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FINANCING SANITATION IN DAR-ES-SALAAM “Current challenges and the way forward”

Faith Gugu, adapted from a paper by Sophie Tremolet and Diane Binder, commissioned by WaterAid in Tanzania

PURPOSE AND SCOPE OF THE STUDY

This study covers the 3 municipalities that fall under the Dar Es Salaam City Council: Temeke, Ilala, Kinondoni. It contains a more detailed analysis for Temeke municipality, where WaterAid has been active since 1997 and where additional data could be gathered.

The case study focuses on the provision of sanitation services, as per the definition used in Tanzania, which includes, “the provision of appropriate facilities and services for the collection and disposal of human excreta and wastewaters” (Water Supply and Sanitation Act, 2009). The case study examines the effectiveness of public finance for sanitation services at household level only. This may include facilities that are shared by a small number of families (e.g. neighbours) but excludes community facilities (i.e. shared by a large number of transient population in public spaces, such as markets or bus terminals) and school facilities.

The study focused on 2 key questions:

1. **Comprehensiveness:** are public funds allocated so that all segments of the sanitation value chain function effectively?
2. **Equity:** are public funds targeted to reach the poor?

2) BACKGROUND

Dar Es Salaam (DSM) is the major commercial city in Tanzania and the largest urban centre with an estimated population of 4 million growing at an average rate of 4.5% (Kingawa, 2009 as per the 2002 census). According to the most recent Poverty and Human Development Report (URT, 2009), 16.4% of those living in DSM are poor, with an average monthly per capita income of 108,053 TShs. Between arterial roads, large areas have developed into unplanned settlements that make up to 80% of the city, where hazardous terrain and the density of the population have

made infrastructure services difficult to provide. This is particularly true for sanitation: while construction of latrines is not an issue as most people in DSM have access to latrines, emptying services are not readily available. Consequently, there are frequent outbreaks of diseases such as cholera, malaria and diarrhoea: in DSM, close to 10,000 individuals were affected by cholera in 2006, although this figure had dropped to 250 in 2009, according to the Ministry of Health and Social Welfare.¹

Administratively, DSM is made up of 3 municipalities (Temeke, Ilala and Kinondoni) and is overseen by DSM City Council, which mainly plays a coordination role for activities across the municipal boundaries. For example, the City Council is a lead actor in the Citywide Action Plan for Upgrading Unplanned and Un-serviced Settlements. Each municipality is divided into divisions, which in turn are divided into wards, composed of several streets. Temeke, where the bulk of the analysis for this case study has been done, is the municipality with the highest prevalence of poverty and is also the one with the lowest population density and fastest population growth rate

Sanitation coverage - coverage at the National level and in Dar es Salaam

The Household Baseline Survey (HBS) 2007² shows that access to basic sanitation facilities has not improved in 5 years but is nevertheless close to universal access (Figure 2.1). However, the vast majority of traditional pit latrines, which are the most common type of household facility, are unimproved according to WHO/UNICEF Joint Monitoring Program (JMP) standards and unhygienic. The JMP estimates that, nationally, only 24% of Tanzanians have access to an improved latrine (JMP 2010), with 21% coverage in rural areas and 32% in urban areas

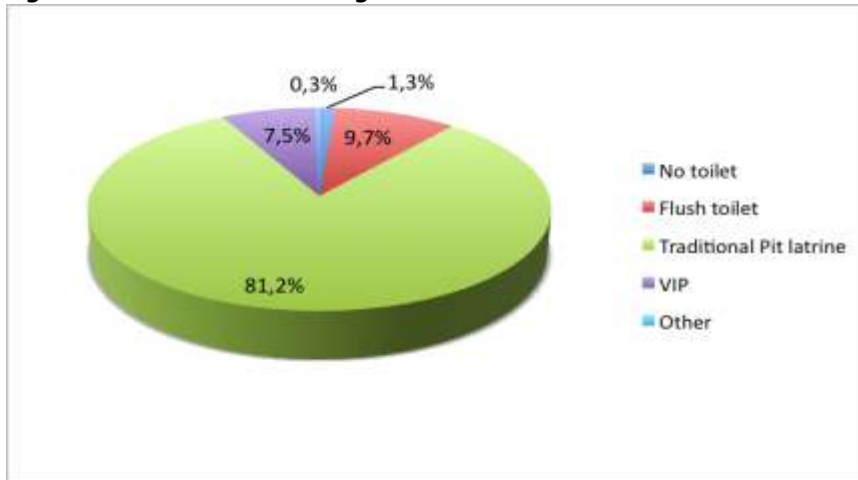
Dar es Salaam. There has been little change in the proportion of households accessing sanitation and sewerage services since the 1990s. Figure 2.3 below shows that close to 99% of the population in DSM report using a toilet of some sort, with over 80% of the population using a simple pit latrine, while 10% use flush toilets and 8% use VIP latrines (HBS, 2007)³.

