THE UNITED REPUBLIC OF TANZANIA



MINISTRY OF WATER

Water Sector Development Programme

2006 - 2025

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List of Acronyms

BWO Basin Water Office

CBO Community-based Organisation

COWSO Community-Owned Water Supply Organisation
DAWASA Dar es Salaam Water and Sewerage Authority
DDCA Drilling and Dam Construction Agency

DPG Development Partners Group
DWST District Water and Sanitation Team

ESA External Support Agency

ESMF Environmental and Social Management Framework EWURA Energy and Water Utilities Regulatory Authority

FSP Facilitation Service Provider

HIV/AIDS Human Immunodeficiency Virus/Acquired Immuno Deficiency Syndrome

JAS Joint Assistance Strategy
LGA Local Government Authority
M&E Monitoring and Evaluation
MCS Maji Central Stores

MDGs Millennium Development Goals
MIS Management Information System

MKUKUTA Mkakati wa Kukuza Uchumi na Kuondoa Umaskini Tanzania

MoF Ministry of Finance

MoH&SW Ministry of Health and Social Welfare MoU Memorandum of Understanding

MoW Ministry of Water

MTEF Medium Term Expenditure Framework

NAWAPO National Water Policy

NGOs Non-Governmental Organisation O&M Operation and Maintenance

PMO-RALG Prime Minister's Office – Regional Administration and Local Government

PMS Poverty Monitoring System
PRS Poverty Reduction Strategy
RDP Rural Development Policy
RPF Resettlement Policy Framework

RWSSP Rural Water Supply and Sanitation Programme

SWAP Sector Wide Approach to Planning TSP Technical Service Provider

TZS Tanzanian Shillings
USD United States Dollar

UWSA Urban Water and Sanitation Authority

UWSSP Urban Water Supply and Sewerage Programme

WRI Water Resources Institute
WRM Water Resources Management

WRMP Water Resources Management Programme
WSDP Water Sector Development Programme
WSSA Water Supply and Sanitation Authority

1 General Context of the Water Sector

1.1 Water Resources Management

Food security, energy security, environmental security, health security, industrial security, and social and economic security all hinge directly or indirectly on water security. Despite the fact that Tanzania is relatively well-endowed with freshwater resources, water insecurity exists and is compounded by inadequate investments in: (i) water storage and other water resources infrastructure to manage droughts and floods; (ii) water quality management and pollution control; and (iii) water resources management systems, institutions, and regulations.



This has resulted in a climate of poor governance and is contributing to water-use conflicts, threatening sustainability of water sources and the destruction of natural storage capacities.

Inadequate coordination of water resources planning and management in the past has resulted in conflicts between the energy and agriculture sectors, between productive uses and environmental protection, between water supply and wastewater discharge and between upstream and downstream users. Unmet water needs generally impact most severely on the poor.



While measurable progress has been made in achieving specific targets - especially in the delivery of services, such as increasing water supply coverage and hydropower generation capacity - the necessary institutional and reforms for legal water resources management have evolved slowly. Water resources institutions are poorly resourced and poorly functioning. Significant gaps remain in relation to potable water supply. meeting energy demand, and food security. Important lessons learned from recent projects have yet to be internalised and acute water resources governance problems persist. The concept of integrated water resources management adopted in the past decade is not uniformly understood, accepted, or properly supported.

1.2 Related Sectoral Policies

Water is a basic natural resource and a fundamental input to various socio-economic development activities, such as industrial production, irrigated agriculture, livestock development, mineral processing, hydropower production, land and forestry, etc. Each of the sectoral policies relate to NAWAPO in different ways. Since water resources management and water supply and sanitation are multidisciplinary and multisectoral activities, the individual health, environmental, local government reform, rural development, land and settlement, and forestry policies, etc. provide strategic linkages to the NAWAPO, and supplement the aims and objectives of NAWAPO as envisaged under this programme.

1.3 Rural Water Supply and Sanitation

For a long time, the government has been the owner and operator of rural water supply systems. This has lead to lack of commitment by communities to sustain their facilities. It has also led to overlap of roles and inadequate coordination. Many existing water supply systems are unable to meet the demands of a growing population. This has lead to the prevalence of water borne diseases and loss of productive time that is used to search for, collect and transport water.



Projects and programmes have typically been implemented by a variety of government agencies and non-governmental organisations using inconsistent approaches which have not always included the participation and system ownership by the beneficiaries. Overlaps of responsibilities and interventions have also meant inefficient application of resources across the sub-sector. Often, user charges are not sufficient to adequately cover operation and maintenance (O&M) costs. For large schemes, government subsidies are still granted to offset electricity bills, chemicals and salaries. The availability of spare parts at the district level is often problematic, contributing to O&M problems. It is estimated that about 30% of all rural water supply schemes in the country are nonfunctioning.

1.4 Urban Water Supply and Sewerage

Under the Water Works Order of 1998, 19 Urban Water and Sanitation Authorities (UWSAs) were established as "autonomous" bodies. The Dar es Salaam Water Supply and Sewerage Authority was established under a different Act. UWSAs are functional but are challenged by many deficiencies, do not vet fully exercise their autonomy, and are not financially self-sustaining. Boards are autonomous in decision-making, but are challenged by varying levels of skills and experiences. UWSAs are reluctant to increase tariffs to commercial levels for a variety of reasons.

Few authorities are replacing worn out equipment, and most depend on donor aid or grants from Ministry of Water (MoW) for major refurbishments. Often, O&M practices consist of responding to systems faults and visible leaks, rather than preventative maintenance.

Most UWSA finance departments have computerised billing systems and four are relying on manual systems. The average level of arrears in the UWSAs is high at around six months of accounts receivable, most being owed by households, but many also by institutional customers.

1.5 Limited Resources for Management of Water Resources and Service Delivery

Many External Support Agencies (ESAs) used to prefer bilateral financing of individual projects under a myriad of policies and implementation arrangements instead of a more consolidated approach. some of the DPs have already made progress towards financial harmonisation and general budget support mechanisms. Budget sources and donor financing need to be substantially expanded to reach the MKUKUTA, Millennium Development Goals (MDGs) and Vision 2025 targets for water resources management and water supply and sanitation coverage. Beneficiary communities are responding to their new role in water

resources management and water system management and ownership; however there is still a commonly held belief that water should be free which, when combined with existing levels of poverty, reduces their ability and willingness to pay for services.

