1. Country and Sector Background

Water Resource Management (WRM). Overall, Tanzania has sufficient surface and ground water to meet its present needs, but availability of water is uneven among regions, and in some river basins, water is becoming scarce and a source of conflicts. Major urban centre such as Dar es Salaam have water supplies with inadequate storage which makes them vulnerable to both drought and floods. Conflicts between the water supply, energy, livestock and agricultural sub-sectors are growing. Soil erosion and sediment deposition that result from poor land use have modified runoff patterns, damaged WSS and irrigation infrastructure and degraded quality of water used for urban supplies. The implications of poor land use are significant in the semi-arid and arid internal drainage basins. Pollution from inadequately treated municipal, industrial and mining effluents and agricultural runoff is contributing to the degradation of river quality and eutrophication of Lake Victoria as well as the Mzimbazi Creek in Dar es Salaam. Uncontrolled land use and river regulation have degraded hydrologically important and productive wetland systems. Poor flood control management has resulted in damage to major infrastructure, including the water pipelines supplying Dar es Salaam. Groundwater
pumping is uncontrolled and this has a strong potential for causing irreversible damage through saltwater intrusion. Weak policy framework, fragmented water resources management, poor cross sectoral coordination, inadequate participation of stakeholders in river basin planning, inadequate treatment of water as an economic good and to a lesser extent uncoordinated donor support are key issues to address.

Urban WSS. In 2001, about 70% of the urban population of 6.0 million had some kind of access to piped water. At the beginning of 1997, urban water systems managed by the then Ministry of Water (now MWLD), were handed over to independent and autonomous Urban Water and Sewerage Authorities (UWSAs). Local Boards set consumer tariffs and UWSAs are expected to meet O&M costs; however, most UWSAs still rely on MWLD staff and subsidies to cover them. The service is still unreliable and the water delivered often unsafe for drinking. Maintenance is rarely funded due to low tariffs. Commercial and financial performances are slowly improving. Less than 10% of the urban population is connected to a sewerage system. Another 10%, mostly in the middle and upper-income group use septic tanks, leaving the rest of the population dependent on pit latrines. Sanitation services are largely in the hands of the various municipal councils but sewerage operations, when they exist, are under the UWSAs. Due to poor maintenance, most sewerage and waste water treatment facilities are not functioning. Pit emptying services are often inadequate, and health risks result from manual emptying most latrine users resort to. Cholera outbreaks are common in most urban centers.

Rural WSS. Large scale rural WSS schemes have traditionally been supported by external donors since the 1950s. These programs have suffered from limited community participation in the planning of facilities and community financial contribution to both O&M and capital costs. After three decades of a "supply driven" approach, only 50% of the rural population is served by a functioning system. As a result, most of the rural population still obtains its water from unprotected sources of doubtful quality; during the dry season, women may have to walk long distances to fetch water. Information on rural sanitation is limited; only a part of the rural population has access to traditional pit latrines and incidence of water borne diseases is high.

GOT Strategy

WRM. GOT has adopted a phased approach to address WRM challenges. In 1993, it prepared a rapid water resources assessment which identified priority basins and a range of issues at the national level requiring special attention. Since 1994, GOT has restructured MWLD and changed its role from that of a service provider to that of a regulator and a facilitator. GOT is currently implementing the IDA financed River Basin Management and Smallholder Irrigation Improvement Project, which also provides for the development of a WRM sections of the National Water Policy. Through GEF/IDA support, and in conjunction with the Governments of Kenya and Uganda, GOT is implementing the Lake Victoria Environmental Management Project (LVEMP) to address the management of the lake ecosystem. With IDA support, GOT is implementing the Lower Kihansi EMP Project to address a significant water use conflict between the needs for power generation and ecosystem maintenance as well as institutional reforms for managing the water-environment. Tanzania is also a member of
the Nile Basin Initiative (NBI) and has been instrumental in developing the Shared Vision strategy for the basin. GOT is currently preparing investment programs for the Mara and Kagera Basins.