¹ However, it is important to note that cholera is cyclic and trends can be seen across the region, which are affected by environmental conditions such as El Niño. Therefore, it is difficult to differentiate between the reduction in cholera outbreaks due to cyclic trends and due to a change in behaviour in the water and sanitation sector.

² The Household Budget Survey (2007) was conducted by the National Bureau of Statistics (NBS) during 2007. The full survey report, published in December 2008, is available to download from the NBS website: www.nbs.go.tz.

³ These figures are different than other sources, notably DAWASA, 2009 that shows that 70% of the population is connected to pit latrines, 13% to septic tanks and 10% to sewers. We are more likely to use these figures in the rest of the report.

Figure 2.2: Sanitation coverage in DSM



Source: HBS (2007)

Yet, most pit latrines are neither improved nor properly functioning, data show that about 38% of the population have access to “functioning” latrines, although how this is defined and whether these are hygienic is not clear.

Sewerage services in Dar es Salaam are provided to a small percentage of DSM population: while 10% of the population is connected to sewerage networks, only 3% of the wastewater collected through the networks is treated through stabilization ponds while 7% are discharged directly into the sea outlet⁴. The sewerage network is concentrated in the city centre and pockets of poverty are far from the network system.

Policy and Legislative Framework

Sanitation is treated as a cross-sectoral issue in Tanzania, and as a result, there has been a lack of leadership and direction, and chronic underfunding. The critical role played by sanitation and hygiene in preventing disease means that the Ministry of Health and Social Welfare (MoHSW) is the lead Ministry, though the issue has a low profile within the health sector. The Ministry of Water and Irrigation (MoWI) has also played a role, due to the complementarities of sanitation and water supply and the traditional linking of water supply and sewerage in urban utilities. However, sanitation has tended to be an add-on to water policy development until recently. A Memorandum of Understanding (MoU) between the four key ministries to undertake sanitation has been developed.

There is no single piece of legislation that guides provision of environmental health services. The Public Health Act (2009) has provisions for sanitation and hygiene, while the Water Supply and Sanitation Act (2009) extends responsibility to utilities for the management and the monitoring of sewerage, wastewater disposal (including wastewater stabilization ponds and disposal of sludge from pit latrines), on site sanitation, and strengthening of the private sector, including in unplanned settlements. However, municipalities (including the Municipal Councils in DSM) have overlapping responsibilities for waste (solid and liquid) management.

⁴ These figures come from interviews with DAWASA officials.