1.6 Capacity Constraints

The National Water Policy (NAWAPO) 2002, introduced an entirely new approach to implementing water supply and sanitation resources management. Traditionally, the sector had been centrally controlled and implemented. NAWAPO, consultations and planning starts from the grass roots; implementation is at the most appropriate level, closest to the beneficiaries. User groups are not only responsible for operating, maintaining and sustaining the infrastructure; they are also responsible for planning and managing it.

Under NAWAPO, the Rural Water and sub-sector Sanitation has successfully developed an implementation model for replication countrywide. Capacity gaps were noted at district and regional levels, and will constitute a major challenge to sustainable water supply nationally. Capacity building starter activities are underway to strengthen Regional Secretariats in training and support foci for District Water and Sanitation Teams (DWSTs). Greater capacity building efforts are needed to strengthen the community, Facilitation Service Providers (FSPs) and the Technical Service Providers (TSPs) who also unfamiliar with NAWAPO community-based implementation methods.

1.7 Sanitation and Sewerage

Household surveys suggest that sanitation coverage (as measured by access to latrines) is as high as 90%. However, most latrines fail to meet MDG defined standards for sanitation. By MDG standards, coverage would be closer to 50%. Sanitation has failed to attract the required level of resources to address the issue adequately. When resources are available, they are commonly spent on technology and subsidies instead of on the necessary promotion, planning and skills development within the community.

Successful rural sanitation programming is rare in Tanzania and indeed across Africa. There are few implementation models to emulate.

Tanzanian urban growth rates are among the highest in the world. With improved water supply and increasing population densities, even the smaller towns with populations of 50,000 and above are reaching the point whereby inadequate wastewater removal and treatment is constraining economic development. Sewerage and sewage treatment is often more expensive than water Households and commercial establishments are reluctant to pay the cost of house connections for sewage removal and additional tariffs. Consequently, connection rates are slow even where sewer mains have been built and onsite disposal made illegal.

1.8 Stakeholder and Private Sector Participation

The private sector is actively participating in the water sector but is relatively weak (especially at the district level where it is most needed). Greater effort and resources for capacity building and quality assurance in the private sector is needed.

The historical approach to service delivery in which government agencies plan and implement works projects - undermines real community involvement in project planning and ownership; the process of bottom up implementation planning and needs strengthening. Women, the poorest populations and other marginal groups are sometimes left out of the planning and decision-making process.

Those entrusted to manage the newly established community water supply entities have little management experience, which will likely result in conflicts at the community level.

The Water Sector Development Programme (WSDP) opens new avenues for collaboration between sectors that have traditionally operated in isolation. Examples include the health, agriculture, forestry, and power sectors, and even the local government

itself. Substantial effort will be needed to ensure their active participation. Fortunately, devolution and NAWAPO policies offer real incentive and opportunities for participation and cooperation between sectors.

1.9 Strengthening and Establishment of Executive Agencies

Under the MoW, three executive agencies were envisaged. These were the Drilling and Dam Construction Agency (DDCA), the Water Resources Institute (WRI) and Maji The DDCA was Central Stores (MCS). established in 1998 while WRI and MCS are in the process of being established as executive agencies. The ultimate aim of the Agencies is to make them financially autonomous. Presently, the DDCA is not working at an optimum capacity due to dilapidated and outdated equipment, and inadequate management skills. The Private Sector capacity in the drilling industry is also not yet strong enough. The challenge is to strengthen and establish the Agencies in order to make them sustainable so that they can effectively support implementation of the programme. At present the three entities depend on government subsidy to carry out their operations.

2 Policy and Institutional Context

Ultimate responsibility for provision of water supply and sanitation services rests with the MoW. However, different central and local government departments and organisations have mandates to be involved in the provision of these services. In particular, the local government, be it at the city, municipal, town, township or district authority level, has varying levels of responsibility for providing services, and the Ministry of Health and Social Welfare (MoH&SW) has an overall responsibility for protecting public health through ensuring the provision of adequate sanitation and hygiene education by the local authorities. Other ministries include the Prime Minister's Office – Regional

Administration and Local Government (PMO-RALG) and the Ministry of Finance (MoF), which have administrative and financial relations with Regional Administration and Local Government Authorities (LGAs), respectively.

The MoW holds overall responsibility for water resources management. However, a number of other departments and agencies manage water resources according to their own mandates and needs, their own legislative provisions, with little coordination and integration towards holistic basin-wide planning and management.

Water supply and sanitation services in the 1990s were still inadequate despite major investments in the sector in the 1970s and 1980s, among others, due to inadequate community and private sector participation in implementation and management of water facilities. The Government prepared the first National Water Policy in 1991, to address the sector challenges; however, emphasis was put on the central government as the sole implementer and provider leading to unsustainable management and development of water resources. The policy was then revised in 2002, and introduced elements of devolution and public and civil service reforms. It is strongly influenced by national policy instruments that address issues of poverty and economic development, and incorporate water sector reforms as one of several related components which, when combined, offer a multi-sector approach to poverty reduction and economic growth.

Key policies such as the National Development Vision 2025 set the stage for the Poverty Reduction Strategy (PRS) and the Rural Development Policy (RDP), which were then supported by the local government Reforms. and Public Sector comprehensive review of the PRS led to the MKUKUTA, which sets operational goals and puts policy in a functional framework, which in the water sector is embodied in the National Water Sector Development Strategy (NWSDS) of 2006. The NWSDS sets out the strategy for NAWAPO implementation and in turn guides the formulation of sub-sectoral investment programmes, as inputs into the WSDP. The sector's strategy has guided the

preparation of the three components/subsector programmes: the Water Resources Management Programme (WRMP), the Rural Water Supply and Sanitation Programme (RWSSP), and the Urban Water and Sewerage Programme (UWSSP).

The WSDP consolidates the three components, and includes strengthening of the general administration of MoW; Drilling and Dam Construction Agency (DDCA) and the proposed Water Resources Institute (WRI) and Maji Central Stores (MCS) Agencies, using a Sector Wide Approach to Planning (SWAP).

