

Private sector participation in Dar es Salaam, Tanzania

Introduction

For over the past 10 years, Dar es Salaam's water supply and sanitation services have been in a perennial state of crisis. As a result, passions run high in this city of about 3 million (daytime population: 5 million) whenever the topic is discussed. In the second half of 2001, WaterAid conducted a research on how residents of low-income neighbourhoods felt about the problems and the impending changes being proposed to resolve these problems. Reactions were varied, but were marked with some extreme replies. Asked what she thought about the Dar es Salaam Water and Sewer Authority (DAWASA), one housewife retorted, "They should all be fired!" Another squinted her eyes, gave a muffled curse, and then said "I hate them." These are extreme reactions, and whether fair or not, are nevertheless reflective of sections of public sentiment over the city's failure to decisively deal with the problems.

Dar es Salaam is a typical city in a poor developing country that is grappling with huge infrastructure and efficiency problems. The Tanzanian government has been trying to solve the crisis in its capital city by trying on different reforms, but the problems proved too stubborn to be solved. Now, private sector participation is being considered, but the process remains hanging, bogged down by the complexity of the problems and the difficulties of sorting out complex relationships between the different stakeholders.

The provision of water and sanitation services was organised under the years of Tanzanian socialism. The services were originally provided for free, minimally charging only the high-income neighbourhoods for operation and maintenance. It was one of the mechanisms for the fair redistribution of wealth, a central platform of the government. But over the years, it became evident that free water not only crippled the water system, it also pushed the country deeper into debt. Tanzania today is a Highly Indebted Poor Country (HIPC), one of the poorest countries in the world. At least 120,000 households in Temeke, Dar es Salaam's sprawling unplanned and unserved settlement, remain *completely* unconnected to the failing water system. Unmanaged pit latrines are the main form of sanitation.

Tanzania abandoned socialism in 1986 with the signing of a structural adjustment programme with the International Monetary Fund. In 1991, the government took a radical step in water provision. It abandoned the idea of free water and adopted a new National Water Policy. It removed central government subsidies for its water utilities and prescribed that they should be self-sustaining. It moved a step further six years later by creating Urban Water and Sewer Authorities (UWSAs), autonomous public bodies responsible to its own Board and not to a city or national government body. UWSA's were independent of government, are self-financing and would control whatever revenue they collected. In Dar es Salaam, DAWASA was created.

But there was something else. Through these 'reform' years, another option was considered -- private sector participation (PSP). The cash-strapped, severely-indebted government realised that its biggest need was investments. They looked to PSP as a way of attracting foreign companies to invest in and rehabilitate the utilities, particularly DAWASA. But PSP is not a simple arrangement. It takes long-winded negotiations, complex relationship building, and a minimum of guarantees before risk-averse investors will even start to consider coming in. When word got around that "privatisation" was being considered, not a few eyebrows were raised. If this were to happen, Tanzania

would have gone from one extreme (free water) to another (privatisation). But there were also those who have given up that DAWASA can accomplish anything and asked, "Why not, maybe a private operator can do the job?"

As if to make the problems even worse, a prolonged drought in 1997 exacerbated the crisis right after DAWASA was created. Emergency measures were implemented. To keep public trust that something was being done, the government fast-tracked the privatisation process. But snags hit the process. Initially, it was the disagreement over what form of PSP ought to be taken. But later, a more serious problem emerged: there were too few bidders. Five companies pre-qualified, four went forward to the re-bid process in late 1998, and only two opted to put forward technical and financial bids. There can be a number of reasons why interest from private companies to run DAWASA is low, and one of these could be that the utility had such complex and difficult problems that it posed a headache beyond relief, not a business opportunity to avail of. Until today, the PSP process hangs, and DAWASA's beatings in the public opinion grow by the day.

This case study is an attempt to look closely at the changes being considered to resolve Dar es Salaam's water and sanitation problems. The approach adopted is something ambitious – it investigates these issues from the poor's perspective. Among others, the study explored how poor communities – unconnected for so long – are coping with the crisis. It wanted to know what are the mechanisms they used in place of the city's failed public services. It examined whether these mechanisms, which evolved slowly through the years, are being given due consideration in the policy changes, particularly in the implementation of PSP. It wanted to look at how involved they were, and whether these poor communities stand a chance of gaining access to the services should a private operator take over. It evaluates whether PSP is the policy tool that can finally unlock the solutions and improve Dar es Salaam's water and sanitation services.

But this case study is more than just a research using participatory techniques. From the beginning, it was clear that the poor, unconnected slums of Dar es Salaam were marginal to whatever process was being considered and implemented. The participatory research activities conducted were designed to get their views as much as to make them aware of what is going on. Twenty community mapping exercises were undertaken. The exercises involved drawing community maps, identifying the resources and problems within the communities, and cross-checking information gathered from other activities. 'Enumerations' were undertaken, involving community leaders who were active in water user committees or in community organisations. They went house-to-house asking neighbours from a prepared questionnaire about general household information as well as their particular water and sanitation problems. They were also asked whether they have heard of the proposed 'private operation' of DAWASA being considered, and if so, what they know and felt about it. Over 200 community leaders were mobilised and trained for the enumeration exercise. At least 4000 households were reached. Finally, focus group discussions were held with groups of women, water vendors, water committees, and local leaders.

The study started with the argument that getting a connection -- not who will run the utility and not even prices -- is the chief and most immediate concern of the poor in Dar es Salaam. Therefore, so this argument goes, private or public operation of DAWASA will be relevant to poor communities only if it will bring them easier access to taps and will clean their communities. Putting it another way, it appeared to the researchers that

the 'privatisation' of DAWASA is primarily an issue only to those who *had* connections. For the unconnected urban poor, what happens in the debates (on who gets to own the system, makes decisions, regulates prices, and so on) is less of a concern. "Get us connections now!" they seem to be saying, "then we can talk about all the other issues that follow" – ownership, connection costs, prices, regulation, billing, technology choices, etc.

Thus, the primary focus of this study is to listen to the voices from Temeke. These voices are by no means unanimous, nor simplistic in their interpretation of the problems as well as the proposed solutions. But there was also one hurdle that needed to be done first before the community research activities could be undertaken. There was inadequate information what was going on in DAWASA's privatisation process. Access to those involved in the negotiations proved difficult. Media coverage was scattered, and many questions were left unanswered. Unless the confusion was first sorted out, discussions with the communities may also be confused. As such, an investigation was first conducted into what was going on. As it turns out, understanding the privatisation process was crucial in determining where the interests of the poor laid in the scheme of things. Understanding the different contexts and sorting out the confusion on what was going on was crucial in order that the messages from Temeke may be properly assessed.

This study thus lays down the context first before going into a presentation of the voices from Temeke. The first part presents a general overview and background of Tanzania, looking at its post-independence history and stages of development, as well as the reform debates and poverty reduction schemes that have been experimented on. The study then proceeds to a discussion of the water and sanitation situation in Dar es Salaam, and the privatisation process that is being considered. As it turns out, there are a number of fundamental points in the process that has never been given adequate attention before – a matter that has caused considerable muddling of the debates. Finally, the main part is presented, a summary of the issues of the poor from Temeke, where they are situated in terms of the PSP discussion, and the household context in Dar es Salaam's urban slums. The conclusion demonstrates how the research has validated but also refined the argument. Even if they are marginal to the PSP process, the poor could not afford to remain marginal. The need to intervene on two 'fronts' – at that level where conditions for the Lease Contract are being negotiated, and more importantly, at that level were decisions on funding for the Development Contracts. A list of issues is then presented, along with further work that needs to be done in order to address the main concern: getting Dar es Salaam's slum neighbourhoods connected to a safe water system and providing adequate sanitation services.

Section 1: An Overview of Tanzania

The United Republic of Tanzania is the largest country in East Africa in terms of land area, which covers 940,000 square kilometres, 60,000 of which are inland water. Lake Taganyika runs along the western border and is Africa's deepest and longest lake and the world's second deepest lake. In the north west lies Lake Victoria, shared with Uganda and Kenya. The Rufiji River is Tanzania's largest river, which drains into the Indian Ocean south of Dar es Salaam. Except for a narrow belt of 900 square kilometres along the coast, most of Tanzania lies 200 metres or more above sea level. Much of the country lies higher than 1,000 metres. In the north, Mount Kilimanjaro rises to 5,895 metres, the highest point in Africa. ([National Bureau of Statistics, 2002](#))

Mainland Tanzania, known previously as Taganyika, gained its independence from the United Kingdom in 1961. In 1964, a bloody revolution followed in neighbouring Zanzibar Island. Taganyika united with Zanzibar in April 1964 to form the United Republic of Tanzania. Mainland Tanzania is divided into 20 regions; Zanzibar into five regions. Each region, in turn, is subdivided into districts.

In 1996, the country had an estimated population of 30 million, of which 26% lived in the urban areas. The urban poor is estimated as constituting 80% of the urban population. They are characterised by low-income levels of less than US\$1 a day, high rates of water-borne diseases. ([WUP No. 2, 2000](#)).

The three phases of development

Tanzania's post-independence economic history is typically divided into three distinct phases. The first phase (1961 to 1986) is characterised by state socialism, the second phase (1986 to 1995) by structural adjustments, and the third phase (1995 to the present) by renewed macroeconomic reforms. ([ESRF, April 2000: 4-10](#))

Post-independence Tanzania adopted a form of state socialism known as *Ujamaa*. It was formally launched in 1967 with the *Arusha Declaration*,¹ which declared that all the major means of production and exchange were to be owned by the peasants and workers through their government. Effectively nationalised were land, forests, minerals, banks, import and export trade, wholesale trade, cement, fertiliser, textile industries, insurance, news media, electricity and the iron and steel industries. During this period, the country operated a centrally planned command economy in which the ruling party, the state and government institutions operated as a single intertwined vertical entity. The ruling party and state with its administrative machinery, mass organisations, state-owned enterprises, state-directed co-operatives, government owned banks and a web of public holdings ran the economy and controlled both prices and the distribution of all-essential goods and services. ([ibid.](#))

Tanzania's adoption of *ujamaa* was in many ways a response to the economic and market imbalances created during the colonial era in East Africa where Kenya was favoured as the location for industrial and business enterprises. The government took over the small and relatively fragile private sector, which had flourished during the

¹ Arusha is a city in central Tanzania which is the country's second most important urban centre.

colonial period. Many basic services such as health, education, agricultural extension and water were delivered free of charge or at subsidised prices. However, during this period, the economy suffered from external shocks such as accelerating oil prices, the collapse of commodity prices, droughts, the break-up of the East African Community and the Uganda war. Along with poor macroeconomic policies, weak economic management and a mounting foreign debt, a severe economic crisis culminated in the early 1980s. Weakened tremendously by the crisis, *ujamaa* was ended in 1986 with the signing of an IMF/World Bank Structural Adjustment Programme. (ibid.)

