Government of the Republic of Zambia

Ministry of Local Government and Housing

Water Supply and Sanitation Sector

Finance and Resource Flow Assessment

Executive Summary
Water Supply and Sanitation Sector
Finance and Resource Flow Assessment in Zambia

Background

This study on Water Supply and Sanitation (WSS) Sector Finance and Resource Flow has been conducted with a view to examine roles and responsibilities of sector players, the level and adequacy of funding, the relative importance of different sources of funding and the main channels of resource flows. These issues have been assessed under three main headings: (i) institutional mapping; (ii) financial mapping and resource flows; and, (iii) preliminary assessment of monitoring systems. Within this context, the study seeks to provide a better understanding of the level of resources actually flowing to different sub-sectors and service providers, to explore the extent to which the potential of non-public resources is being tapped effectively and how this can be enhanced and, to assess how efficiently and effectively the funds are used at present.

These issues are critical given the low coverage of water and sanitation services. According to the Central Statistical Office, only 49.1 per cent of the Zambian population had access to safe water and 14.9 per cent to proper toilet facilities in 2000. Water and sanitation is critical to human development. There is thus need to increase investments in the Water Supply and Sanitation (WSS) sector to raise coverage. This was recognised in 1994 at the beginning of the water sector reforms. The study sought to assess the state of resource flows in the sector ten years after the initiation of reforms to check whether the anticipated flow of resources actually materialised.

The assessment of these issues leads to recommendations of sector financing strategies to take advantage of existing and emerging opportunities for improved sector finance. It is anticipated that the study will facilitate dialogue on the state of funding in the sector. However, it is should be pointed out that the study is only a start as the information required for a full assessment is at present very scanty. M&E systems including expenditure tracking mechanisms in the WSS sector are poorly developed such that there is need for all players to undertake a larger collaborative effort than has been the case in the context of this study.

Main Findings

Finding 1: Many and uncoordinated players

The organisation of the WSS sector remains complex despite the extensive reorganisation of the sector which was supported by the adoption of sector principles in 1993, a National Water Policy in 1994, and the Water Supply and Sanitation Act in 1997. This would not be of concern had it not been that the WSS sector at times appears to lack clarity and rationality in assignment of roles and responsibilities. Three examples can be given for this.
First is the continuing debate on whether the activities of the Department of Water Affairs are to develop water points and sanitation in rural areas or limited to water resources development. Lack of clarity on this issue has at times made it difficult for some donor agencies to determine whom to deal with. It has also undermined effective lobbying for higher budgetary allocations and disbursements as WSS activities are dispersed across several line ministries.

Second is the lack of clarity on the legal status of the District Water and Sanitation Health Education (D-WASHE) committees. Institutional mapping has clearly demonstrated that D-WASHE committees, adopted as a national concept in 1996, have become the focal point in the delivery of rural water supply and sanitation. Inadequate clarity on the legal status makes these committees at times lack accountability and come in conflict with legally constituted bodies of district administration.

The third is the uncertainty that surrounds some aspects of the relationship between communities, Government, donors/NGOs and service providers in some community based water schemes. For example, there is a big question as to who in reality owns the facilities in these schemes developed at times at great cost with the support of donors or NGOs.

An overall observation which arises from all this is that the WSS sector lacks a strong and well coordinated constituency to push for the water supply and sanitation issues on the country’s development agenda. This was particularly demonstrated during the preparation of the country’s Poverty Reduction Strategy Paper which had a strong participation of actors beyond line ministries. It has been observed that despite the fact that water and sanitation issues rank highly on people’s priorities, representation on these issues was uncoordinated and weak resulting in low funding allocated to the WSS sector compared to other sectors.

**Finding 2: Community Driven Development Initiatives and individual households acting as their own service providers are significant for safe water coverage**

In both rural and peri-urban areas, Community Driven Development (CDD) schemes such as through the Zambia Social Investment Fund (ZAMSIF) have been significant. Based on Table ES1, 55 per cent of Zambia’s population with access to safe water are covered through CDD schemes or individual households acting as own service providers. Commercial utilities account for 38 per cent of safe water delivery and local authorities 7 per cent.

These figures are to be taken with caution because the distribution of coverage between types of water users is taken from different sources of information. It is also unfortunate that there is no information to separate coverage arising from individual households who act as own service providers from that of actual community schemes. However, whatever may be the case, CDD initiatives and individual households appear to be the most important routes for provision of safe water from coverage’s viewpoint. It is crucial that this policy implication is recognized to reach the MDGs on water and sanitation.
The total safe water coverage is in 50 per cent; only 30 per cent in rural areas compared to 86 per cent in urban areas (2000 Census data in Table ES1).