Financial Flow

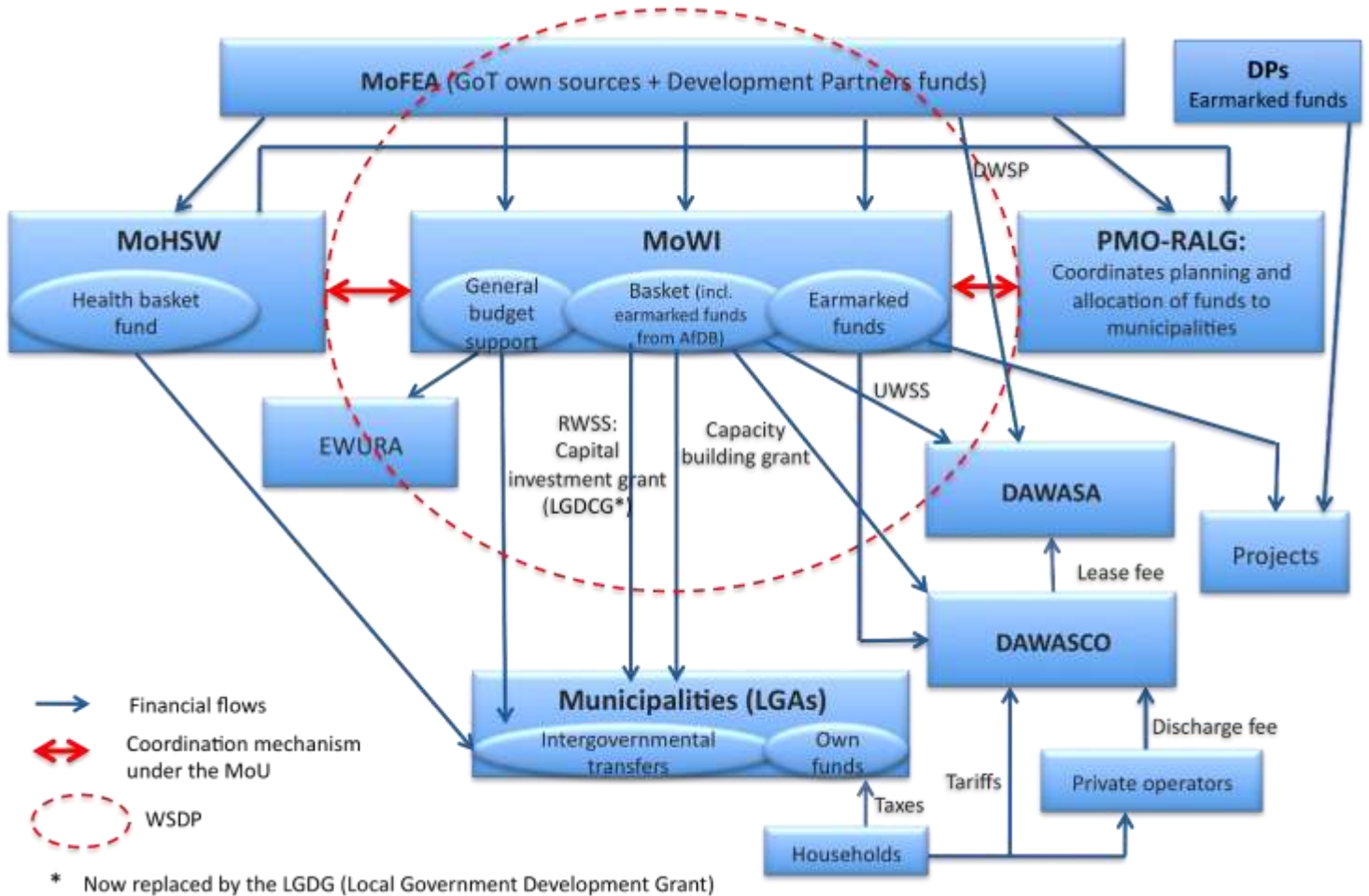
Coordinated financing mechanisms for the water and sanitation sector in the form of a sector wide approach were put in place in 2006. The MoFEA is the recipient for the bulk of donor funding (except earmarked funds going directly to projects) and government own resources and as such, allocates available funds to the various ministries. The major part of funding for the water sector (including some funding for sanitation), i.e. 85%, actually comes from development partners, while the remaining 15% come from the government own resources.⁵

Funds under the WSDP come from three funding sources:

- The Government of Tanzania (GoT) contribution – from General Budget Support and own revenues. The GoT was intended to be the largest contributor to the WSDP but has not honoured its initial commitments.
- A sector-based basket funding system, with a holding account at the Bank of Tanzania, where funds from the WB, AFDB, KFW and the RNE (Royal Netherlands Embassy) are released and allocated to sector programme activities. Sanitation and sewerage activities fall under Components 2 and 3, respectively RWSS and UWSS. Basket funding is therefore one of several financing channels for funds under the WSDP.