The central policy instrument for all these sub-programmes is the NAWAPO 2002. The key lesson learned from previous experience is that, to achieve sustainability, water supply and sanitation facilities must be owned and managed locally by organisations that are both close to, and accountable to the consumer. NAWAPO recognises financing of water resources management (WRM) through the application of a Water User Fee, broadens the stakeholders' role in planning, operation and management in decision making, and promotes autonomy at the basin Experience shows that WRM functions in all the basins could be financed in the long run through the Water User Fee and other charges to meet the cost of regulatory functions at the basin level.

These principles are central to NAWAPO which embodies effective institutionalised linkages between key sector actors, including central government, local government, ESAs, sector, private non-government community-based organisations (NGOs), organisations (CBOs), and the communities. Under NAWAPO, the Government continues to provide the necessary technical and financial support, as well as coordination and regulation of water supply development The private sector provides activities. support to the communities in planning, design, construction and supply of materials, equipment, spare parts, and in some cases, operations. The Development Partners (DPs) and NGOs provide funding and technical assistance

In partnership with DPs and other key stakeholders, the Government has adopted a water sector SWAP, based on community-demand orientation, decentralised management through local governments and dedicated water user entities or authorities, combined with central government facilitation and delivery of services by the private sector.

SWAP brings together the three sub-sectors rural water supply and sanitation (RWSS), urban water supply and sewerage (UWSS), and water resources management (WRM) as three components of a single and comprehensive investment and regulatory regime. This approach is in direct response to the NAWAPO. In June 2003, preparation of the NWSDS started. This marked the start of a three-year transition period towards preparation of the WSDP intended to: (i) lay the foundations for a SWAP; (ii) prepare the necessary investment plan; (iii) build service delivery and water resources management capacity at all levels; and (iv) establish the necessary regulatory framework for sustained delivery of water supply services countrywide.

3 Water Sector Development Programme

3.1 Programme Consolidation

The WSDP is a consolidation of the three sub-sector programmes included in the SWAP - water resources management, rural water supply, urban water supply and sewerage. MoW first prepared a draft consolidated document describing important programmatic content envisaged under the WRMP, RWSSP, and the UWSSP. draft WSDP was presented to stakeholders for comment, after when it was processed into being the final programme. It is anticipated that this consultative process will enhance the success of WSDP implementation, including coordination of activities donor-financed through established Development Partners' Group -Water (DPG - Water) and Water Sector Working Group.

3.2 Programme Objectives

Tanzania's Development Vision 2025 aims at eliminating abject poverty and attaining a high quality of life for all people by 2025. Water resources management and water supply, sanitation, feature prominently in the Development Vision, whose specific targets include increasing access to safe water to 93% by 2025. Water resources management aims at developing a sound water resources management and development framework in all nine water basins, for optimising utilisation of the water resources in a sustainable manner for the various competing uses Intrinsic to the overall goal are the objectives of equity of access, good water resource management, proper maintenance of water and sanitation systems, use of environmentally sound technologies, effective water tariffs, billing and revenue collection mechanisms. In the shorter term, MKUKUTA sets targets for 2010 while committing Tanzania to achieving the MDGs for access to safe water, sanitation and a sustainable environment by 2015.

Specifically, WSDP objectives include:

- Water Resource Management: objectives of the WRM component are to (i) develop a sound water resources management and development framework in all nine water basins, and (ii) promote good governance of water resources through empowering the water users, encouraging participatory transparent decision making, developing ownership to the user level, and granting secure water rights with responsibilities to the water users, community groups, local government and Basin Boards. The MKUKUTA targets for water resource management include: reduction of water-related environmental pollution levels from 20% in 2003 to 10% in 2010; and integrated water resources management operational in all basins by 2010.
- Rural Water Supply and Sanitation:
 Towards improving access to potable water supply in compliance with MKUKUTA, MDG and Tanzania's

Development Vision 2025 targets, the Programme aims to increase coverage in water supply in rural areas and small towns (below 50,000 inhabitants) from 54% in 2005 to 65% by 2010, 79% by 90% 2015 and to by 2025. Improvements to quality and quantity of drinking water and sanitation services will be sustained through district level capacity, effective local water user entities, private sector participation and good health, hygiene, and sanitation practices.

In all, the RWSS component will provide services to an additional 8.0 million people by 2010 and 33.8 million people by 2025.

Urban Water Supply and Sewerage: In urban populations, the WSDP objective is to improve and sustain the quality and quantity of drinking water and sewerage services. Existing UWSAs will evolve into bodies that are financially autonomous and commercially viable so that they are capable of providing efficient and cost-effective services to all sections of the community in their supply Specifically, the UWSS component aims to increase access to clean and safe water from 74% in 2005 to 90% by 2010, to 95% by 2015; and to 100% by 2025. Sewerage service coverage will be raised from 17% in 2003 to 30% by 2010 and to 100% by 2025. In all, the UWSS component will provide services to an additional 4.6 million people by 2010 and 15.0 million people by 2025.

In general, the water supply service to achieve MKUKUTA targets, a total of 12.6 million additional people will benefit, while for MDG targets, further 11.5 million people will benefit. In order to meet the Development Vision, a further 24.7 million will benefit from the improved water supply.

Implementation of the Programme will be supported by the executive agencies, which will be strengthened/established to improve their financial and commercial performance.

3.3 Programme Components

The WSDP is designed under SWAP, to improve water resource management primarily through strengthening the country's nine Basin Water Offices (BWOs), to address shortfalls in urban and rural water supply infrastructure, and to strengthen sector institutions and their capacities.

A set of Operational Guidelines and Manuals have been prepared on sub-sector basis to guide the implementation process of sub-sector specific issues. Likewise, a consolidated Programme Implementation Manual has also been prepared to guide implementation.

3.3.1 Water Resources Management

The WRM component comprises three subcomponents: (i) basin-level water resources reforms and investments; (ii) national water resources reforms and investments; and (iii) national cross-sectoral investment programme.

Basin-level implementation is the most extensive aspect of the WRMP, focussing on establishing and strengthening of nine BWOs. In addition to support for the staffing and physical infrastructure of the BWOs, considerable attention is given strengthening capacity their in water monitoring, resources assessment Other activities include: enforcement. protection of important water sources; water management; strengthening legislation and enforcement; integrated water resources planning and water security including dam construction; trans-boundary water body management; and a variety of cross-cutting activities including disaster management, public awareness, inter-agency networking and establishing a water resources management information system.