The second phase of development was marked by an economy externally supervised by the IMF, World Bank and other donors. Economic and public sector reforms were implemented to dismantle the state-controlled economy with a market economy. Trade, price control, exchange rates and interest rates were all liberalised. Agriculture was also liberalised and subsidies on fertiliser and other inputs were removed. Around 200 of 420 state-owned enterprises were sold to the private sector or shut down. The public sector workforce was cut from 355,000 employees in 1992 to 270,000 in 1997.

It was during this phase when user fees, cost sharing and co-financing on health, education and water was introduced. But rather than improvement, these changes brought profound deterioration in health and education services delivery. New policies were developed for mixed service delivery systems in which the private, non-government and community sectors were given greater freedom to undertake and deliver services. Spending by the Tanzanian government on social services was dramatically cut. Basic needs poverty levels in mainland Tanzania rose significantly to just under 53 percent of the population.

Serious policy differences between donors and the Tanzanian government emerged. This, along with unresolved problems in management, poor tax collection and resistance to some changes being proposed, led to an impasse in 1993-1995. In 1995, the IMF and World Bank decided to withdraw support to the country.

The break with donors was however immediately resolved when a new 'third phase' government came into office. Massive public expenditure cuts were implemented along with the withdrawal of overdraft facilities of three public sector banks². Macroeconomic stability set in, with inflation dropping from 30% in 1995 to 6.6% in early 2000. To further improve fiscal stability, the Government moved to a cash budgeting system. This brought public sector finances under the strict control of the Treasury and Bank of Tanzania. The stringent fiscal regime however left public services with virtually no funds for development while access to loan capital for major infrastructure investment is tightly regulated and rationed.

New commercial legislation favouring foreign investment coupled with tax exemptions – primarily in the mining and tourism sectors - were implemented. Parastatal divestiture shifted from the marketing boards and state-manufacturing enterprises to the public utilities and transportation sector. In addition, Public and Local Government Reform was implemented, which meant rationalisation, streamlining and decentralisation of functions, structures and staff. New budgeting and financial management systems were introduced to both central and local government to enable better tracking of public expenditure.

² All 3 banks have subsequently gone insolvent due to parastatal and co-operative enterprises defaulting on their loans.

The third phase continues until today but the results generally appear to be mixed. This is most clearly seen in the case of water and sanitation, where problems remain too stubborn to be resolved.

The 'bitter pill' and results of reforms

Tanzania's reform processes were bitter pills, which while effective in achieving a certain level of macroeconomic stability, caused some social discord. Health, education and water services, previously delivered for free, now charged user fees. The imposition of school fees was eventually eliminated, but other costs (uniforms, books, etc) remained high and unaffordable by the poor. Exemptions for the poorest exist in theory, but not in practice. For water and sanitation, new 'demand-driven' policies were developed – services were to be delivered based on demand, which often meant that the poorest who are often unable to articulate demand do not get the service.

One of the key reform measures taken was the parastatal reform programme. The Government from the mid-1960s to the late 1970s established over 420 state-owned enterprises. These ranged from crop marketing boards; food processing enterprises; manufacturing businesses; water, power, and telecommunication utilities; harbour and railway authorities to petroleum refineries. Government invested huge amounts of capital in the parastatal sector. However, returns on investment were very poor and by the early 1980s these state-owned enterprises accounted for fiscal losses in excess of 7 percent of GDP. This led to a situation in the early 1990s where 6 out of every 10 parastatals were so heavily indebted that they could not repay their loans and were thus not credit worthy. The insolvent parastatals were key reasons for Tanzania's debt crisis. ([Katunzi 1998 and World Bank 2000](#))

One of the first moves made after the 1986 signing of structural adjustment programmes was the establishment of the Parastatal Reform Programme. It aimed at reducing parastatal dominance in the economy, at promoting private sector activity, and in mobilising local investments. A special body called the Presidential Parastatal Sector Reform (PPSR) Commission was created to handle the divestiture process to oversee a massive programme to privatise, lease or wind up the state-owned enterprises. To-date, well over 50 percent of these parastatals have been divested from Government control.

In the mid-1990s the PPSR Commission began a new phase of private sector participation work focused on the country's public utilities, railways and ports. The public utilities that are currently undergoing preparatory work for private sector involvement are: electricity, telecommunications and the Dar es Salaam Water and Sewerage Authority (DAWASA). To assist the government to undertake this work the World Bank is funding the process through the Programmatic Structural Adjustment Credit (PSAC) Programme (2000-4). The purpose of this programme is *"to assist in the completion of the privatisation of the main strategic public enterprises, particularly in infrastructure services, which have significant bearing on the cost of doing business."* ([World Bank, 2000](#))

Among the institutional changes implemented in line with the new thrust of the PPSRC was the creation of autonomous public bodies called Urban Water Supply Authorities (UWSAs). UWSAs ran on a self-financing basis and were set up in each of Tanzania's 18 urban centres (DAWASA for Dar es Salaam). The transformation of water utilities into authorities was meant to strengthen financial management, billing and collection

capacities. All the UWSAs at the end of 1997 recorded substantial losses and were unable to meet their recurrent expenditure costs. By 2000, significant improvements particularly in revenue collection were recorded. An overall improvement of 74% across all UWSAs was seen. In 1997 a World Bank funded government executed Urban Sector Rehabilitation Programme started capacity building in nine of the UWSAs – Arusha, Moshi, Mwanza, Tanga, Shinyanga Dodoma, Mbeya, Iringa and Morogoro. Four UWSA's are now able to meet all their O&M and staffing costs – Arusha, Moshi, Tanga and Mwanza. ([MoF PER Water Sector Review 2001](#))

However, these positive changes were still unable to deal with the major problem -- to expand water and sewerage networks to the unconnected poor communities, and to sustain this expansion to at least match population growth. The growth rate of the urban centres is around 5.5 percent per annum, mainly due to migration. Already, the 2000 Household Budget survey reveals that poverty has grown in the urban areas outside Dar es Salaam from 23 percent in 1991-2 to 34 percent in 2000. Massive investments to expand water and sanitation services to the poor are thus urgently needed. Furthermore, investments are also needed for the rehabilitation of the existing, old and dilapidated water systems that are sustaining very high water losses through leakage, unauthorised use and illegal connections. But the problem is the current fiscal regime, where investments are rationed by government. It has been difficult to address the rehabilitation and expansion of water systems because of the lack of investments.

Poverty Reduction Strategy

In December 2000 the Boards of the IMF and World Bank jointly approved the Government-led and prepared Poverty Reduction Strategy Paper. The creation of this new strategy marks a new approach for dealing with the stubborn problems of underdevelopment. The idea is that new funds can be mobilised if more focused and well-planned poverty reduction projects can be developed. But the PRSPs also showed WB-IMF confidence in the various structural reforms that Tanzania has implemented. They were convinced that by and large Tanzania has taken the bitter pill. What is needed henceforth are projects for more strategic poverty reduction. ([IMF/IDA, 2000](#))

Tanzania now has a focused and budgeted 3-year medium term poverty reduction and growth strategy linked to the International Development Targets (IDTs) which runs to June 2003. The strategy's priority sectors and activities are:

- primary education;
- basic health;
- rural roads;
- water;
- agriculture;
- HIV/AIDS;
- access to credit and self-employment;
- an enhanced business environment for private enterprise; and
- improved governance.

However, national consultation and participation efforts to engage a broad range of stakeholders in the PRS process have to date been limited in scope, content and coverage. This is due to a combination of factors: overly tight deadlines for preparing the PRS paper, communicating in a country the size of Tanzania, weak Government–civil society communication channels, and the underdevelopment nature of many civil society organisations networking and policy engagement capacities.

Section 2: The water and sanitation situation in Dar es Salaam

Dar es Salaam covers an area of around 1,350-km² and has a population estimated at between 2.5 to 3 million (SUDP Report 1999). However some estimates place it as high as 3.5 million with a daytime population of around 5 million. Poor and out-of-date census and administrative data make it difficult to check the accuracy of these figures. A new National Census is planned in late 2003. The City's average annual growth rate over a 40-year period (1948 to 1988) was 7.7 percent while during the last decade it is estimated to be around 9 to 10 percent per annum (ibid.). Dar es Salaam currently accounts for around 25 percent of the country's urban population.

Table 1: Population Forecasts

Year	Growth Rate	Estimated Population	Sources^{II}
2000	9-10%	2.5 to 3million	SUDP Report 1999
2010	9-10%	10 million	SUDP Report 1999
2010	7.1%	6.2 million	IRA/MoW 1995
2015	3.75%	3.8 million	Howard Humphreys Report 1995

During the last 40-years the city's growth has been primarily concentrated along the coastline and 4 arterial roads – Bagamoyo, Morogoro, Nyerere (Pugu) and Kilwa. This has led to a radial land development pattern in which prime areas for development are those with relatively good infrastructure networks and services – Central Business District, Kariakoo, Upanga, Oysterbay, Masaki and Magomeni. Between the arterial roads, there are large areas that are not serviced and these have developed into unplanned settlements. Many of these areas are located in hazardous lands such as river valleys, flood-prone areas and hill slopes. This has led to problems in managing hazardous lands characterised by soil and gully erosion, deforestation, excessive storm water run-off and landslides, sand-mining, and solid waste and environmental pollution. In addition servicing these areas is difficult due to the nature of the terrain and the density and layout of the settlements.

Unplanned and unserviced areas accommodate about 80 percent of the population of the city. The growth of informal settlements in the city has risen from 16 in the 1970s to 43 in the 1980s to 55 by the late 1990s. One result of the rapid growth along the main road systems has been the intermixing of high, medium and low-density developments both planned and unplanned. These developments have a symbiotic relationship with each other and this has led to low density housing (2 to 2-hectare plots) mixed with high

^{II} SUDP – Strategic Urban Development-Planning Framework Report, 1999
IRA/MoW – Institute of Resource Assessment for Ministry of Water, 1995
Howard Humphreys – Feasibility Report on the Rehabilitation of the Dar es Salaam Water Supply System. 1995

density housing with 30 to 40 houses per hectare and populations of 250 to 350 residents. This mixture of high and low-density developments has resulted in a series of informal micro trade-centres and planned service centres abutting each other – university, airport, beach hotel strip, national housing complex, etc.

Infrastructure provision is inadequate, poorly co-ordinated and lags behind the pace of development activities. This has resulted in reduced city productivity, weakened competitive advantage in attracting investment and created a range of environmental hazards. Lack of financial resources and public sector investment over the last 20 years has greatly reduced the capacity of city institutions and utility providers to cope with service demand. Water and sanitation services have been particularly constrained with no new investments in mains sewerage and its treatment for 30 years and limited investment in the water system. As a result, individual land developers, private sector businesses and communities have based their initiatives on ad hoc decisions to service their plots and neighbourhoods, often at high costs.