Urban WSS. About 26 urban water supply systems are now under the management of UWSAs. Support to UWSAs comes from the German and British governments, the European Community and IDA under the Urban Sector Rehabilitation Project USRP (Cr. 2867-TA). In order to support decentralization of operations and decision making, the following legislation was enacted in February 1997; (a) Water Utilization Act (Control & Regulation); (b) creation of DAWASA; and (c) update of the Water Works Ordinance for merging water supply and sewerage under a single authority. Under the latter ordinance, the private sector can be associated with the provision of WSS service. GOT unwritten policy for urban sanitation of "self provision" is justified by the limited capacity of public infrastructure and responsible agencies. On-site sanitation is still based on self provision with regulation by the health departments of the municipal councils. The most significant policy change has been the transfer of sewerage services from the municipal councils to the UWSAs.

Rural WSS. Since 1991, GOT policy has been to move away from "free water for all" and to promote community management. The rural water component of the National Water Policy drafted finalized in October 2002 calls for the provision of rural WSS services through: (a) community planning and management; (b) private provision of goods, works and services; and (c) public sector regulation, facilitation and environmental management. Demand from community, cost sharing and decentralization of management and implementation at the lowest level possible are the pillars of the new policy. In March 2002, IDA approved a Rural WSS project (Cr. 3623-TA), designed as a first phase of a national RWSS program.

2. Objectives
The development objective of the project is to provide a reliable, affordable and sustainable water supply service and improve the sewerage and sanitation services in area served by the Dar es Salaam Water and Sewerage Authority (DAWASA) that includes Dar es Salaam and part of the Coast region. This will help improve public health and well being in a city prone to cholera outbreaks or other water borne diseases and support productive activities of the country’s main economic centre. This will be achieved by:
Rehabilitating existing DAWASA drinking water production, transmission, storage and distribution facilities and waste water collection and treatment facilities that have lacked maintenance over the years;
Extending piped water supply service to unserved areas through a balanced program of construction of primary and secondary distribution pipes and implementation of a commercial policy that will favor connections of households;
Upgrading DAWASA commercial operations to industry standards, reducing physical and commercial unaccounted for water (UfW) and increasing collection of water and sewerage bills through the sub-contracting of operations to a private "Operator";
Enhancing DAWASA financial situation by raising the Customer Tariff to a level that would initially cover operation and maintenance (O&M) costs, service long term debt and contribute to the capital expenditure program and eventually compare with the Long Run Marginal Cost (LRMC) of the
3. Rationale for Bank’s Involvement
The Bank is probably the only financing agency that has been actively involved in supporting "privatization" of WSS operations in Africa during the last two decades. Throughout preparation, it has provided constant assistance to GOT. The Bank also is the only financing agency that can provide GOT with the assistance needed to implement an institutional arrangement likely to require several fine tunings during the coming years. The Bank has been able to attract significant co-financing to the project, and will continue its coordination role during implementation. Finally the Bank can help prepare a technically complex future WSS project for Dar es Salaam.

4. Description
Component 1: Rehabilitation and Extension of Water Supply Facilities. This component will include: (a) a "Priority Work Program" focusing on the urgent rehabilitation of production units and transmission lines; (b) a "Non-Delegated Work Program" focusing on the full rehabilitation of the three water production units, the two transmission lines, rehabilitation of two main reservoirs and construction of a new 5000 m3 reservoir, and rehabilitation of the main distribution network; (c) a "Delegated Work Program" focusing on the rehabilitation and extension of secondary distribution pipes and connections (including the construction of about 900 km of small diameter pipes, the rehabilitation of about 135,000 connections and the construction of 35,000 new connections); (d) the "Supply of 173,000 Meters"; and (e) construction supervision. DAWASA will be fully responsible for implementing sub-component (b); DAWASA has already awarded the construction and supply contracts for sub-components (a) and (d) to the Operator; the Operator will, under its Lease Contract be responsible for implementing sub-component (c) as project manager on behalf of DAWASA.

Component 2: Rehabilitation and Extension of Wastewater Facilities. This component will include: (a) the rehabilitation of 140 km of existing sewers, 3,100 manholes, 15 waste water pumping stations, nine waste water stabilization ponds and an existing ocean outfall; and (b) the construction of 26 km of new sewers. All construction activities will be supervised by the CSC. This component will be fully implemented by DAWASA as part of the "Non Delegated Work Program".