<table>
<thead>
<tr>
<th>Type of Provider</th>
<th>Population Covered</th>
<th>Share of Covered Population (%)</th>
<th>Coverage Rate (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Urban Population</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Commercial Utilities</td>
<td>1,875,101</td>
<td>38</td>
<td>57</td>
</tr>
<tr>
<td>Local Authorities</td>
<td>347,180</td>
<td>7</td>
<td>53</td>
</tr>
<tr>
<td>Urban Community Schemes</td>
<td>806,269</td>
<td>17</td>
<td>-</td>
</tr>
<tr>
<td>Independent Providers</td>
<td>35,588</td>
<td>-</td>
<td>100</td>
</tr>
<tr>
<td><strong>Urban Covered Population</strong></td>
<td>3,064,138</td>
<td>62</td>
<td>86</td>
</tr>
<tr>
<td><strong>Rural Population</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rural Community Schemes</td>
<td>1,866,400</td>
<td>38</td>
<td>30</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>4,930,538</td>
<td>100</td>
<td>50</td>
</tr>
</tbody>
</table>

Source: Table 3

<table>
<thead>
<tr>
<th>Type of Provider</th>
<th>Total</th>
<th>Share of Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rural Community Schemes</td>
<td>13,023,030</td>
<td>19 %</td>
</tr>
<tr>
<td>Urban Community Schemes</td>
<td>6,518,391</td>
<td>9 %</td>
</tr>
<tr>
<td>Local Authorities</td>
<td>3,414,132</td>
<td>5 %</td>
</tr>
<tr>
<td>Commercial Utilities</td>
<td>47,519,729</td>
<td>67 %</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>70,475,282</td>
<td>100 %</td>
</tr>
</tbody>
</table>

Source: Table 4a

There is also great disparity with respect to sanitation. The 2000 Census indicated that only 2.1 per cent of the rural population had access to proper toilets compared to 39.2 per cent in urban areas. These figures give two messages for priority setting: (i) there is need for greater focus (in donor and government spending on rural water supply and sanitation to raise coverage to comparable levels with urban areas - as the study shows, currently, about 15 times more capital money is being spent per (unserved) capita in urban than rural; and, (ii) the profile of sanitation must be raised in the investment priorities of the WSS sector.\(^1\)

**Finding 3: There is little to guide the assessment of the adequacy of funding levels**

This is mostly because information on sector spending is scanty and at times difficult to harmonise. It points to the absence or weak monitoring mechanisms to adequately track WSS

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\(^1\) This study focuses on water, not sanitation, as sanitation requires a different approach. The study refers to sanitation as well however, because at times, it is difficult to isolate spending on water, especially in donor/ D-WASH projects. Only minor sanitation expenditure is captured in the figures though. For a resource flows assessment approach to sanitation, see the Uganda study.
expenditures and outputs. Perhaps the best information available is on the urban water supply and sanitation. This is due to the tracking system put in place by the National Water and Sanitation Council (NWASCO). Even here, it is difficult to separate spending on the peri-urban population from that on the urban population.

NWASCO is also unable to capture WSS spending and service delivery in local authorities systems because of poor data. GRZ spending is easily available from financial reports but there are difficulties in estimating the donor part of the budget. Information on NGO and donor funding tends to be fragmented while there are no mechanisms to capture community and individual households spending.

With these limitations, interpretation of any estimates of the level of spending in the WSS sector put together from a variety of sources should be done with great caution. For 2001, it was estimated that a total of US$70.5 million was spent on water supply and sanitation. It is clear from Table ES2 that commercial utilities accounted for the biggest share of total spending with the least spending by local authorities. The reasons for this are that commercial utilities account for 97 per cent of the internally generated funds which as a source of WSS spending accounted for 37 per cent. Commercial utilities also accounted for 66 per cent of the utilisation of donor funds.

On top of information limitations is the fact that it is not known what could be termed as adequate.

- First, it is not clear what the investments requirements are to raise coverage to acceptable levels. This is made even more difficult by the fact that there is no clear information on the available facilities and their state of repair. Attempts were made in 1994 for the urban water supply and sanitation sub-sector by the Water Supply and Sanitation Development Group (WSSDG) but it is unclear the extent to which this remains relevant. Furthermore, the inventory on water points in rural areas made between 1995 and 1997 is now outdated.

- Second, it is unclear still whether the choice of technology being used is cost effective. There are signs that most technologies chosen tend to be over-designed.