At the national level, MoW will be strengthened through recruitment and training of staff, provision of equipment, creation of a national water resources information centre, and technical collaboration on research, dialogue and information exchange with coriparian states. Drought, flood and manmade disaster (chemical or petroleum spills) management capabilities will be strengthened. Early warning systems will also be established.

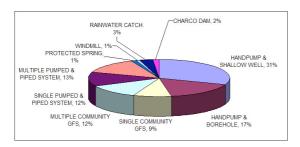
Also a national communications and awareness programme will be developed as a cross sectoral activity to strengthen harmonisation and coordination of water resources plans and policies among key related sectors and stakeholders. A National Water Board to be established under the framework of NAWAPO, will provide sectoral integration in key decisions about water resources management in the country.

3.3.2 Rural Water Supply and Sanitation

Towards the overall objective of the RWSS component, an additional 33.8 million people will be provided with new access to potable water supplies by 2025, bringing overall rural coverage to 90% country-wide. The RWSS component encompasses three main areas of work:

- District management support through district implementation, including: creation and strengthening of DWSTs to enabling them prepare district RWSS plans, and appraise sub-projects proposed by communities; establishment of a district funding mechanism to finance new rehabilitated water supply and sanitation facilities; and provision of adequate office space, furnishings, equipment, supplies and transport to accommodate coordination and monitoring of RWSSP component.
- Investment in community-based water and sanitation sub-projects: Conditional grants are being allocated to RWSS projects proposed by communities themselves for drilled wells, boreholes with hand pumps, piped systems using pumped water from boreholes or gravity-fed water from springs, and latrines. The DWSTs employ local NGOs and firms as FSPs and consultant engineers as TSPs for design and construction supervision. A supply chain that includes private retail outlets

is being established to distribute spare parts for hand pumps. Participating communities provide cash contributions varying between 2.5% and 30% of subproject capital cost, depending on the technological option adopted, and prepare facilities and management plans that emphasize financial and operational sustainability. Community sub-projects include training in proper operation and maintenance of facilities; and promotion of hygiene, sanitation and HIV/AIDS mitigation and prevention.



 Institutional strengthening and development at the national level, including: a stakeholder consultative technical process; assistance support to project management; a webbased Management Information System (MIS) to link all districts, track coverage, sub-project progress, and learned. institutional lessons MoW, within and restructuring stakeholders strengthening, including FSPs, TSPs, goods and services suppliers, Districts, Regional Secretariats and MoW.

The pace of work under the RWSS component will be determined by available resources and the performance of district and village/user-community authorities. Twenty-four (24) districts have had a "head start", having begun implementation of the RWSSP through different initiatives.

3.3.3 Urban Water Supply and Sewerage

The MoW will take the lead role in facilitating implementation of the UWSS component, which is comprised of three main sub-components: (1) capital investment for Dar es Salaam Water and Sewerage Authority (DAWASA) and UWSAs; (ii)

management and operations support at UWSA level; and (iii) capacity building at national and UWSA levels. Specifically:

- Infrastructure improvements are needed in all existing 19 UWSAs and DAWASA. Priority will be given to towns that have not previously received significant donor funding and urgently require assistance to upgrade their water supply and sanitation systems. Requirements include refurbishment, upgrading and extension to existing water supply systems including source development and in some treatment plants. Improved sewerage facilities will be needed in all towns as they increase in size and their water supply systems expand. Sanitation studies are recommended for most towns and are expected to recommend expansion of wastewater collection and treatment facilities for those towns that currently have sewerage networks and the development of limited wastewater collection and treatment facilities in towns that currently have no sewerage networks.
- The UWSS component will also implement new institutional framework. **UWSAs** are to be transformed into WSSAs (Water Supply and Sanitation Authorities), which will be licensed and regulated by Energy and Water Utilities Regulatory Authority (EWURA). Each Authority will be managed by a Board. Separating the regulatory, management and monitoring functions will enable **Boards** concentrate on promoting viable commercial entities, while the regulator will ensure efficiency and equity. Consumer Consultative Councils will protect the welfare of the communities.
- the UWSS component will strengthen capacity in existing UWSAs and the future WSSAs and EWURA, in areas including: management under key performance indicators; commercial management and staffing; outsourcing of certain functions to the private sector; benchmark networking; technical aspects (in particular demand forecasting, water resources

development planning, control of unaccounted-for-water, water quality management, network analysis, network mapping and strengthening connection metering); and financial/commercial areas (tariff setting and billing systems, control over operating costs and aging and the acquisition of arrears, investment funding). Where possible, weaker utilities will benefit from with stronger twinning ones. Ultimately, all authorities will be become commercial required to organisations with increasing responsibility for meeting their own operation and maintenance costs and capital investments. This will require raising tariffs while getting a better understanding of the willingness and ability to pay and assisting the poor differential charging, through introducing modern billing systems, full ownership of assets, better management of customer debt, and capital investment through grants and loans.

In all components, guidelines and manuals have been prepared to guide implementation.

3.4 Water Sector Institutional Strengthening and Capacity Building

Implementation of the WSDP would be done at different levels from sub catchments, through district and basin levels, up to the national level. The institutions and personnels at these levels will be strengthened to provide effective administrative support for the programme implementation. Strengthening will include, among others, office construction, rehabilitation, training, provision of office equipment, MIS and transport.

Since 1998, the MoW's units that were identified for executive agencies are the Drilling and Dam Construction Agency (DDCA), Water Resources Institute (WRI) and the Maji Central Stores (MCS). Ever since, DDCA is operating as an Executive Agency while WRI and MCS are to be established. The ultimate aim of

establishment of executive agencies is to change them into being autonomous and financially independent, and therefore graduating from Government subsidy. To effectively strengthern the DDCA and MCS, thorough studies and reviews will be conducted to define best options for supporting implementation of WSDP. For the Water Resources Institute, the study will be broadened to reflect the broader question of human resources planning and development for the sector and the role of the Institute in the implementation of WSDP. It is planned that DDCA and MCS will be financially autonomous by year 2010, while the WRI shall become financially autonomous by year 2015.