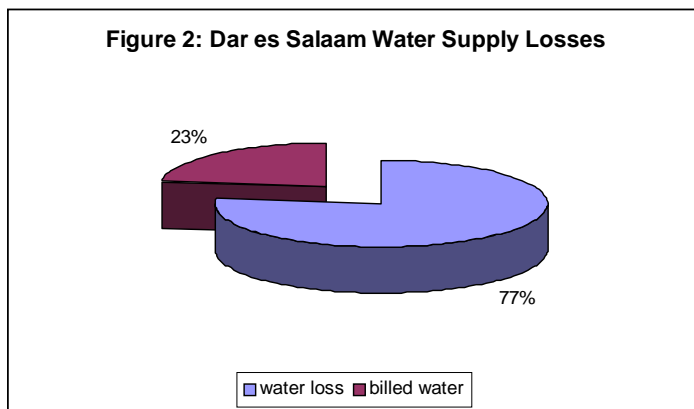
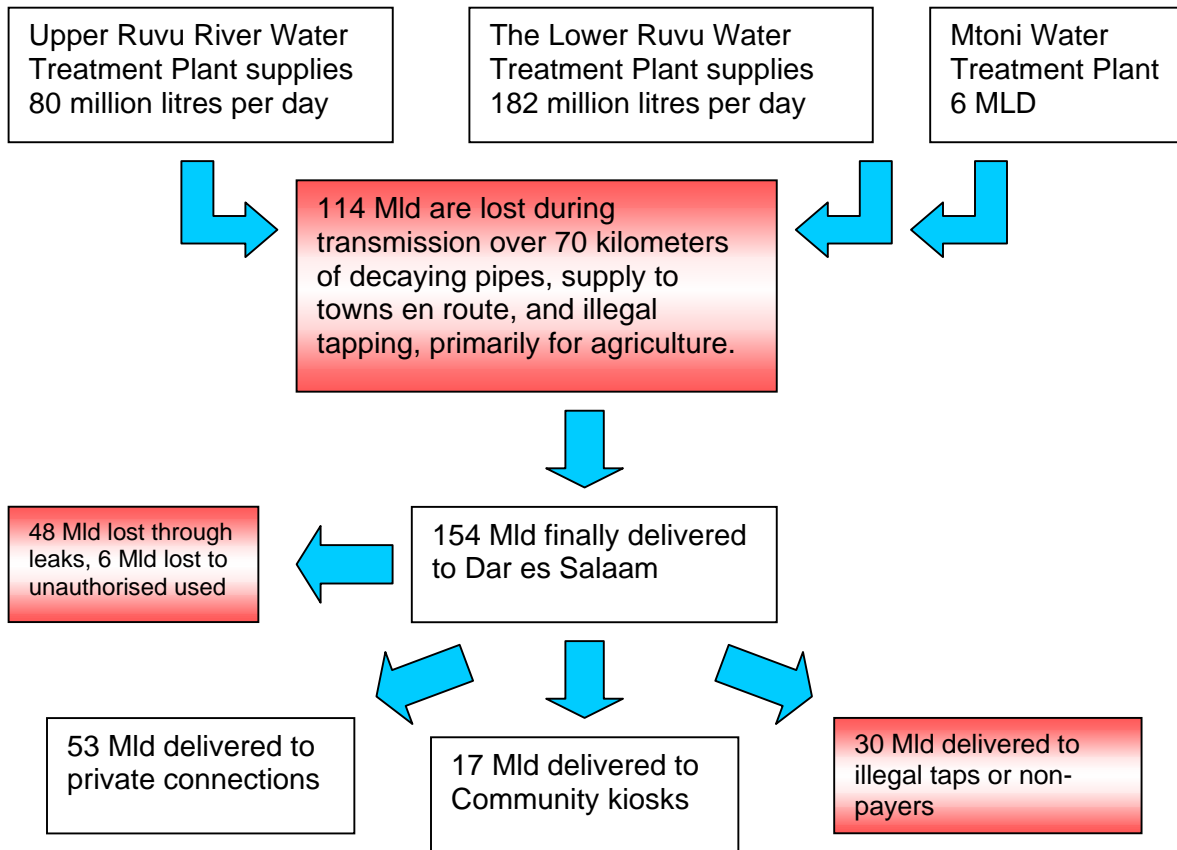
Water and Sanitation Facts and Figures in Dar es Salaam

The agency responsible for water and sanitation services provision in Tanzania's capital city is the Dar es Salaam Water and Sewerage Authority (DAWASA). It is a government utility created from the merger of the parastatal National Urban Water Authority (NUWA) and the former Dar es Salaam Sewerage and Sanitation Division (DSSD). ([WUP Project 5, April 2000](#)). NUWA was created in 1981, during the days of the socialist government of Tanzania when most public services (health, education) were provided for free⁴. Its role was to develop and operate water supply systems in the country's 19 main urban centres. The national government provided the subsidies that paid for construction costs and most of the operation and maintenance costs. NUWA, which continually operated at a loss and became a drain on government resources, failed clearly in meeting its objectives. Water and sanitation soon became one of Tanzania's major problems.

The city's main water source is the Ruvu River from where some 262 million litres are extracted each day. A supplementary 6 million litres are extracted each day from the Kizinga River. The water is then treated – at the Upper and Lower Ruvu Water Treatment Plants, and the Mtoni Water Treatment Plant just south of the city. Water from the Ruvu is pumped through two main transmission lines that extend some 70 kms to the city's holding reservoirs. Transmission losses en route are high and are estimated to be 114 million litres per day (Mld), of which 61Mld are losses incurred due to infrastructure decay. The Upper Ruvu transmission line has a capacity of 80Mld. However, the steel pipes are badly corroded where they have been laid across swampy areas. In addition, the line is heavily tapped to supply villages and settlements en route. The Lower Ruvu transmission line has a design capacity of 182Mld and is made from pre-stressed concrete pipes. In recent years the line has suffered two major bursts at river crossings. Flooding due to the 1998 El Nino rains caused these. This line is heavily tapped to supply the town of Bagamoyo, other villages and irrigation agriculture. It is estimated that 35Mld of water are lost along the transmission lines due to unauthorised use - primarily irrigation agriculture. A further 18 Mld is drawn off to supply an estimated 150,000 people who reside in villages and settlements along the transmission lines.

⁴ Water was provided free in the villages, and in most urban areas it was also provided for free -- where charges are levied, these are very minimal and were used only for operation and maintenance.

Figure 1: The Water Loss Chain of Dar es Salaam



Note: Of the 23% billed, only 16% (of total) are said to actually pay. World Bank advisers present an ever gloomier picture, and estimate that only 8% of total water production is actually billed.

It is estimated that around 154MLd is delivered to Dar es Salaam of which 48MLd is lost in distribution within the city due to the poor state of the infrastructure and wastage. A further 6MLd is lost due to unauthorised use. The actual amount available for DAWASA consumers is estimated to be 100MLd of which 53MLd is supplied through private connections, 17MLd is supplied to kiosks and 30MLd is illegally consumed. Studies reveal that only 23 percent of DAWASA's water production is billed and that only 16 percent is

paid for. However World Bank advisers suggest that only around 8 percent of all water produced is being billed. The key problem therefore is not about the lack of supply, but rather, the very high percent of water lost through the bad state of infrastructure and illegal use along the transmission line. The state of decay, which allows for easier access to the transmission line, and unchecked illegal use has created a system whereby farms and shambas, many owned by influential Tanzanians, profit immensely from 'free' water. DAWASA and the authorities appear unable or reluctant to take action against those involved.

The city's demand for water is between 350 to 400 Mld, % of which 60% is domestic demand, 10% is commercial, 10% is and 20% is institutional demand. DAWASA estimates that around 50 percent of the population of the city is supplied through its piped water system. The cost of producing a 1,000 litres of water is estimated at 400 Tanzanian shillings (or Tsh 0.4 per litre). A 20-litre jerry currently costs Tsh 20 or Tsh 1 per litre.

In addition to the large gap between demand and supply, the Dar es Salaam water system also suffers from: inadequate dry season flows in the Ruvu river in some years; vulnerability to supply interruptions caused by breakages and breakdowns; inadequate filtration and treatment; and low water pressures. Since 1997 the supply of water in the city has been supplemented by around 10Mld from groundwater sources. This is abstracted through 193 borewells drilled during the 1996-97 drought and mainly serving the city's peri-urban and unplanned settlements.

Over 90 percent of city households rely on pit latrines and septic tanks. The state of these sanitation facilities varies enormously both between residential areas and between dwellings. A wide range of materials is used in their construction while the licensing, regulation and supervision of sanitation in the city is performed by a variety of differing authorities. In addition a range of private businesses and local authority departments provide sanitation services. In 1998 nineteen different organisations had tankers discharging waste collected from pit latrines and septic tanks into some of DAWASA's waste stabilisation ponds. In particular the emptying services are unreliable, inadequate and ill equipped, leading to overflows and risks of disease-outbreaks. This is compounded by the relatively high water table in many parts of the city, which particularly affects low-income neighbourhoods where groundwater pollution is an increasing problem. Low-income and unserved areas regularly have outbreaks of cholera and other waterborne diseases.

The sewer system serves less than 8 percent of the city population. There are 10-sewerage systems with about 170 kms of sewer lines, 15 pumping stations and 9 waste stabilisation ponds. The system is really a collection of independent micro-systems rather than one fully integrated network. The oldest network is that covering the city centre, which was developed in the 1950s. Other sewerage areas of the city are mostly centred on institutional areas such as Kariakoo, Ubungu and Vingunguti industrial areas and parts of the outlying residential areas of Mikocheni, Kijitonyama, Mlalakua, University of DSM, Lugalo, Ukonga, Kurasini and Buguruni. Nine systems discharge into waste stabilisation ponds while the system servicing the central area of the city discharges directly into the Indian Ocean via a 1km out-fall. The infrastructure in most of the older systems is in poor condition and needs replacement. All the systems are not well maintained and suffer from lack of spare parts, poor management and recurring blockages. In the industrial areas some of the industries connected to the sewerage

system discharge raw sewage composed of toxic chemicals into the system. This reduces the ability of the system to decompose the waste and results in partial treatment of the effluent.

The city also has 1,100kms of open lined ditches and 600kms of piped storm water drainage. Lack of regular maintenance and the dumping of refuse into the drains causes damage leading to seasonal flooding in parts of the city. In addition many industries that are not connected to the sewerage system or do not have waste treatment plants indiscriminately discharge the waste into storm drains and watercourses in areas adjoining their factories. These areas are often close to or within low-income settlements.