Based on data from 2001, annual water supply and sanitation expenditure is estimated to be about US$70.5 million, equivalent to about 1.9 per cent of Zambia’s. The Zambian water supply and sanitation sector has an almost identical level of expenditure in relation to its GDP to that in nearby South Africa. The sector finance appears high in both countries when compared to the shares of 1.4 per cent of GDP in Uganda and about one of GDP in Ethiopia and Kenya.

A slightly more focused look at spending in the rural WSS sub-sector indicates that a total of US$13 million was spent on in 2001, 58 per cent of which was from donors agencies and 80 per cent of the total went to capital spending. If the 2001 figures are true for other years as well, a question that arises is whether what is required is more funding or merely a better utilisation of the resources already flowing in the sub-sector. How could coverage in rural areas be so low when as much as US$10.5 million is spent on capital developments?
Table ES3: Expenditure by Source of Funding in RWSS, 2001 (US$)

<table>
<thead>
<tr>
<th>Source of Funds</th>
<th>Personnel Cost</th>
<th>Operational Cost</th>
<th>Capital Cost</th>
<th>Other Cost</th>
<th>Total Cost</th>
<th>Share of Total (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>GRZ Grant</td>
<td>158,137</td>
<td>145,168</td>
<td>1,911,510</td>
<td>33,214</td>
<td>2,248,029</td>
<td>17</td>
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<tr>
<td>Matching Grants</td>
<td>178,291</td>
<td>2,793,233</td>
<td>2,971,524</td>
<td>12</td>
<td></td>
<td>23</td>
</tr>
<tr>
<td>NGOs</td>
<td>155,566</td>
<td>424,695</td>
<td>1,008,067</td>
<td>23</td>
<td>1,555,659</td>
<td>12</td>
</tr>
<tr>
<td>Donor Funded</td>
<td>227,458</td>
<td>636,883</td>
<td>3,411,872</td>
<td>50</td>
<td>4,549,162</td>
<td>35</td>
</tr>
<tr>
<td>Community</td>
<td>81,174</td>
<td>207,755</td>
<td>1,368,702</td>
<td>45,925</td>
<td>1,698,656</td>
<td>13</td>
</tr>
<tr>
<td>Contributions</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>622,335</td>
<td>1,592,792</td>
<td>10,493,384</td>
<td>3,520,089</td>
<td>13,023,030</td>
<td>100</td>
</tr>
<tr>
<td>Share in Total (%)</td>
<td>5</td>
<td>12</td>
<td>80</td>
<td>3</td>
<td>100</td>
<td></td>
</tr>
</tbody>
</table>

Sources: Table 4a

The Poverty Reduction Strategy Paper provided US$10 million over a period of three years to construct 3,600 water points in rural areas. This would assume an average cost of US$2,800 per water point. Therefore, the US$10.5 million estimated in 2001 alone was sufficient to provide 3,750 water points in one year. Taking the accepted water point density of 4 water points per thousand, this would cater for an additional 937,000 people and within five years would provide access to safe water for the uncovered 69.5 per cent of the rural population.

There are a number of reasons why this may not be as straight forward. The first is that the estimated average unit cost for a borehole may actually be much higher than that provided in the PRSP considering the type of designs being promoted under some projects. Further some projects choose the more expensive route of developing water points through international contractors which raises the unit cost.

Figure 1: Distribution of Total Expenditure by Type of Expenditure
There are other factors including the lack of coordination between developers which results in some communities receiving too many water points while other communities are neglected and the fact that Zambia being so sparsely populated in most rural areas, issues of water point density cannot so easily be determined from the average number of people but would have to take into account distances to these facilities as well.

Theses points to the need for unit cost and level of service assessments. Setting aside issues of expenditure adequacy for the WSS sector as a whole, the distribution of spending would indicate some hope for improved coverage as much of spending seems be targeted at the rehabilitation and expansion of existing facilities. Of the US$70.5 million estimated in 2001, 84 per cent was equally distributed between capital and operational cost with personnel cost accounting for only 13 per cent. High level of spending on capital (42 per cent) is good to expand coverage, but it also raises the question about (overspending on capital) and deferring of rehabilitation and maintenance outlays.