⁵ Public Expenditure Review of the Water Sector, World Bank, September 2009

The Health Basket Fund. In addition, funds to the sector are allocated via the Ministry of Health and Social Welfare through the Health Basket Fund. Funds are then allocated to districts in each of the 21 regions (according to the Health Basket Fund allocation formula) as well as to PMO RALG for supervision and the balance in the MTEF for central MoHSW. Contributions made to the districts from the Health Basket Fund have increased over the past three years, from 0.75 USD per capita in 2007/08, to 1 USD per capita in 2008/09 and 1.25USD per capita in 2009/10. The Environmental Health staff can request money from the Health Basket but the districts do not always prioritise this area when putting forward their requests to the central Ministry.



3) FINDINGS

The key question here is how public finance flows to different segments of the sanitation chain and whether this finance is benefiting the poorer populations living in DSM.

Public financing has been poorly allocated across the value chain.

Public financing is largely concentrated on sewerage and wastewater treatment, as opposed to on-site sanitation. There is little public finance for software activities for on-site sanitation and no public financing allocated to hardware for on-site sanitation solutions. This shows that the bulk of public funding is allocated to sewers (whereas only 10% of the population

is connected to the sewer network) and to wastewater treatment (which benefits a mere 3% of the population). Overall, only 0.9% of public funding on capital investments goes to on-site sanitation services, while these are the sanitation solution for 83% of the population. Wealthier households, who have access to sewerage and treatment services, effectively benefit from 99.1% of public funds invested in sanitation infrastructure. In addition, the GoT and development partners have allocated some funding within WSDP to municipalities to finance software activities for on-site sanitation. However, this funding remains limited and did not come with prescriptive guidelines on how to spend the money until April 2010, when the MoWI released and distributed guidelines countrywide, which is in many cases diverted to finance better access to water. Temeke, Ilala and Kinondoni each received TShs 2 million in 2007/08 and TShs 13 million in 2008/09 to finance sanitation marketing but the way in which these funds have actually been spent was not clear. There have also been operational subsidies of TShs 255 million for software support to on-site sanitation from the municipalities themselves, but this remains very low compared to the amounts spent on capital expenditure for sewerage. This amount has been calculated based on average public expenditures of Temeke municipality scaled up at the entire city.

On-site sanitation services are not functioning adequately at present, which results in substantial costs in terms of public health and the environment. Even though emptying latrines is considered a private matter, the implications of poor sanitation are important on a number of public goods, such as health (through pollution of water sources or general uncleanliness of the environment), road safety and other environmental hazards

Most households lack appropriate financial resources to improve their basic latrines and empty them on a regular basis so that they can deliver ongoing services. This creates a number of problems. A large proportion of the basic latrines are of poor construction. Given the sandy nature of the soil, they are prone to collapsing, which makes them unusable. Given the inadequacy of emptying services, many households either need to move the latrine once it becomes full (something that requires space, which is at a high premium in dense urban settlements), or resort to other means for emptying them. It is estimated that 50% of the population use pit diversion and flooding to empty their latrines (Sugden, unpublished). Due to high water tables in many parts of the city, the latrines are often built above the ground. When the pit is full, a current practice is to wait for the rain and make a hole in the latrine so that the sludge can flood out of it, known as 'vomiting'. Indeed, it appears that one of the greatest problems related to household sanitation is the lack of emptying services (HBS 2007).

Most importantly, unlined latrines can leak and contaminate groundwater resources (especially when water tables are high), which is a particular problem as 17% of the population use water from unprotected sources (HBS, 2007).

Equity

In Tanzania, individuals are considered poor when their consumption is less than the "basic needs poverty line"⁶ (MoFEA, 2009). This indicator is based on the cost of a basket of food and non-food items, but excludes housing, health and education expenses. According to this

⁶ Poverty lines are calculated on consumption per adult equivalent per 28 days.

definition, 16.4% of DSM population lives with less than TShs 14,000 a month per person⁷, which corresponds to TShs 672,000 for a household of four per year. The mean monthly per capita income in DSM is TShs 108,053 (2007 figures, MoFEA), or TShs 5.2 million per household per year, which means that accessing on-site sanitation solutions is actually more expensive than being connected to the network, when those who are likely to have access to sewers live in the more well-off parts of the city. While households who earn an average income spend about 5% on getting a sewer connection, below-poverty line households spend an average of 82% of their yearly income on building a basic latrine and 112% on building an improved latrine, which explains why there are comparatively few improved latrines. Running costs of on-site sanitation facilities are also much higher in terms of proportion of income and can represent up to 15% of a below-poverty line household's yearly income, which is why many households have no other option than flushing the latrine onto the street when the rains come.