Component 3: Community Water Supply and Sanitation Program. This component, aiming at providing a minimum service to low income communities that may not immediately benefit from the piped water network, will include the construction of sub-projects, such as schemes based on point sources, community piped water supply systems relying on a bulk supply from the main network or stand alone systems; and on-site sanitation facilities; it will also include community management training and hygiene promotion. This component will be implemented by DAWASA with the assistance of specialized NGOs, who will assist beneficiary Community Based Organizations (CBOs) establish a Water and Sanitation Committee (WSC); formulate a request for a grant; get the sub-project appraised, based on criteria set out in the Project Operational Manual (POM); and if selected, assist the WSC sign a sub-project agreement with DAWASA for the execution of the identifies sub-project, as well as build the capacity of
Component 4: Institutional Strengthening. This component will support all activities associated with the improvement of the operation of the WSS service and includes: (a) financial assistance to the Operator to help finance start-up activities; (b) technical assistance to DAWASA: engineering, financial, legal, assets revaluation, audits, communication, environmental monitoring and activities aimed at prevention of HIV/AIDS; (c) training of DAWASA and MWLD staff; (d) transitional expenses and supply of operational equipment; and (e) technical assistance to the Wami/Ruvu Basin Agency. DAWASA will implement all components. MWLD will have oversight over sub-component (e).

Component 5: Preparation of the Medium Term WSS Development Program. This component, aiming at preparing the medium term water supply and sanitation extension program, will support the preparation of: (a) studies for the selection of the future raw water source for Dar es Salaam, in association with a comprehensive regional environmental assessment; (b) an assessment of the ground water capacity in the Dar es Salaam vicinity; (c) feasibilities studies of the extension of the water production, transmission and distribution systems; and (d) a strategic sanitation plan.

5. Financing

<table>
<thead>
<tr>
<th>Source</th>
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<td>BORROWER</td>
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<tr>
<td>Total Project Cost</td>
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6. Implementation

Implementation responsibility. DAWASA will have the overall responsibility for implementing the project, expected to cover the first five years of the new institutional arrangement; its performance under the IDA financed USRP is satisfactory. DAWASA, as AHC, will be limited to two lean departments: a "Technical Department" responsible for managing construction activities and preparing technical studies and a "Financial Department" responsible managing the finances of the WSS service, monitoring the Lease Contract and dealing with EWURA. The project will include TA to strengthen DAWASA’s capacity (full time Technical Adviser for five years and Financial Advisor for three years) as well as regular technical audits of the performance of the Operator. Under a special arrangement, DAWASA will also be the contracting agent for the Water Resource Management sub-component of the project on behalf of MWLD and of the newly established Ruvu/Wami Basin Water Office.

Procurement. DAWASA will be responsible for the procurement of works for the major CIP; its capacity and procedures have been assessed and found acceptable. Bidding documents have been prepared and will be ready before effectiveness. DAWASA will employ a Construction Supervision Consultant (CSC) to evaluate bids, supervise construction activities related to water production, transmission, main distribution and waste water treatment. The CSC will also supervise implementation of two contracts implemented by
the Operator in addition to the Lease Contract, i.e., the construction for
the Priority Work Program (PWP) and supply of meters. As part of its
Lease Contract, the Operator will implement the Delegated Work Program
(DWP), focusing mostly on the rehabilitation and extension of the
secondary water distribution system. DAWASA procurement rules will apply
to all contracts implemented by the Operator under the DWP. The Operator
will procure contracts for the construction of connections financed under
the Connection Fund. DAWASA will extend the mandate of its financial
auditors to also cover the management of the Connection Fund, the
implementation of the DWP by the Operator and the performance of the
latter under the Lease Contract. DAWASA will implement the Community WSS
component with the assistance of international NGOs already active in the
WSS sector in Dar es Salaam. TOR and budgets for most TA and studies have
been agreed upon and are part of the Project Implementation Plan (PIP).

Financing. The project, whose total cost is estimated at US$ 161.0
million, excluding tax and duties, but including contingencies will be
financed by IDA (US$ 55.0 million), the African Development Bank, AfDB
(US$ 48.0 million), and the European Investment, EIB (US$ 37.0 million).
The remainder will be financed by DAWASA and the Operator. Each agency
will finance well defined construction contracts in parallel; procurement
rules of each of the financiers will apply to the contracts they finance.
IDA will cover the cost associated with the various contracts between
DAWASA and the Operator including a loan by DAWASA to fund the Operator
start up activities, the PWP, the supply of meters and the engineering
fees for the implementation of the DWP. IDA will also contribute to the
financing of the rehabilitation of the secondary distribution network and
the Community WSS component and all the TA, audits and training of DAWASA
and MWLD staff; by effectiveness, DAWASA will have already awarded
contracts with the Operator, the CSC and the auditors valued at about
US$30.0 million;
AfDB will primarily finance the rehabilitation and extension of the
distribution network, and contribute to the financing of the DWP and of
the Community WSS component. AfDB will also finance the rehabilitation of
the sewerage system and TA to MWLD for improving operations of the
Wami/Ruvu River Basin Agency;
EIB will finance works associated with the rehabilitation of the water
treatment plants, transmission lines and reservoirs, waste water
stabilisation ponds, and contribute to the financing of the DWP;
The Operator is committed to contribute US$8.5 million to finance the
working capital of the operation, inventories and operational equipment,
of which US$2.5 million when the Lease Contract becomes effective; and
DAWASA will contribute about US$12.5 million, or about 10% of the cost of
the construction contracts from internal sources.