**Finding 4: There is great potential to significantly raise internally generated funds**

Despite the fact that 42 per cent of total spending in the sector went to cover operational costs, this is inadequate to meet actual needs such that service providers consistently failed to cover the cost for operations and maintenance. Reforms of the water sector anticipated that service providers in urban areas would in the long run cover their O+M costs from internally generated funds as the systems are rehabilitated and improved. Commercialisation of the WSS service through the creation of commercial utilities was meant to facilitate this. Most commercial utilities are still in their inception phase and thus it is too early to make meaningful assessment on the extent to which the principle of full cost recovery can be met. As the situation stands, the cash collected by both commercial utilities and local authorities does not sufficiently cover O+M costs. There was much improvement between 2001 and 2002 for commercial utilities but none was able to attain the 150 per cent O+M coverage set by NWASCO.

**Figure ESI1: Cost coverage in commercial utilities in 2001 and 2002.**
Of the US$25.9 million estimated to have been spent from internally generated funds in 2001, 96.9 per cent of this was collected by commercial utilities. Unable to attract donor support and obtaining little help from the Government, amounting only to US$2.6 million in 2001, local authorities have been having great difficulty in meeting WSS services costs.

Low collections are attributed to: (i) a lack of enforcement of the disconnection policy; (ii) the fact that Government institutions are among the worst defaulters but are the most significant water users in most small towns; (iii) the non-metering of water points and, in other cases, the continued use of a flat rate tariff due to irregular supply making meters unreliable; and, (iv) inefficient collection systems mostly resulting from poor record keeping on debtors.

The result of this is that service providers are skimping on maintenance which in the long run leads to a further deterioration in the WSS infrastructure and a rise in an unaccounted for water. With respect to commercial utilities, for whom there is some data to provide a detailed view, there is considerable room to improve the financial situation. Reducing UfW and improving collection efficiency form the core of prospects for improved expenditure. This is seen from the fact that what was collected in 2001 and 2002 was only 27 per cent of what was actually produced.

If unaccounted for water can be reduced to 30 per cent, which is considered acceptable, and the collection rate is raised to 90 per cent, the benchmark determined by NWASCO, commercial utilities would have generated a total sum of US$38.8 million in 2001 and US$62.7 million in 2002. This would have added an additional US$13.7 million to spending in 2001, or 19.4 per cent of the estimated total WSS expenditure and 54.6 per cent of commercial utilities’ internally generated funds.

It is of course clear that for UWSS service providers to improve their facilities and increase coverage, infusion of public resources from both government and donor agencies is required. However, the potential for non-public resources, particularly internally generated funds, must be fully exploited.

Focus should be on reducing the high UfW and raising collection efficiency. Commercial utilities need to be given incentives to improve performance. This could include linking the provision of donor funds to the achievement of certain benchmarks of performance. Accessing of the Devolution Fund to be operated by NWASCO whose modalities for accessing funds are still being worked out could also be made conditional to a demonstration of effort to improve performance.

**Finding 5: Donors fund a substantial part of the WSS sector expenditure**

The distribution of expenditure for 2001 by source of funds shows that donors account for a substantial part of total spending in the WSS sector, accounting for 44 per cent of total WSS expenditure in 2001 or nearly 70 per cent if internally generated funds are excluded. Between 1998 and 2002, donors disbursed a total of US$163.5 million to the WSS sector. Of concern is the fact that there was a drop in donor funding from US$36.0 million in 1998 to US$29.1 million in 2002.
This appears to confirm suggestions by several actors interviewed that donors were pulling out of the WSS sector to other sectors, principally health and education, on account of the fact that the sector is not well organised in promoting its agenda.

The drop in donor funding was somewhat mitigated by a rise in GRZ and NGO funding. The GRZ spent US$19.1 million between 1998 and 2002 through its budget allocation, rising by over 100 per cent from US$2.8 million to US$5.5 million respectively. Nevertheless, as a share of the total expenditure, there was little movement rising from 0.5 per cent in 1998 to 0.6 per cent in 2001. In this period, budget allocations were tilted to meeting operational costs which accounted for 38.1 per cent compared to 13.4 per cent for emoluments and 17.8 per cent for capital spending. However, HIPC funds which are mostly for capital works allocated to the WSS sector brings capital expenditure to 38.4 per cent. A total of US$9.6 million was disbursed to the WSS sector by NGOs between 1999 and 2002, rising from US$1.1 million to US$3.9 million. The bulk of funding by NGOs is directly disbursed to community based schemes or disbursed through district based institutions or contractors.

Finding 6: The fragmentation of financing channels is undermining strategic thinking with respect to the allocation of resources

Funding organisations have used a variety of channels to fund initiatives in the WSS sector. Donors financing channels are: (i) Ministry of Finance and National Planning where the implementing agency is a sector ministry or one of the matching grant schemes; (ii) Off budget funding to local and international non-governmental organisations; (iii) Direct disbursements to district based institutions, primarily to D-WASHE Committees; and, (iv) Direct disbursements to contractors constructing water and sanitation facilities. The last two channels are also used by NGOs but who also disburse funds directly to communities. Matching grants on the other hand,
particularly the Zambia Social Investment Fund, have developed their own disbursing channels putting emphasis on funding projects directly but with some funding going through local authorities.