In 1991, Tanzania decided to implement sweeping reforms in order to deal with its huge inefficiency problems. A new National Water Policy was adopted, which radically changed the institutional framework by dropping the idea of 'free' water and declaring that water supply services henceforth must be self-sustaining. Within six years, it became clear that this was not enough. In 1997, new legislation was passed creating separate Urban Water Supply Authorities (UWSAs) in each of the 18 smaller urban centres and DAWASA in Dar es Salaam. As 'Authorities', these utilities were institutionally autonomous -- it operated independently of government on a self-financing basis. This meant that, among others, water revenues collected from the public were retained by the Authority. In the previous set up, water revenues typically went to the city's coffers, which meant that all expenditures on the water system is dependent on city budgeting processes. Legislators, rather than professionals who can focus full time on the problems, determined expenditures. Furthermore, DAWASA and the other UWSAs became responsible to a Board, and not to the city or national government, although it was these government bodies that appointed members to this Board. The Board is the main policy-making body, and had responsibility for setting prices. DAWASA levied flat-rate post-consumption water charges through bills issued to customers. Pit-emptying services and solid waste collection are generally pre-paid. (PPSRC,1999)

There are different types of settlements in Dar es Salaam, ranging from the planned and serviced settlements (like the Central Business Area) to the unplanned, illegal settlements (like the spontaneous settlements near the river and around industrial areas). Generally, about 75% of the population of Dar es Salaam live in unplanned settlements (WUP No. 5, April 2000). Medium income people also reside in these unplanned settlements -- often they are the ones who can afford to pay for a water connection, and in turn, become sources who retail out water to neighbours or water vendors. Some of these unplanned settlements have become legal, i.e. they are officially recognised, the houses are numbered, and the house owners pay a property tax to the municipal council concerned. No data is available on the actual percentage of legal or illegal unplanned settlements (ibid.)

It has been difficult to establish to what extent DAWASA is able to provide water and sanitation services to these different types of settlements and to the city at large. For example, even in high-income areas where expatriates reside, it is not uncommon to find unconnected households getting their water from a neighbour with an illegal connection. Attempts to get coverage and service delivery information from DAWASA itself have so far failed. As such, only estimates can be relied on. Water demand in the whole city is estimated by the Presidential Parastatal Reform Commission (PPSRC) as between 350 to 400 million litres per day, of which domestic and commercial demand is about 60% to

10% respectively. DAWASA is said to meet 50% of this demand. (PPSRC, 1997). One rough way of estimating DAWASA's capacity is to compute delivery based on the number of water customers it has. Tender documents revealed DAWASA has 98,000 water customers and 20,000 sewerage customers. (PPSRC, 1997) If it is assumed that DAWASA has 100,000 customers consuming an average of 1000 litres a day, then delivery is only 100 million litres per day, or less than a third of estimated demand.⁵ In the interviews and enumerations conducted in this research, nearly 9 out of every 10 respondents indicated that they buy water for drinking from vendors or neighbours who have connections, and then use a variety of other sources for washing and other water needs.

Water and sewerage services in Dar es Salaam have thus always been in a state of crisis. Blame is usually placed on huge financial losses resulting from illegal connections, unauthorised used, and leakage. Other factors contributing to the crisis are weak billing and revenue collection, an outdated tariff structure, inadequate maintenance, and chronic under-investment for the past 20 years. Furthermore, peri-urban informal settlements that are far from DAWASA's distribution lines receive no supplies at all, making them reliant on boreholes, traditional water sources and the water vendors. The sewerage system is largely undeveloped. Sewer pipes are estimated to reach only 10% of the population, and the rest use pit latrines (for the low income households) and septic tanks (for the medium to the upper income households). (PPSRC, 1997).

As if to make the problems even more acute, as soon as DAWASA was created in 1997, the biggest water crisis to date hit Dar es Salaam. A drought from January to March 1997 caused taps to run dry for weeks. The crisis was felt more pronouncedly in the low-income communities that do not have access to deeper boreholes. Emergency measures were considered, and the government decided to fast-track the process of handing over the DAWASA to private operators who can bring in the much needed investments. A key factor in this desire to move more quickly on the PSP processes was the need to demonstrate to the public that measures were being taken to tackle the city's water supply problems, even prior to the drought problems. And indeed, the foundations for forms of privatisation of DAWASA have already been laid. For instance, financing for the PSP process has already been secured from the World Bank Public-Private Infrastructure Advisory Facility. (Davies, 1997)

The PSP Process

Donors and consultants have since the early 1990s suggested private sector participation (PSP) as a policy reform solution to Dar es Salaam's water and sanitation problems. Between 1991 and 1995, five major technical feasibility studies were undertaken with donor support that, in many ways, paved the way for PSP to be considered for the city. The most comprehensive study was made in 1995 by Howard Humphreys, a subsidiary of the international engineering company Brown and Root. This study concluded that if current and future demands were to be met, five major tasks need to be implemented, namely:

⁵ Revenues can also be roughly estimated, since charges are based on a flat rate. Assuming that all customers pay the minimum Tshs 10,000 a month charged on low-income customers and that billing and collection is efficient, DAWASA is bound to have monthly revenues of Tsh 1 billion.

- refurbishment of the existing infrastructure;
- extension and upgrading of the network;
- better management;
- rehabilitation and augmentation of the extraction, treatment and transmission facilities from the Ruvu River; and
- improvement of other raw water sources.

For the refurbishment and extension of the infrastructure alone, DAWASA estimates the cost to run over US\$620 million. (Davies, 1997)

In August 1997, international water and sewage operators were invited for a prequalification to tender for a PSP arrangement in DAWASA. Five companies made it to the short list. Four of these companies were asked to give presentations to a PPSRC technical committee comprised of 11 senior civil servants, who received technical advice from the World Bank and consultants. Four bids were eventually received by December 1997. Company A proposed a joint venture; Company B offered a bid for a 30-year concession agreement; Company C offered a package that included a joint venture, a concession agreement, delegated management and technical assistance; while Company D offered no specific form of arrangement.⁶ (Davies, 1997) Faced with a case of comparing apples with oranges, the PPSRC technical committee decided in early 1998 *not* to rule on who should be the winning bidder.

It has been difficult to establish who should actually be held accountable for the fiasco of this first bidding attempt. It has emerged that the problem stemmed, to a large degree, from differences in opinion among the institutions involved. The PPSRC technical committee favoured a joint venture followed by a concession. This reflected the government's key concern – which was to bring in the much-needed investments that then seemed only multinational private companies can provide. But the key problem was that the government was not in a position to any sufficient cash or infrastructure as equity to a joint venture. The African Development Bank, a co-financier, favoured a management contract as the best option given the weaknesses of DAWASA's management and the state of its infrastructure. Investing in DAWASA was deemed a risky venture, hence the best arrangement is a management contract that can put the utility in order first before investments are poured into it. The other major player, the World Bank and its adviser, favoured a lease arrangement. A lease will not involve investments, but will give greater leeway for the private operator to implement reforms, including controversial changes like the reduction of staff or the prosecution of illegally connected users. These differences were sorted out and by the end of the 1998, and the three parties agreed that the best option was an 'operating lease contract.' (Davies, 1997; PPSRC, 1997; PPSRC, 1999)

By June 1999, a "Supplementary Information Paper" was issued to bidders for a lease contract. Bidders were to make two types of bids -- a technical bid on how they plan to run the utility and address its various problems; and a financial bid on how much they will charge consumers. Only when a technical bid is approved that the financial bid will be opened. However, only two French companies -- SAUR International and Groupe Generale des Eaux (now Vivendi) -- submitted bids for this new round. They passed the

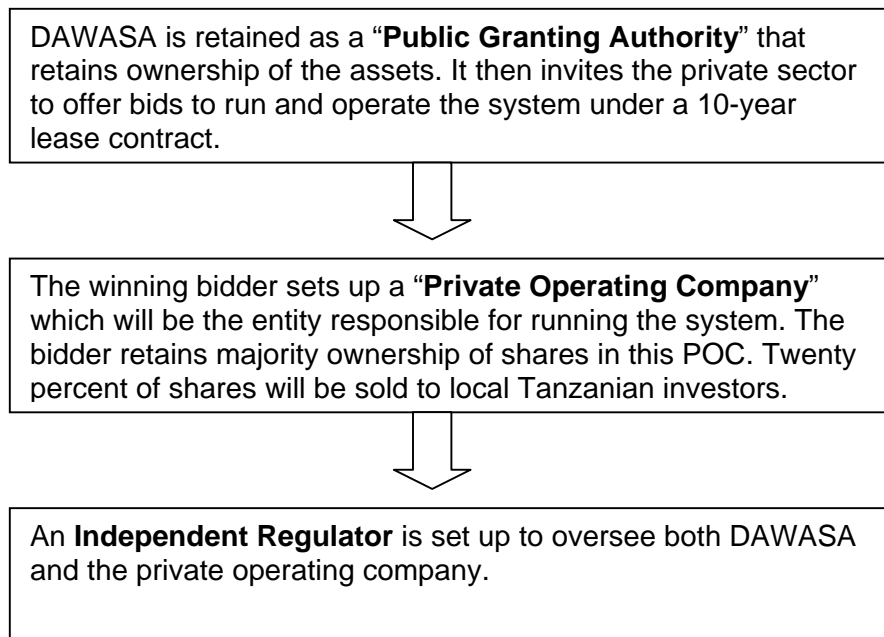
⁶ The companies could not be named, owing to confidentiality agreements with the sources of this information.

technical bidding phase, but when their financial bids were opened in late February 2000, they were found to be non-compliant with the bid document. The government proposed a partial re-bidding for a 10-year lease, but postponed the process because elections were to be held in October 2000. ([The Guardian, 2000](#))

The re-launching of the bidding process was not made until April 2001. A private company was re-engaged to prepare new bidding documents and invitations, which came out in July 2001. The plan was to select the preferred bidder by late 2001, but until the first quarter of March 2002, no bidder has been chosen. The problem that emerged this time was that there were too few bidders.

The idea proposed for the new round of bidding is three-fold. First is to keep DAWASA as a public granting authority that will retain ownership of the assets. Second is to get a private operator to upgrade and run the utility on a 10-year lease contract. And third, to set up an independent regulator that will oversee both DAWASA and the private operator. Under this proposed scheme, the winning bidder will establish and register a private operating company (POC) in Tanzania, with the bidder retaining majority ownership of shares. Twenty percent of the shares will be made available for purchase by local Tanzanian investors. The POC will then be given a 10-year lease contract by DAWASA to run the city's water and sewerage systems. ([PPSRC, 2000](#))