3.5 Safeguard Policies

The WSDP will trigger three safeguard policies, namely Environmental Assessment; Involuntary Resettlement; and International Waterways. The Environmental and Social Management Framework provides a strategic guide for the integration of environmental and social considerations in the planning and implementation of the WSDP activities including issues related to International Waterways. The Resettlement Policy Framework aims to protect impacts due to resettlement involuntary from implementation of the WSDP activities. The policy requires that the implementation of individual resettlement and compensation prerequisite are a for implementation of Programme activities causing resettlement thereby ensuring that resettlement and compensation is in place.

4 Costs and Financing

4.1 Costs

The total cost of the water resources management, rural and urban water supply components of the Water Sector Development Programme is estimated at TZS 4,207,980 million (USD 3,366.38 million), to be invested over the 2006 – 2025 timeframe.

The costs, including contingency allowance, comprise the following:

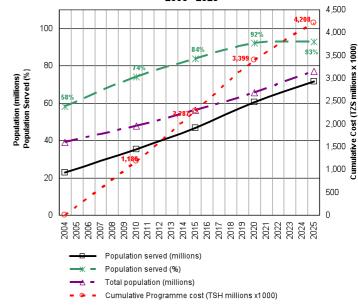
- The cost of the WRM component is estimated for the 2006 – 2025 period at TZS 416,600 million (USD 333.28 million). Of this, about 80% will be invested in basin-level activities, while the remainder is allocated to national and cross-sectoral activities by MoW.
- The RWSS component also covers the 2006 2025 periods, addressing the timeframe encompassed by Development Vision 2025. During this period, overall investment requirements to achieve the above objectives in rural water supply and sanitation coverage are estimated at TZS 2,054,120 million (USD 1,643.30 million).
- component UWSS calls investments for construction of physical works for individual UWSAs as well as investments for capacity building projects designed to strengthen the capacity of MoW and the UWSAs to operate, maintain and develop the urban water supply and sewerage systems. Investment requirements up to 2025, total TZS 1,392,620 million (USD 1,114.09 million).
- Water Sector Institutional Strengthening and Capacity Building is estimated at a total of TZS 180,770 million (USD 144.62 million).

Water Supply Coverage vs Programme Cost

PROGRAMME COMPONENT	2006	2006 - 2010	2011 - 2015	2016 - 2020	2021 - 2025	Total	
Population Vs. Coverage (Million)							
Served by WSDP		12.6	11.5	13.7	11.0	48.7	
Cum. Served by WSDP		12.6	24.1	37.8	48.8	48.8	
Cum. Total Served	22.8	35.4	46.9	60.6	71.6	71.6	
National Pop.	39.1	47.7	56.1	65.6	77.1	77.1	
Coverage Rate (%)	58%	74%	84%	92%	93%	93%	
Cost (Tzs Million X 1000)							
Total		1,188	1,098	1,112	808	4,208	
Cumulative		1,188	2,287	3,399	4,208	4,208	
Cost (USD Million)							



Figure ES1: Water Supply Coverage vs. Programme Cost, 2006 - 2025



Specifically, the categories include the following types of expenditures:

- Capital Investment [TZS 3,487,960] million (USD 2,790.37 million)]: The major portion of investment requirements is allocated to capital costs programme within three components, including: water resources management, rural water supply and sanitation and urban water supply and sewerage systems; building construction and rehabilitation; water resources network upgrading and rehabilitation as as water quality laboratory upgrading, office furniture, equipment and computers; vehicles; and technical equipment.
- Management and Operational Support [TZS 375,370 million (USD 300.30 million)]: These costs relate largely to district operational support under the RWSSP and basin-level operational support under the WRMP (no such support is envisaged under the UWSSP), including: vehicle operations, travel expenses, staff salaries support, and other items.

• Water Sector Institutional Strengthening and Capacity Building [TZS 180,770 million (USD 144.62 million)]: All three programme components include investment in capacity development of various kinds at district, basin, UWSA, regional, national level and cross-sectoral levels.

A contingency of TZS 163,870 million (USD 131.10 million) has been included.

4.2 Financing

Estimates provided in the three programme documents (WRMP, RWSSP, UWSSP) indicate that a total of approximately TZS 2,975,930 million (USD 2,380.74 million) might be available. These include government central budget allocation, rural community and small town contributions, district contributions, water resource revenues, and NGO and donor funds, among others. Thus, in order to carry out the scope of activities envisaged under the WSDP, a financing gap on the order of TZS 1,232,050 million (USD 985.64 million) is to be filled required over the 2006 – 2025 period.

In this context, the WRMP investment plan proposes that water use revenues will grow from about TZS 661.0 million (USD 0.53 million) per annum in 2006 to approximately TZS 12,500 million (USD 10.00 million) per annum over a ten year period, or by 2015. Beyond this, though not discussed in the WRMP report, revenues are assumed to grow at least in pace with 3% inflation.

Government allocations to the sub-sector, estimated at TZS 2,740 million (USD 2.19 million) in 2006 are projected to grow to TZS 4,020 million (USD 3.22 million) by 2010.² Beyond this period, though not discussed in the WRMP report, government allocations are assumed to be sufficient to meet the financing gap between water

resource management costs and anticipated revenues. In this case, the requirement for government allocation actually decreases beginning in 2016 as revenues increase over time.

These assumptions result in financing gap of TZS 26,910 million (USD 21.53 million) over the 2006-2025 period, after which no further external financing (loans or grants) would be required. It is expected that some of the BWOs will become fully autonomous and accountable basin entities by year 201

WSDP in respect of RWSSP will cost a total of TZS 2,054,120 million (USD 1,643.30 million) over the programme period from 2006 to 2025. Government allocations to the rural water sector are estimated to grow from TZS 2,460 million (USD 1.97 million) in 2005 to TZS 7,800 million (USD 6.24 million) by 2007. Beyond this period, government allocations are assumed to increase at 5% per annum. communities are expected contribute an average of 5% to capital costs of the RWSSP, totalling TZS 91,260 million (USD 73.00 million) over the period 2006 - 2025.³

Other funding, from NGOs and external donors are estimated for this same period at TZS 1,042,020 million (USD 833.61 million). These assumptions result in an estimated TZS 1,325,860 million (USD 1,060.69 million) in available resources over the timeframe of the RWSSP. Given this, the financing gap between available resources and estimated RWSSP costs is estimated at TZS 728,260 million (USD 582.61 million) over programme timeframe.