This fragmentation of financing channels would not be a big problem if there was a system of capturing information on financing flows. As stated above, expenditure tracking systems are very weak in the WSS sector making it very difficult to have an adequate picture of the funding levels of the sector and the extent to which different aspects of the sector are being funded. This undermines strategic thinking with respect to the allocation of resources and makes it particularly difficult for coordinating organisations and donors to respond meaningfully to the investment needs of the sector.

**Financing Strategies**

The findings above suggest that current financing strategies are inadequate to meet sector investment requirements, and need revising, both to raise funding levels, but foremost, to improve the effectiveness of sector expenditures. Capital expenditures in 2001 (US$29.4 million) were five times lower than the annual average of US$154 million estimated ten years ago by the Water Supply and Sanitation Development Group as the amount needed to upgrade and rehabilitate water and sanitation systems. To close the financing gap within the sector, it is important to revise investment requirements to more realistic levels by re-examining the design assumptions and technologies envisaged for urban and rural water and sanitation facilities.

**Adopting a holistic and comprehensive approach to resolve issues confronting the water and sanitation sector.** The Ministry of Local Government and Housing is exploring the adoption of a Sector Wide Approach (SWAp) to the water and sanitation sector as a means to tackle the fragmented and uncoordinated support the sector currently receives. A SWAp would provide an organising framework for developing and agreeing financing strategies for the water and sanitation sector, but this study cautions that rigorous preparation is required. For a SWAp to work, government leadership is needed and donors must be willing to look beyond project-based aid. The adoption of a SWAp would help to: create a strong constituency advocating for increased funding of the water and sanitation sector; improve coordination and monitoring of sector resources; and help the adoption of policies that favour the financial viability and output targeting of the sector. This study suggests five key messages for improved financing strategies, all of which are also necessary to make a SWAp work:

1. **Clarify the assignment of roles and responsibilities in the water and sanitation sector.** This should be the first step, because it will also help to clarify the funding of activities to raise coverage and improve service delivery in the water and sanitation sector. In particular, there is need for clarity on the respective roles of the Ministry of Local Government and Housing and the Department of Water Affairs in the Ministry of Energy and Water Affairs.
2. **Strengthen the status of district level institutions.** Because they are closer to service users, local authorities are more likely to reflect the needs of stakeholders in their development priorities. A move towards democratic decentralisation with strengthened capacities of local authorities is in the interest of the water and sanitation sector. Additionally, the D-WASHE committees that have become the focal point in the development of RWSS should be funded on a sustainable basis and have their legal status clarified.

3. **Utilise the full potential of non-public resources.** Public resources are essential to rehabilitate and expand the capacity of water and sanitation infrastructure. However, particularly in the UWSS, there is much potential to increase internal generation of finance by putting in place more efficient billing and collection systems, reducing non-revenue water, and metering water points. Incentives for improved performance in commercial utilities must be urgently considered. With an improved track record based on sound financial practices and strong commercial orientation, commercial utilities can explore new financing opportunities such as commercial borrowing.

4. **Improve information and M&E systems, especially with regard to investment and financial information.** These are necessary if the sector is to continually assess not only the adequacy of funds but also the efficiency and effectiveness with which expenditures are being utilised. At the moment Information and M&E systems are weak, and would benefit from a goal oriented strategic plan for the sector.

5. **Adopt a water supply financing strategy and investment plan (process).** As part of a holistic and comprehensive response to sector issues, there is a need for a water supply investment plan. This could be prepared within the framework of a Sector Wide Approach, or outside a SWAp, as long as there is some consensus from the main actors on the need to coordinate investment activities in the sector. In adopting the plan, water and sanitation sector players should agree on a number of key parameters, including the size of the additional population to be covered. This presupposes consensus on the current rate of coverage for safe water and adequate sanitation facilities. An improved baseline survey of water facilities in urban, peri-urban and rural areas would provide information on rehabilitation and construction needs. As pointed out earlier, current information is outdated and needs updating. Stakeholders should also agree on suitable technologies for each population group and, therefore, on the range of unit costs to be expected. The process of developing an investment plan should be at the centre of policy dialogue.
WSP MISSION
To help the poor gain sustained access to improved water and sanitation services.

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