerable investments of the government resources in terms of manpower and finance in the water sector, studies have show that in 1997 only 48% of 22.5 million rural population and 68% of 7.5 million urban population had access to safe drinking water. This figure does not however, take into consideration the frequent breakdown of the facilities due to poor operation and maintenance. In sanitation on the other hand, it has been reported that 98% of the urban population have access to sanitary disposal of the excreta. Also about 84% of the rural households are having latrines near their homes.(Source UNICEF SWC,1997). It is evident that this figure shows a

high level of sanitation coverage, as a result of extensive latrinization programs implemented during the IDWSD (1980-1990).

On the basis of the above figures, it is considered to be a quantitative rather than a qualitative coverage, statistically. It indicates that only few defecation takes place in open air, although many rural individual household latrines often are in poor condition because of inadequate maintenance.

1.1.2 Health Indicators

Epidemiological data shows that infant mortality rate which is to a large extent related to poor environmental sanitation is about 100 deaths for every 1000 infants. These figure shows that Tanzania is above the Africa and global rate of 88 per 1000 and 59 per 1000 respectively.For children less than five years of age the mortality rate is 160 per 1000 while global rate is 78 per 1000 and for Africa is 130 per 1000. It is evident that there is an incidence of water borne diseases such as diarrhea and cholera, which are prevalent throughout the country.

In 1997 there was an outbreak of cholera which spread to all 20 regions in the mainland Tanzania and Zanzibar. In the mainland there were a total of 40,249 cases notified and 2,231 deaths (Epidemiology Unit MOH 1997). Frequent outbreak of cholera in the country and in most recent in many regions can be perceived as either the use of contaminated water supply or adopting unsanitary means of excreta disposal and poor health practices. This also indicates the life costs due to little attention to the proper functioning of water supply and sanitation services.

1.2 ASPECT OF OPERATION AND MAINTENANCE

For many years before and after independence many water supply and sanitation programmes have been implemented. Before Independence, the execution of water supply projects were being done by the Central Government where by local authorities were contributing 25% and the central Government the rest; Operation and Maintenance costs were met by revenue from water sales collected by the local authorities. These services were primarily delivered in townships trading centers, mission centers and large estates. Noticeable investment did not begin in rural area until post independence. After independence O& M activities were done by the central Government through regional administration. In 1965-1969 The Government in collaboration with the Swedish Assistance initiated a Regional Maintenance Unit (RMU) in 16 regions and the uniform procedures of running them had already been established. The system was changed after decentralization in 1970's. Funds for O& M were

being channeled from Treasury through RWEs' and DWEs' offices. District maintenance units started in 1975 with the constructions of District water offices with. Local and additional funds from Swedish credit (Maji facilities Fund). DWES, continues to get technical assistance from the RWE's Office.
With the re- introduction of local Government Authorities in 1980's, funds for O & M were channeled to District councils and for Urban areas were allocated to RWE through RDD's. This approach resulted into wide disparities in regional coverage and the community participation level. Despite the significant investment made by the govt. and donor agencies during the 20 years program (1971-1990), by 1991 only 42% of the rural population had an access to safe water and 67% of the urban population were served with potable water supply. The program had therefore failed to meet its expected target of 100% coverage.

The target was then revised by extending it to year 2002 and was referred to as "WATER FOR ALL BY 2002" At this stage the Government recognized the importance of National Water policy which was subsequently launched in Nov.1991

The National Water Policy marked a clear departure from the era of FREE WATER by introducing a new philosophy of COST SHARING in RWS and complete COST RECOVERY in UWS. Unfortunately the policy did not effectively address the need for sustainability of the sector as a result, at the end of 1993, the service coverage rose marginally to 46% of the rural population and 68% of urban population.Out of this about 30% of the water supply schemes in rural areas were either malfunctioning or completely inoperative.

The root causes of the failure among others are unsatisfactory operation and maintenance, poor design, Improper management, Institutional setups and poor water resources management. The Ministry of Water is now in the middle of the review of the water policy to accommodate the sustainability issues of water supply and sanitation services.