Figure 3: Sequence of Relationships in Proposed PSP Set-Up

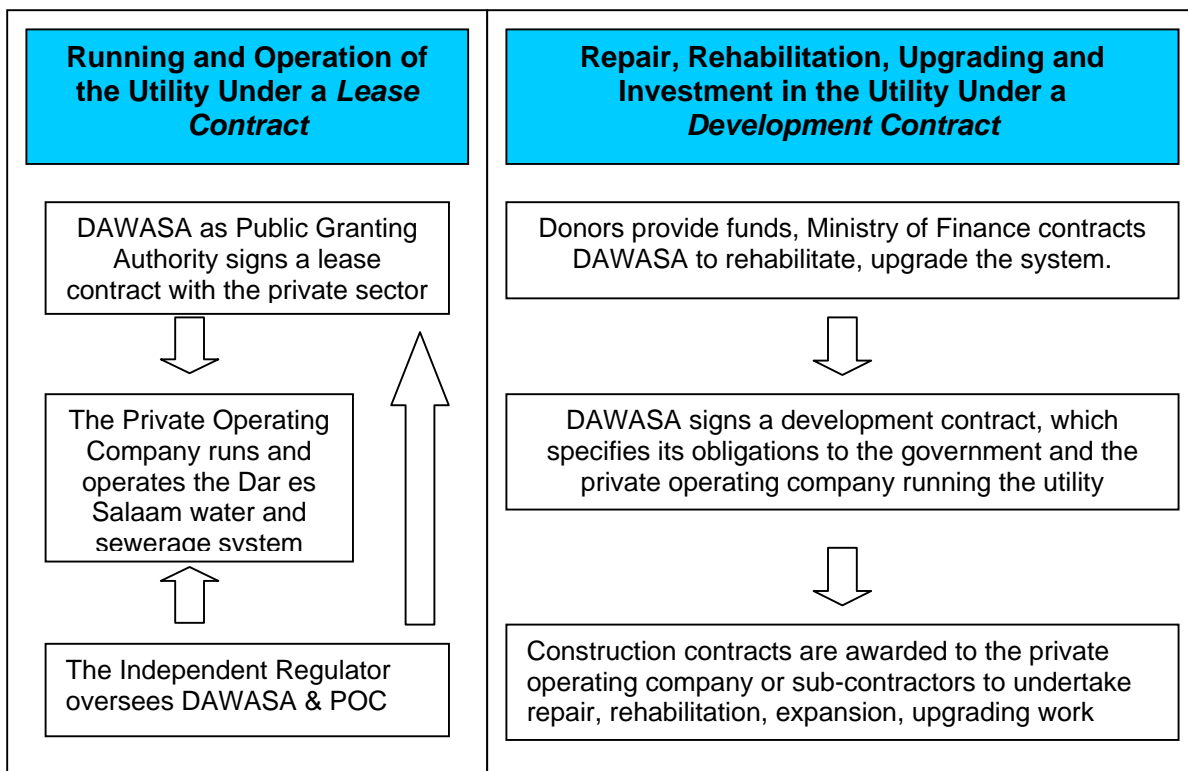


Like other lease arrangements, the Lease Contract does not cover provisions for investments to rehabilitate, upgrade and extend the water system to unconnected communities. Construction projects for the system are provided for in *another* contract -- the "Development Contract" that will be made between the Ministry of Finance and DAWASA. The Development Contract will specify the terms, conditions and obligations of DAWASA both to the government and to the POC appointed under the Lease

Contract. The POC will not be a signatory to the Development Contract, but will be provided with a copy for reference purposes. Financing for construction and upgrading work will be provided by the World Bank and African Development Bank. Thus, what may happen is: DAWASA the public granting authority and owner of the assets identifies the projects that are needed to improve the system; the POC or sub-contractors are given money by the banks to undertake construction work. Eventually, Tanzania will pay back the financial resources provided.

It is crucial to distinguish between the Lease Contract and the Development Contract in order to make sense of this complex arrangement. The Lease Contract will be an arrangement between DAWASA and the POC. Issues like the possible retrenchment of DAWASA staff, the repair of leaks, the prosecution of water thefts and illegal sale of water, the introduction of meters, and most importantly, pricing, will be covered under the Lease Contract. The Development Contract is an entirely different arrangement involving construction projects that will be funded by the World Bank and African Development Bank and implemented by the POC or sub-contractors. It is a contract between the Ministry of Finance, as representative of the national government which is the 'recipient' of the funds, and DAWASA, the independent public body that will get to own whatever assets are constructed. The critical issue of extending the water network to the poor, unserved areas, along with technology and design choices (e.g. whether public standpipes or individual household connections will be built) are matters covered under the Development Contract. But DAWASA itself will not implement the construction projects -- it will be responsible for the award of all construction contracts for the extension and upgrading of the system within the provisions of the Development Contract.

Figure 4: Distinguishing between Lease Contract and Development Contract



The independent regulator to be established will monitor contract performance and compliance against targets and outputs, ensure that service standards are met, and keep a balance between the interests of the consumers and the investors. It will provide tariff guidelines, but it will technically be DAWASA's job to decide on and set the prices. However, in reality prices are determined by the bidding process. The company offering the lowest price to consumers in the financial bid will likely be awarded the Lease Contract. There is a possibility that a bidder offering a slightly higher price but with better or more feasible technical bids may win the bidding process. DAWASA will therefore set the price according to the price set in the winning bid.

Box 1: DAWASA's Policies on Tariff

DAWASA has lined up policies that will help low income households to access water supply under private operation:

Social Connection Policy - A household wishing to have a private tap connection within its yard will be asked to deposit six months payment instead of paying for connection costs.

Life-line Tariff - Consumption below the lifeline monthly amount of water per family (10 cubic metres) will be charged a minimum flat rate. Consumption over this amount will be charged at regular rates.

Density of Connection - In high density areas, DAWASA and the private operator will connect all houses within 30 metres of the main pipe so long as they meet the connection costs and monthly payment of services.

Amnesty - an amnesty is given to those who are illegally connected - that is no prosecution will be brought forward on condition that they register and legalise their connections.

There is therefore a two-step process in understanding the complexity of the PSP scheme in Dar es Salaam. First is to distinguish between the Lease Contract and the Development Contract. The Lease Contract is a relationship between DAWASA, an autonomous public body, and the private operating company. DAWASA wants to hire a more technically competent entity to do work that it has had enormous difficulties dealing with. This relationship is not much different from a house owner hiring a plumber. The plumber gets paid for doing a job that the house owner specifies and approves. The development contract on the other hand is essentially a relationship between Tanzania and its donors/financiers. Tanzania is given the loans it needs to rehabilitate and upgrade its water system, once it meets certain requirements of the lenders. This relationship is comparable to the house owner negotiating a fresh set of loans with his mortgage provider. Lenders ensure that the money they loan will be used properly and that it will be paid. They also want a number of guarantees. In the case of the mortgage provider, they keep the title to the property until the full mortgage is paid. In the case of donors and lending institutions, they impose a set of guarantees that minimise the risk of non-payment or protect them against non-payment. What is not clear and so apparent are the guarantees that donors are imposing on Tanzania so the country can qualify for fresh loans needed for the rehabilitation and expansion of the water system.

The second step is to look at the links between the Lease Contract and the Development Contract, and see the dynamics that may emerge. For instance, the Lease Contract may specify that the private operating company should improve billing (i.e. have more registered customers) for the water that DAWASA provides. However, meeting this performance target may be dependent on certain construction or repair work, or on the purchase of meters - expenditure that are covered under the Development Contract. This simply means that the private operator may not be able to meet many of its obligations under the Lease Contract if certain portions of the Development Contract are

actually implemented and carried out on time. This is one of the reason why a not a few commentators have stated that the Lease Contract is most difficult to manage among all the different forms of PSP. It is much more difficult to pin responsibility or blame for inefficiencies or investment mistakes, as compared to a concession, where the private sector takes responsibility for investments as well.

One common lender conditionality in situations like in Dar es Salaam is to ask that a Lease Contract is signed, before funds are approved for the Development Contract. This is only rational. A Lease Contract with a reputable company running operations, to a large degree, will ensure that whatever money is provided in the Development Contract will be used wisely. Also, typically, the setting up of a Private Operating Company, is the key mechanism for repaying the loan. The POC sets up a bank account, and collects tariffs from the customers. Once revenues pour into this bank account, it will automatically remit payment to the lenders. This financial set-up is extremely more difficult if a government body (a sovereign institution) involved.

A number of important not-so-clear issues emerge at this point. First, it is not clear whether under Tanzanian law, a private operating company may be empowered to collect money from consumers-citizens. If not, then DAWASA will have to collect the money, and in which case, new financial arrangements have to be structured. Second, the conditions and guarantees that the lenders want from Tanzania – which may finally lead to the speedy grant of loans that is the most urgent matter for the unconnected urban poor residents – are not that clear.

There may also be a number of latent issues that are influencing the process. For instance, if the transmission lines are rehabilitated and billing is made efficient, the shambas and farms benefiting from state of decay of the lines would lose their privileges. How they are affecting the debate should be made clear. Also, the construction contracts are a potentially huge fuel for corruption. They will in total run into hundreds of millions of dollars, and vested interests may be positioning themselves to reap windfalls from the award of these contracts.

Relationships are therefore complex, and have many underlying sub-texts.

Section 3: Voices from Temeke

Temeke, one of three municipalities that comprise metropolitan Dar es Salaam is typical of sprawling, 'spontaneous', settlements in a growing city of a developing country. Each day, a small army of informal, street entrepreneurs -- water vendors working individually -- bring the community to life by criss-crossing the roads to haul and deliver 20-liter plastic containers of water from a diversity of sources to their customers. They perform a valuable service, a coping mechanism that has emerged in this low-income settlement of 1,325,368 people where formal water and sanitation services are largely unavailable. (CIP, September 2000) Water vendors have become indispensable to life in these streets. Some enterprising individuals provide informal sanitation services as well -- by hauling solid wastes from households to dump sites around the settlement, and by serving as 'frogmen' who empty pit latrines for a fee.

Temeke comprises roughly half the population of Dar es Salaam. It is a legally recognized settlement, which means that it has a basic network of roads laid out according to a plan made in the years of Tanzania's socialist government. This also means that in theory, there exists no illegal or 'invisible' settlement in the area -- squatters possess some kind of land tenure security because they are occupying government land. But because it is spontaneous and unplanned, most of the households that have sprung up followed no regular, measured pattern. It is now common to find a small six-room house being shared by six different families. It is now difficult to find a road in good condition that is made nearly impassable by the rainy season. Temeke is largely an unserved area as far as services are concerned. Electricity connections, like water and sanitation facilities, are self-improvised. (WUP No 5, April 2000) Most of Temeke's residents live in poverty, earning less than US\$1 a day. They are mainly migrants from the poorer rural areas looking for work in the city, but remain unemployed for long periods of time. Thus, many of them become informal entrepreneurs -- like water vendors, whose only starting capital is their brawn to carry loaded water containers around the community. The quality of life in areas like Temeke is reflected in the national life expectancy figure of Tanzania -- a person born today is likely to live only for 48 years.

Access to safe water as well as adequate sanitation facilities is on top of Temeke's many problems. There is no reliable estimate of water yield from various sources in the area; one estimate made is that it is only 33% of demand, or a yield of 6.14 million gallons (27.91 million litres) per day against a demand of 19.49 million gallons (88.6 million litres) per day. (Stakeholders' Coordination Committee, 2001). There are no sewer lines, and only a very few are able to afford septic tanks. Pit latrines are the main form of sanitation services, followed by open defecation.

Box 1: Zainabu Rajabu from Tungi Street explains her daily life:

"I have to wake up early around 5 am every day before people go to the mosque for morning prayers. I can have 30 minutes collecting up to five small buckets of water."

"We normally have to ensure that we reach the place before the water vendors come, as they push us backwards when they collect the water. We are not strong enough to resist which means we have to wait longer, and at some times, you don't even get to get water. We are forced to buy water from a vendor taken from the same source by as much 100 shillings or more per jerry can."

Life in the Community

Results from a preliminary sampling of enumeration sheets reveal many things about daily life in Temeke.⁷ First, it is quite clearly a poverty-stricken community where nearly two out of every three income-earning resident struggle to earn less than US\$1 each day.