RECOMMENDATIONS AND THE WAY FORWARD

1) Although development partners and the GoT have recently committed to increase their focus on sanitation activities, it appears paramount to make more strategic use of limited public funds going forward and to increase implementation capacity.

Activities that appear necessary include:

- ✓ To invest in capacity-building and training activities, in particular to ensure that staff at the local government levels (those who are supposed to support on-site sanitation) are well-equipped in order to organise and supervise the delivery of software support;
- ✓ To provide support and supervision from the centre to develop sanitation activities (at present, many local governments are left to their own devices with the almost impossible task of having to “reinvent the wheel” when deciding how to use funding allocated to sanitation).

2) In order to remediate the sanitation service deficiency, public funding could be better targeted to address the entire spectrum of the value chain so that services alongside the whole chain can be provided effectively. This includes the following segments:

- ✓ *Support for the construction of improved latrines or upgrading of existing latrines*
 - ✓ *Some form of hardware subsidy or facilitated access to financing may be needed in order to encourage the upgrading of existing pit latrines or construction of new latrines.*
- So far, the policy stance has been to provide no hardware subsidies at all, as latrine construction is assumed to be purely a household responsibility. This has been considered good practice internationally based on findings that subsidisation of household latrines does not lead to use or on-going maintenance or replacement. However, such policy has its limits, largely because the costs of building latrines fall disproportionately on poor households, whereas comparatively wealthier households can connect to the sewerage network more cheaply.

3) To overcome such constraint, a series of policy instruments could be used in order to introduce hardware subsidies in the most efficient way possible and leverage private investment:

⁷ “Brief 4: An Analysis of Household Income and Expenditure in Tanzania”, Poverty and Human Development Report, MoFEA (2009)

- ✓ Support the development of revolving funds to leverage limited public funding and encourage community participation and ownership
- ✓ Provide output-based subsidies to entrepreneurs who build and maintain latrines (and potentially enter into a contract with the households to empty the latrines as well). Methods of delivery could include vouchers provided to households which they could use to reduce the costs of building a latrine (service providers would need to redeem such vouchers in order to obtain the subsidy).
- ✓ Provide conditional cash transfers (CCT) to households based on latrine upgrading (if households do not upgrade their latrines and keep them clean, the CCT stop and people can be fined).

4) Support to pit emptying services. Emptying services are rather ineffective and unaffordable. Although they should be the responsibility of municipalities, the service is delegated to private entrepreneurs or tanker companies for lack of financial resources and material within municipalities. Yet, tanker companies have limited capacity in 70% of the city, which is unplanned, and as such require more flexible solutions. Alternative technical options, such as the Gulper (implemented by Tedegro in Temeke municipality with WaterAid support), have so far not been scaled up for lack of business sustainability. At present, the Gulper project is managed by a Community-Based Organisation which appears to be lacking an entrepreneurial drive to expand the market. Public funds could therefore be used to scale up and strengthen sanitation entrepreneurs. This could take the form of seed capital to develop entrepreneurial projects such as the Gulper.

5) The sector regulator, EWURA, should play a more active role than it has done so far and look beyond the performance of DAWASA and DAWASCO in order to protect the interests of all customers, including those who are not currently connected to sewerage services. For example, EWURA is responsible for regulating access prices to DAWASCO's treatment services: this responsibility could be extended so that EWURA would regulate all aspects of the relationships between DAWASCO and pit emptiers, either directly or via institutional relays on the ground (which could be the municipalities, NGOs or CBOs). This could also involve the definition of service areas for pit latrine emptiers, should the market need to be better defined and they would need some form of exclusivity over a given service area

Finally, many other aspects of the effectiveness of public financing could be examined in more detail, including whether funds are adequately disbursed once allocated or whether the financing approach is sustainable and scalable

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