2.0 ANALYSIS OF THE EXISTING SITUATION

Currently Water and Health sectors commands a very high profile in the Government. A specific ministry responsible for Water and of Health is an example of the level to which the sectors are prioritized in Tanzania. However, the financial resources allocated to the water sector have not been commensurate with the reflected priority it deserves in the national economy. The low level of Government funding in the water sector was also experienced during the IDWSSD. It has been noted that country economic progress, had little impact on the Social Services (Health, Water, Education) due to the continued decline in government budgetary allocation. For example in 1995/96 water sector was allocated 4.95% of development budget, out of the total budget for all sectors. The amount declined to 4.51 in 1996/97 budget. This constraints is being solved by on going government reform. The use of non traditional funding

system in water and sanitation sector is encouraged by introducing private sector in its program.

For example, the private firms or individuals can construct water supplies and/or sanitary facilities and sell the service to the people. Similarly individuals or group of people could take part in the management of water and sanitation facilities.

Tanzania health strategy focuses on the delivery of primary health care services, with the objective of strengthening district management capacity, multisectoral collaboration, and community involvement.

More than 60% of the health services in the country are provided by the government and the remainder is provided by non governmental organisations and private sectors. The services are provided through referral, Region, district to the village levels.

According to Tanzania Demographic Health Survey) (TDHS 1996) there are 180 hospital in the country most of them being Regional hospital. At the division level, there were 296 health centres and the ward level there are 3,286 dispensaries. At the village level, village health post have been established staffed with at least two village health workers. There were more than 5,550 village health workers in Tanzania (1996).

All these health facilities are contributing to an extent in the promotion of sanitation and hygiene practices.

2.1 Urban Sanitation

The sanitation in urban areas in particular has suffered the most, probable, due to rapid urbanization which could not cope with the already poor provision of the basic services. Even today the situation has not been addressed adequately. Dar-es-Salaam city for an example, with a population of over 3 million with institution and Industries it is still at a very low level in dealing with sanitation problems. About 2000-2500 tons of solid waste and 20,000-30,000 tons of liquid waste are produced daily. Today only 20% of the solid waste are collected and dumped in unsanitary landfill. Sewage from conventional sewer system and septic tanks account for 28-30% of the total load which ends in wastewater oxidation ponds and sea out fall.

Apart from Dar-es salaam only 6 other urban centers of Arusha, Mwanza, Dodoma, Tanga, Moshi and Tabora have sewerage systems at various level of disintegration. The remaining of regional urban centers use onsite sanitation or septic tanks. Since the cesspit emptier are insufficient or non-existent in some small urban centers, untreated effluent cause an environmental pollution. Manual emptying of septic tanks and latrines (traditional frog emptying) is in some cases practical in crude and unhealthy ways. Solid waste collection and disposal is also a current problem in Tanzania especially in unplanned urban development. Most of the domestic garbage produced is not readily collected and the collected waste is disposed crudely on land or incinerated in open air.

Storm water drainage system adopted in most of urban centers in Tanzania is open channels. Some of these channels has been constructed before independence and have not been upgraded since 1960s. The unimproved channels overflows cause environmental degradation like erosion and water ponds in urban settlement areas which results into a breeding site for mosquito and other insects vectors of diseases.

2.2 Rural Sanitation

Traditionally rural Tanzanian use pit latrines for excrete disposal. Conventional water closet toilets are only found in developed rural areas with piped water supplies. Studies shows that out of 85% of the rural population having latrines; 25% of the latrine have no roofs and about half of them have no doors. The poorly constructed pit latrines (which are often shallow) are becoming a breeding site for flies and cockroaches which are carriers of faecal borne infections, They can also cause surface and ground water pollution especially in areas with high water table.

Solid wastes in rural areas have not yet had the impact in pollution of the environment as compared to urban areas as it is used in farms as manure; whilst noncompostable materials are burned in open air.