Table 1: Income levels (in Tanzanian Shillings per week)

Income group	Frequency	Percent
Less than 1000	21	13.1
1001 to 2000	16	10.0
2001 to 5000	33	20.6
5001 to 10000	47	29.4
10001 to 15000	26	16.3
15001 to 20000	6	3.8
Above 20000	11	6.9
Total	160	100.0

Note: One US dollar is equivalent to 946 Tanzanian shillings (as of May 2002). Rounding it off to the thousand, we can say that a person earning 7000 a week is earning about US\$1 each day. The table shows that most respondents (47 cases) earn from 5000 to 10,000 shillings per week. A total of 73.1% of respondents earn 10,000 shillings and below each week.

Forty-seven percent, or nearly one out of every two people you meet in Temeke are self-employed petty traders. They may be water vendors or youngsters who run down city intersections to sell anything from sweets, softdrinks, sunglasses to furniture. Nearly one out of every five are seasonally employed, meaning they are part-time farmers cultivating small plots in vacant spaces of the peri-urban areas, or seasonal workers. Some 9.4% have more stable employment as government employees, and 5% are employed by private firms and enterprises as handymen, security guards, or skilled workers. About 7% are artisans. About 12.5% indicated they were not employed at all, dependent on the income of relatives, or from rents they charge to families living in rooms of their houses. However, it is quite obvious massive *underemployment* is prevalent in the area. Petty trading, seasonal jobs, part-time employment are also highly risky jobs, and strictly speaking, could not be categorised as regular employment. The poor's ability to survive is shown by how many of Temeke's residents are able to squeeze themselves into some form of income-earning activity that they classify as employment.

⁷ For purposes of this case study, we have randomly selected 160 enumeration sheets from over 4000 that were collected in the course of the community research in Temeke. There are problems of 'representativeness' in this sample, but we are nevertheless confident that the picture it presents is not too far away from what the reality on the ground actually is. We have done this exercise (a preliminary demographic analysis based on the sample) to present a much more clearer picture of life in the urban poor communities.

Table 2: Employment in Temeke

Type of employment	Frequency	Percent
Fully employed in government	15	9.4
Fully employed, private sector	8	5.0
Seasonally employed	24	15.0
Petty trading	75	46.9
Self-employed (artisans)	11	6.9
Part-time employment	3	1.9
Not employed	20	12.5
Retired	4	2.5
Total	160	100.0

None of the Temeke residents in the sample have gone beyond secondary education. Two-thirds have undergone some form of primary education, while 13% have received no education at all. For every male that had no formal education are two women similarly without education. Those who have not received education tend to be 51 years old and above.

Table 3: Educational Attainment

Education Gained	Frequency	Percent
No formal education	18	11.3
Primary level	107	67.3
Intermediate level	1	.6
Secondary level	33	20.8
(missing answer)	1	.6
Total	160	100.0

The enumerations did not cover information on residents born from 1986 onwards, to see whether access to education improved or deteriorated after the adoption of the IMF structural adjustment programme. The sample had a fairly normal distribution of ages (see Table 1), and there are more women (51.3%) than men (48.8%).

Table 4: Age distribution of respondents

Age group	Frequency	Percent
16 to 25 years old	25	15.6
26 to 30 years	32	20.0
31 to 40 years	45	28.1
41 to 50 years	25	15.6
51 to 60 years	18	11.3
Above 60	15	9.4
Total	160	100.0

There are a variety of settlements in Temeke. There are low density areas, like the Ferry area where houses are dispersed and tend to look more like a rural neighbourhood. But

there are also high-density areas, like Keko Mwanga, packed tightly in spaces between industrial estates and enterprises. Fifty-five percent of those interviewed owned their houses, meaning they built the houses themselves but are not necessarily the owners of the land on which those houses stand. There are few tin shacks in Temeke, as most houses are permanent but are constructed of materials that the house owners could afford. Housing is an entitlement guaranteed in Tanzania's socialist years. House tenants are about 34%, and a case (0.6%) was recorded of a resident living in a government-provided house. The rest of the respondents are relatives of the homeowners.

Table 5: House ownership status

	Frequency	Percent
Self-owned house	88	55.0
Tenant in a private house	54	33.8
Living with relative	17	10.6
Gov't-supplied house	1	.6
Total	160	100.0

The average number of people living together under one roof is six to ten. What was surprising though was that there were houses with 15 or more people. The highest recorded number was 38 people living in one house – most of them children of tenants who are migrants into the city. It is not unusual to find houses in Temeke with six families of up to five members, each living in six 6ft X 8ft rooms.

Table 6: Number of people living in the house

Number in 1 House	Frequency	Percent
1 to 2 people	11	6.9
3 to 5 people	40	31.9
6 to 10 people	70	43.8
11 to 15 people	17	10.6
Above 15	22	13.8
Total	120	100.0

Fifty-six percent have lived in their communities for 6 years or more. One out of every five have lived in Temeke for more than 15 years. Some 30% are recent migrants. At least 13.1% moved into their houses within the last year.

Table 7: Length of time living in Temeke

Number of years	Frequency	Percent
Less than 1 year	21	13.1
1 to 5 years	49	30.6
6 to 10 years	40	25.0
11 to 15 years	17	10.6
Above 15	32	20
(missing)	1	.6
Total	160	100.0

Residents in Temeke typically rely on a number of sources for their water needs. In the overcrowded Keko Mwanga area for instance, the water table is high, lying just about four feet below the ground. Residents thus dig wells, which they line up with used car tyres. Keko Mwanga is literally dotted with hundreds these hand-dug, tyre-lined wells, which they use for their washing needs. They will then go to neighbours with DAWASA connections, or to water vendors, to get their drinking water. The distribution of drinking water sources is presented in Table 8. Note that there is a high number of people availing of water from kiosks (35.6%). This is because a big number of respondents in this research are residents in areas where WaterAid has assisted in setting up eight community kiosks. Also, it should be noted that only 8 percent indicated that they relied on water vendors for their drinking water source. This apparently low figure is explained by water vendors being only secondary sources for many users. Also, the construction of community kiosks has put some water vendors out of business. They only do their trade when electricity fails, since water in the kiosks are pumped by electric motors.

Table 8: Main drinking water source in Temeke

Source	Frequency	Percent
Traditional wells	25	15.6
Community kiosks	57	35.6
Private DAWASA connection	13	8.1
Neighbour's DAWASA connection	34	21.3
Neighbour's well/pump	12	17.5
Water vendor	13	8
Others	6	4
Total	160	100.0

Income does not appear to have any bearing on access to a DAWASA connection. There are 17 'high-income' respondents in the sample earning Tshs. 15,001 or more each week. Only one had a private DAWASA connection; 6 relied on traditional wells; 6 on community kiosks; 3 on a neighbour's DAWASA connection; 1 on water vendors and 1 on a private well. In contrast, there are four out of 21 low-income residents earning less than Tshs 1000 each week with a private DAWASA connection in their houses. These were most probably connections constructed under the socialist government. Ten low-income residents relied on their neighbour's DAWASA connection.

Sanitation, as expected, is a huge problem. Three out of every four respondents said they did not have any system for disposing of their solid wastes. About 22%, mostly those in the peri-urban areas where space is available, dig garbage pits to bury their solid wastes. Only 2% benefit from solid waste collection made by contractors hired by the city government. These are residents whose houses are on the main streets which are accessible by the garbage trucks dispatched by the contractors.

Wastewater disposal is an even greater problem. Only 2 respondents (1.3%) revealed they had a septic tank. Some 76.3% use pit latrines with open drainage, while 22.5% were not even using pit latrines, relying on open defecation or using putting their faeces in plastic or newspaper that gets thrown away with the solid waste.

Again, income appears to have no significant bearing on sanitation use and hygiene practices. Two out of 17 'high-income' earners were not using pit latrines, but it can be they have access to other more sanitary facilities, perhaps in their places of work. In contrast, 5 out of 21 low-income earners did not use any system for wastewater disposal. Those who had septic tanks were in the middle income range.

Similarly, there appears no relationship between educational attainment and sanitary/hygiene practices in Temeke. Of those who received secondary education, two out of every three had no system for solid waste disposal, while about one out of every four had no system for wastewater disposal. Comparisons are shown in the two tables below:

Table 9: Education and Solid Waste Disposal

	No formal education	Primary education	Secondary education	Total
No system of solid waste disposal	14	82	23	119
Uses self-dug garbage pits	4	21	11	36
Refuse collected by city contractor		3		3
Small-scale collector		1		1
Total	18	107	33	160

Table 10: Education and Waste Water Disposal

	No formal education	Primary education	Secondary education	Total
No system of wastewater disposal	5	23	8	36
Uses pit latrines and open drainage	13	83	25	121
Uses a septic tank		1	1	2
Total	18	107	34	160

PSP Issues

Community awareness of processes taking place on the part-privatisation of Dar es Salaam's water and sewerage system is extremely poor. Generally, there is a lack of understanding of what is going on, especially in the areas not reached by the piped distribution network. More than half of those interviewed in Temeke are not even aware that these processes are happening. Of those who have some awareness, there is no basic understanding of what the PSP policy is, nor is there understanding of what will change in DAWASA when the policy is implemented. At least 15% of respondents interviewed have not even heard of DAWASA. Some 30% indicated that they got their information from the print and broadcast media. There is no public education to sensitise people on the PSP process. The changes and the relationships that are starting to

emerge from these changes are indeed confusing. It is therefore no wonder that many residents of Temeke who had some awareness of the process are apprehensive and generally suspicious of what might happen. But there is a great deal of ambivalence as well, as some residents, tired as they are of the inefficiencies and failures of DAWASA, are willing to see some hope in the privatisation process.

A number of issues and concerns emerged from the interviews and enumerations made in the course of the field research. These are:

- Four out of every five indicated that the extension of the piped distribution network into their area is of utmost priority. Proximity to water sources like standpipes, and reliability of supplies, are, in general, more urgent issues than cost to most of the respondents. But there are a number who felt strongly against the reported increase in water tariffs when a private operator takes over. Women are mostly those who are concerned with the imminent increases in tariff.
- There is cynicism in Temeke that low-income communities will be considered at all in the scheme. One out of three people think the PSP process will benefit only a few individuals with the money and the connection to powerful people. There is pessimism that the majority of poor communities will be served. Higher- and middle-income communities will be prioritised. There are even those who doubted if the plan will at all take off.
- A number were of the opinion that the proposed changes will benefit foreigners primarily. The interests of foreign investors are going to be prioritised over the interests of poor people. It is not the mission of profit-seeking companies to serve the poor. Also they believe that the changes will fall into the same pattern of foreigners extracting huge benefits, such as resources, big salaries and top jobs. In contrast, employees of DAWASA who will lose their jobs are not even sure of getting retrenchment benefits.
- Water vendors are hostile to the PSP idea. Some are threatened by any change that will remove the need for vendors. "PSP" is increasingly associated with the loss of employment and opportunities for survival. However, there are some water vendors who believe that even when a private operator takes over, they still could not cover the entire city, or that this will not happen overnight. Hence, they see themselves hanging on for some more time.