The total financial resources required for UWSSP is TZS 1,392,620 million (USD 1,114.09 million) over the programme period to 2025.

Resources identified as likely to be available for capital projects are estimated at approximately TZS 1,186,020 million

WSDP 2006

¹ WRMP February 2006, Figure 10.1

² WRMP February 2006, Table 8.4.

³ RWSSP 2006, Table 5.14

(USD 948.81 million) over the 2005 - 2025 period⁴.

The financing for the ongoing DAWASA project includes: Government contribution of USD 12.6 million, IDA USD 61.5 million, ADF USD 48.0 million and EIB USD 34.0 million). A total of USD 60.45m has been disbursed and USD 59.33 expended leaving available balance of USD 104m as of June 2006.

WSDP will strengthen and develop the water sector institutions as well as personnel at different levels. This component will contain the following subcomponents:

- Operationalisation of new roles of the MoW including strengthening of executive agencies;
- Technical assistance for sub-sector planning;
- Sector coordination and performance monitoring; and
- Sector capacity building and training.

The total resource requirement for institutional strengthening and capacity building for the period 2006 – 2025 is TShs. 180,770 million (USD 144.62 million). Resources likely to be available are estimated at TZS 74,360 million (USD 59.49 million). Therefore the financing gap is estimated at TZS 106,410 million (USD 85.13 million).

Sustainable implementation of the WSDP requires holistic planning and financing, mechanisms stable financial availability of adequate funds for capital investments for infrastructure expansion, rehabilitation and water resources management. This also requires appropriate channelling of the resources to the prioritized needs. Indicative percentage proportion of funds to sub-sectors are 50:20:15:15,⁵ to RWSSP, WRM, UWSSP

⁴ UWSSP - SIP March 2006, Table 4.11

and cross cutting aspects (planning, accounting, general administration and executive agencies), respectively. The proportions may change in accordance with circumstances at the time.

Financing Requirements: 2006 - 2025 (USD Million)

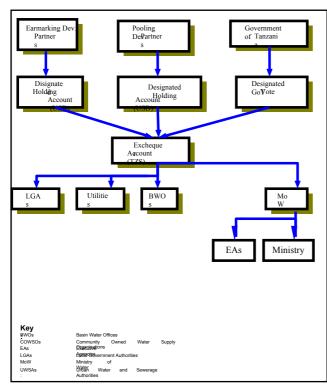
PROGRAMME COMPONENT	2006 - 2010	2011 - 2015	2016 -2020	2021 - 2025	Total	
Programme Cost						
Component Cost	951.08	878.79	889.72	646.79	3,366.38	
Cumulative Cost	951.08	1,829.87	2,719.59	3,366.38	3,366.38	
Available Resources						
Government Allocation	126.09	90.82	80.80	47.91	345.62	
Water Resources Revenues	9.12	35.58	39.13	43.05	126.88	
Community Funding	13.60	16.32	19.58	23.50	73.00	
UWSA Revenues	11.20	13.44	14.78	16.26	55.69	
Other Funding (Donors, NGOs, etc)	700.00	482.54	364.23	232.78	1,779.55	
Total Available Resources	860.01	638.70	518.54	363.50	2,380.74	
Cumulative Available Resources	860.01	1,498.71	2,017.24	2,380.74	2,380.74	
Financing Gap						
Financing Gap	91.07	240.09	371.19	283.30	985.64	
Cumulative Financing Gap	91.07	331.16	702.35	985.64	985.64	

4.3 Channelling of Funds

The main source of financing is expected to be from development partners. Funds from development partners will be channelled through the Ministry of Finance (MoF) under the General budget support, and then will flow in two ways: first from MoF to implementers: programme namely BWOs, LGAs, UWSAs and Executive Agencies. Secondly, financing of MoW's monitoring activities will be channelled from MoF to the MoW. Accountability procedures including monitoring and reporting will be as specified in the Medium-term Expenditure Framework (MTEF) execution procedures, based on government public financial management acts and other programme implementation operational guidelines.

⁵ Proceedings of Stakeholder Retreat on Sector Wide Approach to Planning in the Water Sector, MoWLD, Arusha, May 2003

Flow of Funds to Implementing Agencies



5 Institutional Arrangements

The National Water Policy has prescribed new roles for different players in the water resources management and provision of water supply and sanitation services. The policy guide in NAWAPO is based on six key principles: the Government's role should be limited to coordination, policy and guideline formulation and overall sector regulation. Implementation management and executive functions will be decentralised to the lowest appropriate level, while balancing consumer representation/participation with economies of scale. Responsibility for regulation will be separated from prioritisation and allocation of capital investment funds. Autonomous entities will be established to manage water supply and sewerage services in urban areas; and community organisations will own and manage rural water supply schemes.

This shift in policy direction calls for adoption of a more effective institutional

framework for the provision of water and sanitation services to rural and urban population. Equally important, the institutional framework for water resources management will be streamlined to meet the challenges of effective integrated water resources management, including financial autonomy at basin level.

The current institutional framework for WRM falls short of meeting the challenges of effective management of the resources and in providing an adequate mechanism for effective consultation and consensus building, and participation of stakeholders in the planning, design, operations, and management decision-making processes.

The lack of an effective institutional framework for management of water supply and sanitation services in rural areas has led overlapping roles among institutions; inadequate co-ordination among various agencies and inadequate communication and awareness building between these agencies and local organisations and water users.

Since establishment of UWSAs, the Ministry of Water has continued to play a major role in their organisation and management in accordance with a Memorandum of Understanding (MoU) and Operational Guidelines. While these interventions have been helpful in guiding development and management of the Authorities in their formative years, they ultimately restrict opportunities for the UWSA Boards and management to provide leadership in the way the Authorities are managed.

The role of central government, through the Ministry responsible for Water, will be that of co-ordination, support and capacity building, monitoring and quality assurance, policy and guideline formulation, and regulation. The current responsibilities for the provision of water supply and sanitation services would be transferred to successor organisations. The LGAs will have responsibility for public service provision including water and sanitation in the future.

The WRM and WSS institutional frameworks will be based on the following principles:

- responsibility for the provision of water supply and sanitation services is to be held by local government authorities;
- clustering of water supply and sanitation services under the responsibility of adjacent local government authorities should be aimed at commercial viability;
- legal transfer of assets to water and sanitation entities should be done while ensuring that communities are protected against confiscation and asset stripping;
- capital investment financing, and operational support through local government should be separated from regulation and performance monitoring;

- tariffs should be linked to performance as part of the regulatory function; and
- water basin offices should be transformed into autonomous bodies.