2.3 Urban Water Supplies

Urban water supply has traditionally been managed at three levels; National, Regional and District levels. Until 1994 all regional water supplies, with exception of Dar es Salaam and Dodoma came under the responsibility of Regional Water Engineers (RWE). By then Dodoma was directly under MOW, while NUWA (now DAWASA) responsible for Dar es Salaam water supply functioned as a Government Corporation. For several years operation and maintenance of urban water supplies and sewerage systems has been inadequate. In order to readress the situation, the Ministry of Water, through an in house team of experts and supported by donor agencies conducted a study in 1992 in order to exploit means and methods of improving O & M of these systems. As a result of the study in February 1997 the Parliament amended some legislation concerning the water sector including water works ordinance. In operationalizing the ordinance the Minister for Water declared all eighteen regional urban centers to have autonomous water authorities called Urban Water and Sewerage Authorities (UWSAs). These authorities are managed by the Board of Directors appointed by the Minister for Water.

The UWSA has been categorized as, **(a)**, for those authorities which meets all O & M costs; **(b)**, those which can meet O&M costs except staff salaries and **(c)** for those which can meet O&M costs except staff salaries and electricity charges.

As per December, 1998 the categorization was as follows:-

Category (a) Arusha, Moshi, Tanga and Mwanza; Category (b) Morogoro, Mbeya and Tabora the rest falls under category (C). The establishment of UWSAS shows a drastic improvement in both service delivery and revenue collection.

2.4 Rural Water supply

The most under developed area in terms of water supply provision is in the rural and in small urban centers. As observed earlier it is estimated that only 48% (1997) of the rural population gets water. The MOW conducts its responsibility for rural water supply in Regions and districts through Regional Water Engineers (RWE) and District Water Engineers (DWE) offices. The work of DWE at district levels is guided by Districts Authorities. Administratively DWE and RWE are under the Ministry of Local Government and regional Administration respectively but technically they are under MOW. The draft Rural Water Supply component of the Water Policy (1998) clearly defines the roles and responsibilities of the various actors as well as those of the stakeholder groups in the sustainable development and delivery of rural water supply services. Regarding certain tasks, such as health education and community mobilization the water sector is also closely coordinated activities with the Ministry of Health and Ministry of Community Development, Women Affairs and Children.

2.5 PROBLEMS AND CONSTRAINTS

A number of lessons have been learned and constraints identified as a result of the implementation of water supply and sanitation programs.

These include the following:-

2.5.1 One of the major constraints for water supply and sanitation sector development in the country is inadequate operation and maintenance. Its implication resulted into poor sanitation, decrease in water production, and high cost of rehabilitation of the constructed schemes.

2.5.2 Lack of awareness and general ignorance of the dangers caused by poor sanitation. Latrines and health are taken as separate issues. Latrines are not built for health reasons but for privacy. People do not understand that having latrines is not all enough as feaces and urine remain on the floor and get access to flies and cockroaches, which are carrier of diseases.

2.5.3 The non existence of an information system capable of monitoring facilities and activities in the sector, that is lack of centralized database for sanitation. Inadequate reliable information has been a constraints to planning, management and rehabilitation services.

2.5.4 In appropriate choice of technology. During design of water schemes, at time unserviceable or difficult to operate and maintain technologies have be selected.

2.5.5 Old age of the systems.
In most urban water supply systems the existing pumping system and treatment plants are working under design capacity and also contributing to about 30 – 40% water loss from the systems.

2.5.6 In appropriate institutional arrangement of Operation and Maintenance of Urban Water Supply and Sewerage has, until recently, suffered a number of set back.

- There was no relationship between the revenue collection and fund allocation for O & M services.
- Water tariff rates were uniform in all urban centers regardless of the variation in the cost of production and service rendered in the individual system.
- Private sector was not fully involved in the water service delivery and the beneficiaries were not involved in the operation of the system.

2.5.7 In rural water supply, the question of ownership, section 5 (2) of the Local Government (Finance) Act No.9 of 1982 stipulates that all water works and other properties of the kind situated in the respective district are vested in the district

council. By virtual of this legislation all water works are deemed properties of the district council.The district council is empowered to delegate the discharge of these functions. This become a constraints in the implementation of water policy (revised 1997) which declares the users, to be the owner of water and sanitation intervention.