GOT on-lending to DAWASA. Financing made available to GOT for the project
by IDA, AfDB and EIB will be passed on by the MOF to DAWASA under the
following conditions: (a) grant for all consulting services and grant
contribution for 60% of the construction program; and (b) loan in
Tanzanian Shillings (Tsh) for 40% of the construction program to be repaid
in 15 years, of which five years of grace (including capitalization of
interests during construction) at an interest rate of 11.5%. On-lending
conditions have been set at levels deemed affordable by the Customer
Tariff as specified in the Development Contract. GOT will bear the
foreign exchange risk on the financing made available by IDA, AfDB and
EIB. Up to US$ 5.5 million from the IDA Credit will be on-lent in local currency by MOF to the Operator through DAWASA; the principal of the loan will be reimbursed during the last five years of the Lease Contract; the interest rate will also be 11.5%.

Accounting, financial reporting and auditing. Given the complexity of the Project, part of the Project Preparation Advances (PPA) was used to strengthen DAWASA’s financial management systems, through TA and training to ensure compliance with BP/OP 10.02. The TA will be maintained for three years of project implementation. The project will thus reach Financial Monitoring Reporting (FMR) status for project monitoring purposes by effectiveness. Disbursement will follow the traditional methods for IDA financed projects. DAWASA will manage and report on the Special Account and arrange for its annual external audits. A Financial Management Manual has been prepared as part of the Project Operation Manual (POM); it gives an outline of the financial management procedures, including accounting and audits. All details of financial management and formats for quarterly FMRs for project monitoring purposes will be discussed and agreed on during negotiations.

Monitoring and Evaluation (M/E). A series of reports by DAWASA, the Operator and EWURA will allow M/E of the implementation of the project and achievement of its objectives. All EWURA reports will be disclosed publicly; the Operator and DAWASA reports will be privileged. As per the Lease Contract, the Operator will report to DAWASA on an annual basis on key indicators: (a) water produced at the treatment plants, available at the Dar es Salaam reservoirs, sold, unaccounted for; (b) water pressure and quality; (c) waste water collected and treated; (d) effluent quantity and quality; (e) meters installed, meters read and billing established on actual reading; (f) bills collected; accounts receivable by category of customers; (g) illegal connections regularized; (h) implementation of the DWP; and (i) "social" connections and kiosks built. Simplified interim reports will be available for selected indicators; DAWASA will report on a quarterly basis to its Board and IDA on implementation of the construction programs and the various studies and TA supported by the project, in particular: (a) implementation schedules updated by component and financing agency; (b) commitment and disbursement by component and financing agency; (c) findings, recommendations, agreement reached, main issues and decisions sought; and (d) environmental performance; and EWURA will mostly issue, on an annual basis, an independent review of the implementation of the Development, Lease, Customer Contracts, and proposals for immediate and/or longer term remedies to enforce compliance with contractual terms. EWURA will in addition issue, as needed, reviews of requests by the Operator and/or DAWASA to amend the Operator and/or the Customer Tariffs. Before the end of the first five year period, EWURA will also issue a review of the actual costs of the Operator, and recommendations on the future Customer Tariff level and structure based on detailed willingness to pay surveys and updated estimates of the economic and financial costs of the WSS service.

A mid-term review of the project performance will be carried out together will all financing agencies about three years after effectiveness. An Implementation Completion Report will be prepared within six months of the
project closing. GOT, DAWASA and EWURA will contribute their own evaluation of the project.