The institutional framework for the WRM will incorporate new institutions to facilitate harmonious integration and participation of all stakeholders. These will be the National Water Board, Basin Water Boards, Catchments Water Committees and Water User Associations or Groups.

Functions and Responsibilities for Water Resources Management

Organisation	Functions and Responsibilities
Minister responsible for Water	 presents national policy and strategy to the Government; ensures policies and strategies are implemented; appoints Chairman and members of Basin Water Boards; and determines appeals from all levels in framework
Ministry responsible for Water	 supervises Water Resources Institute (Agency); supervises Drilling and Dam Construction Agency; sectoral co-ordination, monitoring and evaluation; policy development and review, including legislation and financing; formulation of technical standards and WRM guidelines; trans-boundary issues; dam safety; monitors and evaluates Basin Water Boards; supervises and co-ordinates data collection and resource assessment, and Basin Water Boards; technical standards and guidelines; monitoring & evaluation of Water Boards; and conflict management and Technical support to basin boards.
National Water Board	 integrates inter-sectoral planning; co-ordinates basin planning and management; resolves inter-sectoral / inter-basin conflicts; and determines investment priorities and financing patterns.
Basin Water Boards	 data collection, processing and analysis for WRM monitoring and resource assessment; technical aspects of trans-boundary issues in the basin; co-ordinate and approve basin WRM planning / budgets; approve, issue and revoke water use and discharge permits; enforce water use permits and pollution control measures; co-operate between sectors at the local level; resolve conflicts and co-ordinate stakeholders; and integration of district plans on WRM.
Catchment / Sub- catchment Water Committees	delegated responsibilities from Basin Water Board.
Water User Associations	manage allocation of water resources at local level;

Organisation	Functions and Responsibilities		
	manage equitable allocation of resources during drought; and		
	mediate in local disputes.		
Regional Secretariat	representation on Basin Water Boards.		
District Councils	representation on Basin Water Boards;		
	representation on Catchment Committees;		
	formulate and enforce bylaws for environmental protection and		
	conservation of water sources;		
	• promote efficient water utilisation and control; and		
	preparation of district plans for water resource demand.		

The institutions for the provision of water supply and sanitation services are of three types: "Clustered" WSSAs; Service Providers; and Community Owned Water Supply Organisations (COWSOs). Regulation of the WSSAs and Service Providers will be done by EWURA, while regulation of the COWSOs will be by the Ministry responsible for Water, through delegation to local authorities.

Functional Responsibilities for WaterSupply, Sewerage and Sanitation

Organisation	Functions and Responsibilities
Minister responsible for Water	 presents national sector policy and strategy to Government; ensures policies and strategies are implemented; appoints chairman and members of the WSSAs boards; and appoints chairman and members of the EWURA board
Ministry responsible for Water	 policy and strategy development; advises EWURA in formulation of technical guidelines and standards; co-ordinates planning for projects of national importance; secures finance for projects of national importance; monitors service performance and regulate COWSOs; provides technical guidance to Councils; monitors technical performance of WSSAs and DAWASA; provides technical support, guidance and monitor major capital works to WSSAs; and coordinates and monitor WSSAs plans.
Water Supply and Sewerage Authorities	 own, manage and develop water supply and sewerage assets; prepare business plans to provide water supply and sewerage services, including capital investment plans; secure finance for capital investment, and relevant subsidies; contract and manage Service Providers; and provide services not contracted out.

Organisation	Functions and Responsibilities
Service Providers	provide water supply and sewerage services in accordance with contractual requirements:
	contractual requirements;collect revenues for services;
	Construction of water sector infrastructures;
	Provide Consultancy services;
	Supply of goods; and
	 Training of communities in water related aspects.
Community Owned Water	
Supply Organisations	 own and manage water supply assets; operate and maintain water supply assets;
Supply Organisations	determine consumer tariffs;
	collect revenue for the provision of services; and
	contract and manage Service Providers.
Engage and Water Hallities	
Energy and Water Utilities Regulatory Authority	approves business plans or wiseris,
Regulatory Authority	 issues operating licences to WSSAs; approves service tariffs;
	11
	 publishes technical guidelines and standards; monitors water quality and service performance of WSSAs; and
Daines Minister's Office	contents and parameters compared to performance data.
Prime Minister's Office - Regional Administration	co-ordinates planning of projects from local government authorities; co-ordinates local government authority budgets; and
and Local Government	co ordinates rocar government authority budgets, and
	co ordinates capacity outlaing for local government authorities.
Regional Secretariat	• representation on WSSA Boards;
	• provides technical advice and support to local government authorities; and
	supervises and monitors local government authorities.
City, Municipal, Towns	• provide representation on WSSA Boards;
and District Councils	• co-ordinate WSSA plans within Council plans;
	• delegate performance monitoring and regulation of COWSOs;
	• delegate technical performance monitoring of WSSAs;
	provide and/or promote on-site sanitation; and
	formulate by-laws concerning water supply and sanitation.
Village Councils	• promote establishment of COWSOs;
	provide representation on COWSO management body;
	co-ordinate COWSO budgets within Council Budgets;
	resolve conflicts within and between communities; and
	formulate by-laws concerning water supply and sanitation.
Ministry responsible for	 develops policy, guidelines and strategies for sanitation;
Health	• provides technical assistance to councils for sanitation;
	prepares Acts, Regulations and Standards for sanitation; and
	• monitors, regulates and provides support and advice to councils and other
	stakeholders on sanitation issues.

6 Monitoring and Evaluation

The framework for the Monitoring and Evaluation (M&E) system for the WSDP takes into account the existing national

framework for monitoring and evaluating progress in poverty alleviation, development and the water sector. This national framework includes a national Poverty Monitoring System (PMS), a Joint Assistance Strategy (JAS) M&E system and M&E systems used by development partners.

The JAS overall objective is to contribute to sustainable development and poverty reduction by consolidating and coordinating government efforts and development partners support. Development partners have recently set up a Development Partners' Group – Water (DPG-Water) as a result of discussions concerning the JAS. One of its functions is monitoring of sector performance.