2.5.8 Inadequate legal and regulatory framework. Pollution of water sources, illegal connections and the participation of private sector in the water and sanitation activities are areas which have not been adequately addressed by the existing legal and regulatory framework.

3.0 THE GOVERNMENT POLICIES AND STRATEGIES

The water sector in Tanzania is guided by the water policy of 1991. The document covers issues of the use and allocation of water resources and sewerage services.

The Government has no specific policy on sanitation but the implementation of sanitation programs is guided partly by reviewed water policy and in some part by health policies. The main objective of sanitation sector is to improve the urban areas and to extend services to the uncovered rural communities.

3.1 STRATEGIES

The main strategy to Water and Sanitation is to achieve the broad objective of water and sanitation sectors which is "WATER FOR ALL BY 2002 and HEALTH FOR ALL BY 2000"

3.1.1 Government Role

Because of major institutional reform occurring in many sectors in the country, and due to donor re-orientation of their support in water and sanitation sectors, the Government is now moving from being a PROVIDER of the services to that of being a FACILITATOR AND PROMOTOER.

The sectors are adopting policies on investment and cost recovery, which lead to financial self sufficient of the sector with government contribution clearly defined and limited to achieve specific target.

3.1.2 Community role:

The government has put an effort on the promotion of the role of communities in the sectors. The water policy provides for full involvement of users at all stages of the project especially planning, construction, operation and maintenance, through this involvement and adequately support, the community will progressively own the water supply schemes and therefore will be responsible for the upkeep of the facilities. The community will also participate in the construction of their individual household latrines and solid waste disposal facilities.

3.1.3 Demand Responsive Approach

The Demand Responsive Approach (DRA) has emerged an innovative strategy for assisting willing communities to improve their water supply and sanitation services. The approach involves the community to identify and solve WSS problems and improve their user satisfaction, sustainability and resource mobilization by re-orienting the supply agencies to respond to community demand for improved services.

3.1.4 Women participation

Women play a central role on the provision, management and safeguarding of water supply and sanitation facilities. Women participation will be promoted through effective participation in decision-making, planning and implementation of water and sanitation. Facilities manage the operation and maintenance and conduct health education for hygiene and environmental sanitation.

3.1.5 Private sector and NGOs

Tanzania is seriously exploiting possibilities of the private sector participation (PSP) in the water and sanitation sectors. The World Bank under Institutional Reform Component is supporting this interactive through Bank's support to DAWASA in Dar es Salaam. In other towns and in villages the involvement of private sector and NGOs is limited to consultancy, contracting, equipment manufacturing and supplies, community mobilization, operation and maintenance services, hygiene education and finance.

The Government however ,has to create an enabling environment and capacity building for PSP to be operative.

3.1.6 External support Agencies (ESA)

The external support agencies are providing support to the sector through the Government or with NGOs in partnership with the Government. They should work closely with the sectors to develop strategies arrived at standardization and integration of numerous approaches existing in the country to day.

3.1.7 Coordination

National Water and Sanitation Sector Coordination Unit has recently been established. Through UNDP founded project known as "Water and Sanitation Sector Coordination Project". In this respect regular consultative meeting are held at which experience are shared.

Country level collaboration is done through the consultative meetings and the Annual Water Experts Conference (AWEC) last held in December 1998.

In the district and village level the coordination is done in collaboration with the Ministry of Community Development Women Affairs and Children through the Community Development Department.

However, the UNDP project has started the coordination mechanism in a selected district in lake zone, the experience gained will be disseminated to other districts in the country.

4.0 CONCLUSION

Operation and maintenance is a challenge to the water and sanitation sectors. This is so because of the long history where Government has been responsible for the provision of these services to its people. The emphasis now is for the people to run these service themselves.

The current Government approach through community involvement has encouraged people in the process of ownership and management of water and sanitation facilities and thus influencing a desire to change towards sustainability.

The cost sharing and cost recovery approach in the running of the facilities will enable to sustain the completed schemes and to maintain the coverage achieved.

Funds from the traditional sources, therefore could be invested in new projects to cover more people and progressing step by step towards achieving the 2002 target.