7. Sustainability
The key elements that will affect the sustainability of the project benefits are:

The clarity of the contractual arrangement and the predictability of the regulatory framework;
The accountability of the various actors and their incentives to perform;
The capacity of GOT to implement a tariff policy gradually achieving cost recovery, demand management and minimum service to low income communities.
The ability of the GOT in promptly paying for water and sewerage bills incurred by its agencies.

8. Lessons learned from past operations in the country/sector
WSS Projects in Tanzania. Traditionally, urban WSS projects in Tanzania have paid little attention to institutional development and cost recovery issues; but with the creation of UWSAs and the formulation of the National Water policy, GOT has recently demonstrated a willingness to address these issues. The experience with UWSAs has been an important step towards accountability, but it is too early to judge its sustainability, taking into account the difficulty of attracting and retaining competent staff for each UWSA and of reducing operating costs, because of the small size of each operation. Sub-contracting technical and commercial operations of the WSS service to operators with a wider geographical coverage may be an option to consider.

Private Sector Participation in WSS. PSP in WSS is not a new concept in Africa. SODECI of Côte d’Ivoire, the private operator that now serves more than 600,000 customers in more than 600 cities and towns with populations ranging from 2.5 million to a few thousands, was created 40 years ago. Senegal, Niger, Mali, Mozambique and South Africa have implemented reasonably successful PSP schemes in the last decade. Cameroon, Ghana, Nigeria are seeking similar arrangements. A review of the regional experience carried out early during project preparation led to the recommendation of: (a) the Lease Contract option transferring the commercial risk to the Operator; (b) the transformation of DAWASA into an AHC; (c) the need for a Development Contract between the Government and the AHC; and (d) the advantage of transferring some responsibility for implementing construction to the Operator.

Other lessons. Experience worldwide and in particular in Africa has also demonstrated the importance of: (a) proper pricing of WSS Service to manage water demand, in particular in water scarce areas, and of designing a tariff structure to allow access to piped water of lower income groups; (b) stakeholder participation in the design of institutional reform to build a strong consensus on the "privatization" of a key public service; (c) developing, in parallel to the mainstream project, specifically targeted programs to lower income communities that may not immediately benefit from improved WSS service; and (d) designing a simple but well focused project.

9. Environment Aspects (including any public consultation)
   Issues: The project is aimed at upgrading the WSS service
in Dar es Salaam, in particular through rehabilitating existing facilities whose advanced stage of disrepair causes extensive pollution and health hazards. The project overall objective is not only to improve the provision of water, but also to improve the environment and health conditions. The project enjoys a strong public support; the best environmental action that can be taken for the city is to implement it rapidly. An environmental assessment (EA) completed in 1995, covers the rehabilitation of water supply facilities and contains an Environment Management Plan (EMP). An update of the EA with respect to the waste water collection and disposal component is being prepared.

Bulk Water Supply. Regulation of the Ruvu river, Dar es Salaam main source of water, is being considered to support low flows during the dry season. The project will not include any regulation works, but rather support an environmental assessment of their potential impact, as part of a regional EA of the Ruvu river watershed and of the Dar es Salaam water distribution area and coastal offshore area. Three main alternatives are currently being considered: bunded reservoirs located next to the treatment plants, the Kidunda dam and the Ngerengere and Mgeta dams; another alternative considers a transfer from the Rufiji basin.

Constructions. Water Supply: the project will include works to safely dispose sludge of the Ruvu water treatment plants in an environmentally safe way and to secure proper drainage at all public water distribution outlets. Waste Water: the project will rehabilitate and upgrade sewers and waste water stabilization ponds as well as the ocean outfall, adding 100 meter to its present length. The project will also include works for safe disposal of sludge from the waste water stabilization ponds. The project will finally monitor the rehabilitated waste water systems to avoid renewed deterioration. The project will not cover rehabilitation of the existing landfill site, estimated at US$2.0 million, for which bilateral financing is currently being sought. During construction, safety equipment will be provided, and people safeguarded near work sites to avoid accidents and temporary pollution damages.

Monitoring. DAWASA will employ a full time environmental supervisor to supervise the PO performance with implementing and monitoring the rehabilitated systems, and for establishing and maintaining a reporting program and a data base. The project will provide support of an independently contracted Environmental Advisor, such as the "Institute for Resource Assessment" at the University of Dar es Salaam during the first two years of its implementation, and the necessary equipment for pollution monitoring and analysis.

10. Contact Point:

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11. For information on other project related documents contact:
    The InfoShop
Note: This is information on an evolving project. Certain components may not be necessarily included in the final project.