The structure for the water sector dialogue as put forth by DPG-Water is based on a High Level Forum, a Water Sector Working Group and several Thematic Working Groups. Each has a specific role with regard to M&E of water sector developments, including the WSDP.

The primary role for M&E in the WSDP rests with the MoW, that will produce an Annual State of the Water Sector Report covering all aspects of the sector. The report shall be discussed by the WSWG and the Joint Water Sector Review. This report will, together with Resources Tracking Studies and Technical and Financial Audits, form the basis of Joint Water Sector Reviews and input into the Annual MKUKUTA performance reviews.

Other key entities performing M&E activities for the WSDP will be: Basin Water Offices; EWURA; UWSAs/WSSAs, RWSTs, LGAs and their District Water and Sanitation Teams, and MoW Executive Agencies.

The essential components of the M&E framework for the WSDP are: (i) the use of a results-based Logical Framework Analysis (LFA) and Performance Measurement Framework (PMF) and (ii) Management Information Systems (MIS).

A results-based management approach for monitoring and evaluation uses the LFA and associated PMF. A baseline study will be carried out at the start of the WSDP to obtain the necessary baseline data for the LFA and

PMF. The baseline study will be a collaborative effort for information gathering that will make efficient use of resources so that information can be used by various entities involved in M&E activities.

The final M&E system design will ensure that maximum use is made of existing data collection and monitoring systems such as the Household Budget Survey, Demographic and Health Survey and Population and Housing Census that are used as part of Tanzania's Poverty Monitoring System.

One of the tools that will be used to monitor and evaluate the success of the WSDP will be MIS, which will be used to collect, store, analyse and disseminate information and data on the WSDP water resources management networks and sub-projects. An MIS has already been successfully developed and is being tested for the RWSS component in selected 12 districts.

The MIS is part of the planning, management and monitoring system, and incorporates the tracking of performance indicators for RWSS component sub-projects. It includes an information storage database, systems for tracking sub-projects, and digitisation of documentation.

Lessons learned from the experience will be incorporated into the expansion of the RWSS component MIS to all districts in Tanzania, and for development of systems for other components of the WSDP, including the UWSS and the WRM components.

7 Sustainability

Tanzania's water sector received major ESA investment and technical assistance during the 1970s and 1980s. With some notable exceptions, most infrastructures were not backed by long-term O&M support. Many facilities have fallen into disrepair and have since been abandoned. The key lesson learned is that to achieve sustainability, water supply and sanitation facilities must be

owned and managed locally by organisations which are both close to, and accountable to the consumer. Long-term sustainability is only achieved through ownership by the usercommunities and their assumption of responsibility for long-term management and maintenance. This can only be achieved if the responsible organisation at the community level is trained and empowered, and contributes meaningfully at all stages of water resource conservation. planning. design, implementation and long-term maintenance and repair of installed facilities.

The primary purpose of sustainability concept is to have sustained water resources, water supply service and sanitation service delivery, as well as value for money. Capital investments made in the WSDP shall be owned and managed sustainably. Sustainability starts from the inception stage, planning process, implementation stage, establishment of water user entities, up to commissioning of sub-projects. Following commissioning of sub-projects, service regulation has a considerable influence in the sustainability of the installed facilities.

7.1 Water Resources Management

The sustainability of water resources management is enhanced through five principles for sustainability embodied in NAWAPO, as follows:

- Subsidiary: Water basins will be the units of operational water resources management. Operational decisions will be decentralised to the basin offices. A Basin Water Board that represents various water user communities in the basin will oversee each basin office and undertake management actions and decision-making.
- **Separation**: Resource management and regulatory functions have been separated from service delivery functions in the revised institutional arrangements.
- Comprehensiveness: A holistic basin approach is being taken for integrating multi-sector and multi-objective planning and management that minimises the effects of externalities, and ensures sustainability and protection of the resource. A restructured National Water

Board will provide oversight of the water offices. The MoW will be responsible for policy issues and provide technical support to Basin Offices and Boards. Improved coordination with other water-related sectors will be promoted at both national and basin levels.

• Sustainability: Water resources will be utilised within sustainable limits (safe yields of surface and groundwater and assimilative capacities for discharge of pollutants) to minimise the effects of externalities of investment decisions on water quantity and quality, to ensure protection of the water resource, and to better incorporate environmental issues such as environmental flows and habitat protection, into management decisions.

Economic value: Decision-making in the public sector, private sector and in civil society on the use of water will reflect the scarcity value of water, water pricing, cost sharing, and other incentives for promoting the rational use of water. Charges will be strengthened through the law, for use of raw for urban supply, irrigation, hydropower generation and other uses, and for issuing licenses for discharge of pollutants. Income from water-use levies and pollution discharge licenses will be retained within the basins and used to support costs of managing basins' water resources sustainably.

7.2 Rural Water Supply and Sanitation

Sustainability of the rural component will hinge on five main elements: policy; institutional and legal; financing; system management; and integrated water resource management. A sustainability strategy is required that addresses these main elements in a comprehensive way.

The programme envisages 48% of all rural water supply schemes to apply hand pump technology. In order to sustain this type and volume of schemes, a supply chain of hand pumps and spares already established in three regions shall be expanded to cover the rest of the regions. The hand pumps and spare parts will be required at project area which is the lowest level of the implementation arrangement so as to ensure sustainability of the programme as a whole.

The continued supply and stocking of the hand pumps and associated spares would be required at different levels with centres being well established to accommodate the demand. The centers will deal with stocking and supplying different spares of hand pumps and spareparts. The centers will be run by the private sector and owners trained to improve their capabilities of undertaking the activities. Appointed and certified Technicians will be trained for construction of hand pump platforms, installation of hand pumps and providing repair services as well as to train village caretakers, and carry out periodic inspection at each outlet center.

7.3 Urban Water Supply and Sewerage

The National Water Policy on urban sub sector aims at achieving sustainable, effective and efficient development and management of urban water and sewerage services. This will be attained by providing a framework in which the desired targets are set outlining the necessary measures to guide the entire range of actions and actors with a view of improving the quality of service delivery, sustainably.

Water supply services should be available to all people living within the designated urban area of the wider service area of the authority, which is normally defined as the urban census district.

The levels of service to be provided within the main urban area shall be in accordance with operational guidelines.