The Costs of Water for the Poor

The current water supply tariff is such that the low-income areas pay a lower rate compared to the medium and high-income areas. Commercial and industrial consumers pay the highest tariff. A flat, post-consumption rate is charged to customers. The lowest rate charged by DAWASA is 10,000 Tanzanian shillings (approx. US\$10 dollars) per house, irrespective of the volume of water used. In the low-income communities, most people would earn between 20,000 to 40,000 shillings a month. The DAWASA charges are therefore considered unaffordable, and many with connections don't pay them anyway because of intermittent disruptions in the supply.

Most, but not all, house owners in poor communities with piped connections are engaged in retailing water to their neighbours. Some retail their water to regular customers at a fixed rate of 1,000 to 1,500 shillings per month. They will have at least 10, sometimes as high as 15 neighbours who are regular customers. Some retail their

water at a price of 20 shillings per 20-litre bucket or plastic container. Queues often form to their faucet, comprised of regular customers as well as per-bucket buyers.

Water retailers are found mostly in the areas with DAWASA connections. In areas without DAWASA connections, the community relies mainly on the water vendors. Water vendors, on average, charge at 100 shillings per 20-litre bucket. However, their rates vary. In areas where a water source is closer, the vendors would charge only 50 shillings per 20-litre bucket. In areas far from water sources, or during difficult days, vendors would charge up to 200 shillings per bucket; there have been crisis days when they charged up to 500 shillings per bucket.

A comparison of rates paid by the poor is presented in Table 1 below:

Table 1: Comparison of drinking water charges paid by poor consumers

Type of poor consumer	Amount paid per month and volume consumed	Paid to
House with a piped connection to DAWASA	10,000 shillings, no limit on volume	Flat rate paid to DAWASA
Household who buy water from a neighbour on a regular basis	1,000 to 1,500 shillings, average of 4 jerry cans per day	Flat rate paid to owner of piped connection or private well
Household who buy from water vendors	2,400 shillings, average of 4 jerry cans per day	Rate paid to water vendor per jerry can delivered

Note: Households that buy from water vendors get water for washing or bathing from other sources, e.g. shallow wells, rivers, etc.

The Small-Scale Providers

The *wauza maji wa mikokoten*, or water vendor with pushcarts, is the stop-gap solution that has become the nearly permanent and institutionalised response to Dar es Salaam's water distribution problems, particularly in the low-income areas. With supplies being acutely unreliable, and usually having no means to fetch safe water from far distances, residents in low-income communities rely on the *wauza maji* to supplement their drinking and cooking water needs. Small-scale commerce in water distribution is the only means for communities like Temeke to gain access to relatively safe drinking water.

Water vendors purchase/get their water from a diversity sources: mostly from owners of private water connections; but sometimes from illegal taps, public standpipes and community kiosks. In Yombo district in Temeke, water vendors purchase water from a community-managed water kiosk set-up by the WaterAid, and re-sell them to their customers. Oftentimes, queues for water sources are comprised mainly by the vendors, as their time on these queues is also what they are paid for. The vendors usually purchase water for 20 shillings (US\$0.025) per 20-litre jerry can and re-sell it, on average, for 100 shillings (US\$0.125). On extremely water scarce days, they have been known selling water for as much as 500 shillings per jerry can.

The vendors move around in carts, which they load with 6 to 10 containers, depending on the size of the cart. An associated business has grown out of the trade of the water vendors -- the manufacture and hiring out of the handcarts. Vendors that have enough savings purchase their own cart for around 30,000 shillings (US\$32), or rent them for 500 shillings a day. It is estimated that more than half of the vendors do not own the handcart they use. These handcarts are made from backyard workshops. It will have metal frame welded together, and placed on top of cycle tyres or improvised wheels. In lieu of rent, some handcart owners will require a vendor to deliver a trip of water to their homes at the end of the day. A trip from the water source to customers is enough for them to break even. But the number of trips made each day is also dependent on the length of time they spend on the queues. A vendor usually makes 3 to 4 trips for a 12-hour working day, starting at 6 AM and ending at 6 PM. On a good day, they can make up to 5 trips. During crisis days, they can work well into the night or get up before dawn, especially if that is the only time when water flows out of the taps.

Box 3: Mr Hemedi Ali, a water vendor from Keko Mwanga B is saying:

"I started this business a year ago. Before, I was a security guard at CCM offices and one day we were invaded by bandits and I was severely injured. After I recovered I decided to find another job that will not threaten my life. Relatives gave me capital to buy equipment to start this job."

"I start at 6 am collecting and distributing water to my five regular customers. By 9:30 am, I am packing to wait for other customers."

"I buy water from households with DAWASA connections for 20 shillings per jerry can and sell them for 100 shillings. I normally sell between 18-24 jerry cans per day. The price can change depending on the season, if there is a shortage, and distance of the customer from the source. When demand goes down, like in the wet season, prices go down."

"Everyday, you have to ensure you start earlier to get many customers, as there is more demand in the mornings than the afternoons. For us, we are happy with the water problems of the city as it is what makes us survive."

A family of five with enough cash for the day may purchase up to 4 jerry cans (80 litres) each day. Hard up families will purchase only 1 jerry can (20 litres), and get their non-drinking water needs from other sources, like shallow wells, traditional sources or rivers. For washing clothes, poor families usually don't care if they use not-so-clean water. Water purchases are usually made on a daily basis. Residents will purchase water from any vendor who comes by. Those with stable incomes can make long-term arrangements with individual vendors for regular deliveries.

Selling water from a private domestic connection is prohibited, since only DAWASA is empowered by law to sell water. However, given the prevailing circumstances of widespread shortages, this prohibition could not be enforced. Many retailers with private connections do not see themselves as profiteers living on DAWASA's water, but rather as good neighbours helping out those in need. Vendors just go on with their trade despite the threat of sanctions. To date, there seems to be no case of a water vendor or an owner of a private connection being prosecuted for engaging in the sale of water. In fact, some retailers and water vendors are known to be ex-DAWASA employees.

Different types of investments are needed for the commerce in small-scale water distribution. Families will have their own jerry cans, which cost about 1,500 shillings. Vendors who own their carts will also have to buy their own jerry cans. The cost of

maintaining the carts is minimal, as it only needs the replacement of tyres or welding worn-out joints. Carts wear out from 2-3 years of use, and can be re-welded and new tyres refitted for 4000 shillings. Owners of private connections will often invest in 1000-, 5000- or 10,000-litre holding tanks. A 1000-litre holding tank may cost up to 100,000 shillings. There will be added costs on the plumbing.

Water vending is a very flexible trade. It is estimated that there are actually more vendors than handcarts. Some vendors work part-time, and are engaged in other work as well. In the rainy season for instance when residents can rely on rainwater, the demand for water vendors go down, so many of them find other means of livelihood. Water vending is also very flexible for the low-income consumer -- water is delivered to their door based on their immediate need and economic ability. Then if families have no money, they get the water themselves.

Water vending is also market-regulated. Prices are not determined by a set of officials, but by what emerges from day-to-day negotiations between vendor and consumer. Hence, prices fluctuate -- water automatically becomes more expensive in the lean days when the vendor can make less trips in a day.

Some figures on Temeke's water use can be extrapolated from data on Temeke's population of 1.3 million and the official estimate that at least 75% of this population rely on water vendors. We can say that there are 994,026 persons (75% of 1.3 million) in Temeke relying water vendors. If we assume that average family size is five, this means that there are 198,805 families (994,026 / 5) in Temeke reliant on the vendors. Let us assume further that each family consumes 20 litres per day of drinking water. This means that water vendors need to make 198,805 jerry can deliveries to each family each day. This is equivalent to 33,134 cart deliveries (198,805 / 6 jerry cans per cart delivery) each day. If each cart makes 4 trips in a day, we can thus say that there are about 8283 water vendors (33,134 / 4 trips per day) in Temeke.

(Suggest that these figures are an over estimate: Is 1.3m the population for the whole of Temeke district if so then the rural element needs to be removed from the calculation and only the urban and peri-urban population used. Parts of Temeke are on the DAWASA network and there are a number of borewell users (WA 7 wards plus others) this population needs to be accounted for and taken out of the calculation. At a rough guess I would think that there are maybe half the number of vendors and carts)

This estimate of 8283 water vendors operating in Temeke graphically illustrates the magnitude of the problem. In a situation where there are almost no piped water connections, it takes the labour power of 8283 water vendors to distribute drinking water to majority of Temeke's population. This army of water vendors individually takes net earnings of - on average - 1,800 shillings per day. These vendors, many of whom are threatened by changes that make water distribution more efficient, present another policy dilemma. Are they part of the problem or part of the solution to Dar es Salaam's water crisis?

Box 4: Mama X explains water selling from a DAWASA tap

"Water is always available at my house and neighbours come asking me to help. I can't stop helping them. Generally, I am not intending to generate profit, my intention is to help people get their water. Every household collecting water from this tap has to pay 1000-1500 shillings per month, depending on how big the family is. I am not making any profit from that -- they are contributing to the money I pay to DAWASA. There are nine neighbours who buy water here, I can't help them all so we have to share the cost I pay to DAWASA.

The Sanitation Situation and Small-Scale Vendors

There is no proper system of garbage collection, sewerage and drainage in Temeke. All respondents in the research revealed that they dig garbage pits for their solid wastes, and use pit latrines for sewage. Only 12.9% -- the middle class of Temeke -- have the more expensive septic tanks for their households. Thus, Temeke presents itself as an example of a sanitation bomb waiting to explode.

Again, small-scale entrepreneurs have become the temporary but now nearly institutionalised solution to most sanitation problems. The most extraordinary of these are the 'frogmen' -- professional, private pit latrine cleaners who work mostly on the "passport-size" latrines. These latrines are not fully built. Locals call them 'passport-size' -- a parody of how a person can have his passport-size photo 'taken' when he is seen inside the latrine. The passport-size latrines are often located in places inaccessible to pit-emptying trucks, hence, the need for frogmen. Frogmen work in groups of 2-4, and have been seen pouring a black liquid solution to overflowing pit latrines to kill the stench. They will then manually empty the latrines using buckets, and bury the sludge in a hole they have dug nearby. Because of the lack of space in crowded urban settings, pit latrine emptying has become a small trade in places like Temeke. The frogmen get paid around 20,000 shillings for each latrine emptied. Pit emptying by sludge trucks from DAWASA cost 25,000 shillings.

There are also small-scale entrepreneurs who collect solid wastes and garbage, especially from places inaccessible by trucks, and deliver them to collection points or mini-dump sites for a fee. This is often privately negotiated between the household and the entrepreneur.

In a growing number of cases, community organisations and NGOs are taking over the management of sanitation in these low-income communities. Funds are raised to provide for push-carts used for collection, and to set up a system of volunteers to do the work.

The privatisation of sanitation services is better received in the community, mainly because solid waste collection and disposal services significantly improved when the city privatised operations in 1994. ([WUP No. 5, April 2000](#))

(Suggest that you recommend that more detailed city-wide research needs to be undertaken on small scale independent providers – numbers, service coverage, total value of their operations, service render to customers. It should include: cart vendors; kiosk and yard tap operators; borehole operators –private and community; bulk tanker operators. Look at the findings of Kjellen and incorporate here).

Community-Based Water Projects

A number of NGOs -- like WaterAid, Oxfam, Concern International, Plan International -- have started to organise community-based water projects. WaterAid has eight such projects in Temeke. It has two projects in the Kurasini ward; two in the Yombo ward; three in the Kigamboni ward; and a project now in its initial stage in Keko ward.

A community-based water project involves setting up a social infrastructure that can manage community water and sanitation needs, like a local water committee and health committee. It will then proceed to build a physical water infrastructure, typically a community water kiosk. Water kiosks are located strategically in communities. The water committee employs people to operate and run the kiosk, where local residents can get water for 20 shillings per jerry can, or 10 shillings if there were less costs involved in setting up the kiosk. Community mapping in the wards where WaterAid works reveals that kiosks have now become the main water source for household drinking and washing. It also revealed local people are more aware of their particular water situation in these areas.

In areas where there are no water services, there has been a mixed reception towards the idea of community-based management systems. A number are enthusiastic, since it offers the first real sign of change and delivers water and would want their immediate community to be a beneficiary. But some are sceptical, comfortable as they are with the flexibility offered by the present system of water vendors. Water vendors too are threatened by community-based projects. In an area in Kigamboni ward, some water vendors have been rendered idle by lack of demand, as residents now have a tank tower managed and operated by a local water community, and powered by electric pumps that extract groundwater. The vendors get orders now only when there is a power failure, are increasingly becoming destitute.

Under the new proposed institutional arrangements of a private company operating DAWASA's system on a lease contract, there is much discussion on establishing community-based water management mechanisms. There is a concern that the low-income communities will be left out, either because they are too far away from present distribution lines or their supply will generate little revenues. The community mechanisms are meant to ensure that improved water supply and sanitation are delivered to the informal settlements, that arrangements are established for the sustainable operation of whatever system are built (e.g. standpipes or kiosks), and that better utilisation of water and improved sanitation are promoted, especially in the areas heavily affected by cholera and other water-related diseases.

The proposal is for DAWASA to set up a social fund that will finance the extension of the piped system to the unserved communities that meet eligibility criteria, and to fund training and other social mobilisation activities. About 40 water supply projects and 10 environmental sub-projects are being considered for funding under the social fund. (PPSRC, 1999)

Conclusion

A question that we confronted at the start of the research was whether PSP is an issue only to those who have water connections to DAWASA and not at all to the unconnected urban poor households. In other words, in Dar es Salaam's case, was PSP more a 'middle class' and less an urban poor issue?

In the beginning, it appeared to us that the PSP process was of less concern to the poor of Dar es Salaam as initially understood. First, any discussion of prices paid to DAWASA appeared irrelevant to the poor communities simply because they were not connected and had almost no dealings with DAWASA personnel. Why would tariff rates and tariff structure matter, when they were not connected. At least 15% have not even heard of "DAWASA". Furthermore, the actual costs they paid for their water were already extremely high. The key concern then of the poor was access not prices.

The first part of the research on the PSP processes in Dar es Salaam provides some leads into how access by poor communities can be developed. Getting the unconnected communities of Dar es Salaam connected to a piped water supply system will involve construction projects and massive investments. These construction projects are not issues covered under the Lease Contract being proposed. The Lease Contract will deal with such issues as reducing leaks, making billing and collection more efficient, prosecuting illegally connected users, reducing the employee-to-customer ration, tariff structure, and prices. Building access through construction projects is an issue covered under the Development Contracts to be funded by donors. Thus, if the goal is to connect poor communities, the question will be: How can the Development Contracts be expedited so that construction work can start as soon as possible?

The problem however is that donors need guarantees that the money they pour into the Development Contracts is not at risk from misuse, from being spent on 'white elephants', and from corruption. They need to be assured that a proper system is in place, where rational decision-making on the use of funds exist, where standards are clear and are followed, or where the value of investments are stretched out. These guarantees come only, in their view, when a Lease Contract for the operation and management of the water system is signed with a credible private operator.

In DAWASA's case however, there are too few takers of the Lease offer. (See previous comments)Most private companies with the experience, resources and skills to turn DAWASA around think that the water utility is a headache beyond any remedy and is not a viable business opportunity. Only two companies are taking the challenge, albeit nervously. The only way many of these companies can be convinced is if investments to reform DAWASA will be poured in. The problem then is a 'chicken and egg' situation. Which comes first, the Development Contract or the Lease Contract? This impasse is unlikely to be resolved soon.

It appears that the key step needed in getting the Development Contracts processed is to put in place guarantees that development funding will be used wisely. Are there ways then that other forms of guarantees – alternatives to the Lease Contract – can be developed so project funding can come in? We believe there are, and that these can be found right within the poor communities themselves.

First, the poor are willing to pay for an accessible and reliable supply of safe water. The best indicator is what they actually spend now in getting their drinking water from water vendors. They pay nearly five times as much as those whose houses are near public and private taps.

Second, water user committees or social infrastructures for community management and control of water systems are the best guarantees that costs can be paid, facilities are maintained, and that benefits are enjoyed from the construction of water sources. Water user committees are in the best position to decide on technology choices, on siting standpipes, on regulating local use, and so on. The 'construction' of water user committees is therefore as important as the construction of a standpipe, a bore hole or a water tank. Funds and time should be allocated for their 'construction'. Water user committees in urban poor communities are indispensable, whether under public or private operation of Dar es Salaam's network of pipes and water supply system.

Another guarantee is 'denser' relationships between water authorities and urban poor households. Usually, water authorities are seen face-to-face by urban poor households only when a disconnection will be made. In contrast, water authorities are better known in high-income neighbourhoods, especially since these neighbourhoods have better access to print media. Water authorities, whether public or private, need to develop closer relationships with poor communities – informing them about plans, getting their opinion to resolve problems, and so on. The 'denser' the relationships, the more likely that projects will succeed.

Should Development Contracts be approved, there are a number of issues that need to be considered. Foremost among these are the water vendors – what should be done in order to mitigate or reduce the dislocation in their livelihood that will be caused when the communities they serve gain access to a standpipe? Another issue would be the technology choice on the connection to be constructed.

(More later)

To sum up, the PSP processes of Dar es Salaam has been rather confusing and difficult to assess in terms of its likely impact on the poor. The problems, thus, could not be clarified, which make the search for solutions futile. The first step is to sort out the confusion. The key here is to make a distinction between the Lease Contract and the Development Contract. When this is made, it is easier to devise actions and interventions that need to be done. And much of the solutions are right within the communities themselves.

Suggest at an appropriate section you draft a short paragraph on local governance structure – city, ward and street government. These structures have to a degree kept a check on the level of exploitation and abuse of power at the local level. They are not perfect but it has not been a hype-exploitative and criminally-driven free market which has been able to fully exploit the poor. Tanzania's strong sense of equity, redistribution of wealth and national unity has ensured that the process at local level though heavily control has shielded the low-income and poor groups from the worst forms of outright exploitation.

Can these governance attributes be built upon by civil society, government and the social responsible elements of the private sector to ensure that citizens get a reasonable

deal on water. The use of international water companies though profit driven may also in the long run be less monopolistic in their practices. See their various statements and actions on corporate behaviour and responsibility. They are increasingly being heavily scrutinised by civil society and citizens groups. This research is a case in point and more needs to be done to develop and strength the links between citizen groups, research and national advocacy bodies and international civil society.

References:

- Boyd, Graham (June 2001). *An Overview of Private Sector Participation in the Dar es Salaam Water and Sewerage Authority: A Report for WaterAid-Tanzania*. WaterAid-Tanzania: Dar es Salaam.
- Brownbridge, M. and C. Harvey (1998). *Banking in Africa: The Impact of Financial Sector Reform Since Independence*. James Curry: Oxford. p195
- City Infrastructure Program (September 2000). *Report on....*
- Davies, John (November 1997), Report of the Short-term Adviser on the Privatisation of DAWASA, London
- Economic and Social Research Foundation (April 2000) *Overcoming Constraints on Tanzanian Growth: Policy Challenges Facing the Third Phase Government*. ESRF: Dar es Salaam.
- IMF/IDA (March 2000) Decision Point Document under the Enhanced Heavily Indebted Poor Countries (HIPC) Initiative – Tanzania, Dar es Salaam
- International Monetary Fund, International Development Agency (March 2000). *Decision Point Document Under the Enhanced Heavily Indebted Poor Countries (HIPC) Initiative - Tanzania*. Dar es Salaam. Pp. 5-8
- Jones, Stephen (April 2001). *Review of Economic Growth Prospects in Tanzania* (Draft Report). Dar es Salaam. p22
- Katunzi, J. (1998). "Managing Change in Tanzania Public Enterprises: Swallowing Bitter Pills," *The Institute of Finance Management (IFM) Journal of Finance and Management*, Vol 6 No 2, Dar es Salaam. Pp 14-23
- Ministry of Finance (February 2001). *Tanzania Public Expenditure Review – Financial Year 2001/02 for the Water Sector* (Draft Report). Ministry of Finance: Dar es Salaam. Chapter 2.
- National Bureau of Statistics (April 2001). *Trends in Poverty and Social Indicators: Tanzania 1991/92 – 2000 A Preliminary Analysis* (Draft Report). NBS:Dar es Salaam. p24
- Presidential Parastatal Sector Reform Commission (June 1997). *Improving Dar es Salaam's Water Supply and Sewerage -- A Strategy for Introducing Private Capital and Management*. PSRC: Dar es Salaam.
- Presidential Parastatal Sector Reform Commission (June 1999) Dar es Salaam Water and Sewerage Authority Divestiture – Supplementary Information Paper, Volume 3
- Stakeholders' Co-ordination Committee (2001). *Report*. Temeke Municipality: Dar es Salaam.

The Guardian (1 February 2000), Two French companies qualify to vie for DAWASA, Dar es Salaam

The Guardian (29 May 2001). "Seminar recounts formation of Parastatal Reform Programme". The Guardian Publications: Dar es Salaam. p3

United Nations Development Program (February 2001). International Development Targets/ Medium-Term Development Goals (IDT/MDG) Progress – United Republic of Tanzania, (UNDP Country Report). UNDP: Dar es Salaam. p18

United Republic of Tanzania (October 2000). *Poverty Reduction Strategy Paper (PRSP)*. Dar es Salaam.

United Republic of Tanzania (February 2001). *Tanzania Assistance Strategy - A Medium-Term Framework for Promoting Local Ownership and Development Partnership* (Draft 2). Government of Tanzania: Dar es Salaam. Pp. 3-5

Water Utilities Partnership Project No. 5 (April 2000) *Workshop Papers*. DAWASA: Dar es Salaam.

World Bank (June 2000). *Report and Recommendations on the Programmatic Structural Adjustment Credit for Tanzania*, (P-7376-TA). World Bank: Washington DC. p10