Ethiopia Water Supply Sector Resource Flows Assessment

Executive Summary
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Significant gaps in the financial flows to the water sector exist in Ethiopia; and the gap will most likely increase in the future. At present levels of financial flows, the sector will not be able to meet targets set by either the government in their National Water Sector Development plan (NWSDP) or their pledge to attain the Millennium Development goals. According to investment scenarios, the resource gap in rural areas is smaller than in urban areas, but is expected to increase as expanded coverage is attempted.

Clearly more resources are needed from the government and donor partners. However, it is also essential to take into account other interventions beyond simply ‘more financial resources’, particularly in the context of decentralization and the persistent lack of capacity for implementing sector policy at regional and district level. Main focus will need to be on transition arrangements in implementing institutional reforms at the regional and woreda levels. Other supporting interventions include: adapting service levels to cost recovery potential and ensuring cost-effectiveness, incentives for improved cost recovery by service providers, better coordination of off-budget resources at local levels and development of an appropriate sector information and monitoring and evaluation system. The issue of good and relevant sector information is critical as evident throughout this assessment. A key issue also relates to building local capacities across stakeholders to absorb additional resources effectively.

A. Key findings and their Sector and Policy Implications

The water sector is characterized by complex institutional arrangements, and a variety of channels and sources of funds are used to finance the sector. The study framework in this report responds to the special characteristics of the water and sanitation sector, and includes two tools: institutional and financial mapping (with particular emphasis on public funds as they are the dominant source in the sector). The institutional mapping exercise captures the governance structure of the sector and relates the importance of governance to efficient and effective channeling of funds, and implementation in the sector.

The financial mapping exercise expands the analysis to capture all sector sources, channels and uses of funds. The report concludes with an assessment of the adequacy of current funding flows in the sector and an analysis of the requirements to increase the sustainability of sector development. Key findings and implications for the sector policy and strategy include:

The unserved in the water sector live in rural areas. Despite more investments in rural areas in recent years, 97 percent of the unserved population in the country resides in these. This amounts to an unserved rural population of over 45 million. It needs to be highlighted, however, that issues of unreliable and unsustainable services apply to both urban and rural services.
The urgency to address the low rural coverage is recognized at policy level in Ethiopia, but needs to be addressed at implementation and on the ground. Resources need to reach communities through appropriate mechanisms for financing and capacity building. Incentives need to be provided for the use of cost effective technology options across regions as technology choice has considerable impact on investment and operations and maintenance costs as well as long-term sustainability.

**Transition issues in sector governance need to be addressed.** Overall, the water sector in Ethiopia is characterized by a relatively clear policy and definition of institutional roles. Rapid decentralization to the Woreda (district) level has resulted in a deficit in the capacity to implement the changes suggested by the national policy and strategy. Within the decentralized sector arrangements, the federal government is in charge of policy and strategy development through the Ministry of Water Resources, and the regional and Woreda governments are responsible for ensuring provision of services through delegation to water service providers. Addis Ababa water and Sewerage Authority provides services in the capital city. The policy implies the emergence of autonomous service providers in other large cities, urban water services in smaller towns, and village water service committees in rural areas. This is the long term vision of the sector and efforts are needed to support the transition to these new arrangements.

Greater focus is however needed on ensure building and strengthening capacity of different entities. Especially critical are the legal basis and necessary powers of service providers and regulation and monitoring by decentralized government bodies. Monitoring should be undertaken by Woreda water desks and town water boards but facilitated by the existing Regional Water Bureaus. The government needs to develop good comparative performance information to accelerate reform and provide incentives for improved performance.

There is a need to strengthen capacity at regional and Woreda levels where most of the responsibilities for organizing the provision of services have been devolved. Currently, as per the new policy, regional government offices are handling water development and are responsible for planning, formulate policies and regulation with investment planning, monitoring, and technical support. Woredas need to increase capacity to manage their responsibility for technical support to rural and urban water suppliers. The emerging regions and their Woredas will likely need more support from the Ministry of Water Resources and Ministry of Capacity Building until they
develop sufficient capacity to plan, prioritize, implement, and monitor their own investment programs. While scaling up capacity building efforts, it is important to engage the private sector and NGOs along with government bodies.

**Figure 2: Emerging Financial Arrangements - Main Financing Channels**

<table>
<thead>
<tr>
<th>Government Budgets</th>
<th>Special Funds</th>
<th>Direct Mobilization by WSPs</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Federal Budget</td>
<td>Ministry of Water Resources</td>
<td>5. WRDF</td>
</tr>
<tr>
<td>2. Regional Budget</td>
<td>Regional Water Bureau</td>
<td>4. ESRDF</td>
</tr>
<tr>
<td>Regional Government</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Addis Ababa City Gov.</td>
<td>AA Water &amp; Sewerage Authority</td>
<td></td>
</tr>
<tr>
<td>Municipality</td>
<td>Urban Water Supply Service</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Woreda Water Desk</td>
<td></td>
</tr>
<tr>
<td>Woreda Gov.</td>
<td>Village Water &amp; Sanitation Committee</td>
<td></td>
</tr>
<tr>
<td>Woredas</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Villages</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Woredas</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Regions</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cities &amp; Towns</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Small Towns</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Woredas</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

One significant institutional and financial change affecting the sector is the phasing out of the Ethiopian Social Rehabilitation and Development Fund (ESRDF) and the increasing role of the Water Resources Development Fund (WRDF). Set up in 1992, the ESRDF was the major source of financing for community-based rural water supply with an annual investment of about US$ 10.0 million until 2001. The closing of ESRDF will have large implications for financing of rural water supply, and mechanisms will need to be put in place to ensure continued funding for rural areas. The newly WRDF will increasingly play a role in the financing of the sector, but for urban sub-sector. Its focus on sustainable credit-based finance may suggest the need to have an appropriate mix of grants and loans for small towns, or use the stepped approach planned under the new World Bank Project.

Current intra-governmental transfers are not related to performance, but rather rely upon a block transfer formula. It would be useful to explore the possibility of linking the federal and regional transfers to performance (the ability to raise and utilize budgets and outcomes) as well as need, as
per current practice. Incentives are needed to attract extra-budget or non-public financial resources at regional and Woreda level. However, to maintain the equity principles implied in current transfer systems, compensation to regions, which have lower economic capacities, will still be needed. It would be useful to draw on lessons from other countries such as South Africa and Uganda, which are also in the process of designing inter governmental transfer systems in response to similar issues.

**Non-public funds are important.** Table 1 provides estimates of channels of finance used sector expenditure and by different service providers to meet their expenditures. The total WSS expenditure is estimated to be 631 million Ethiopian Birr ($78 million) in 2000-01, declining to 558 million Ethiopia Birr ($68 million) in 2001-02. Separate estimates at woreda level were not available. Off-budget NGO funding, on-budget donor funding and internal generation contribute to a substantial amount of total expenditure in the sector.

In fiscal year 2001/02, off-budget NGO funding amounted to 18.9% of total sector expenditure and 33% of development/ capital expenditure. It becomes therefore necessary for improved coordination of donors and NGO resources to ensure continued alignment with sector policy and strategy. Internal generation and user charges are also significant, but only for recurrent expenditure and mainly in urban areas. Little is charged explicitly for development expenditure (see table below) though information constraints make accurate community level development expenditure estimation difficult, and so the community inputs are probably underestimated.

<table>
<thead>
<tr>
<th>Channels of Finance</th>
<th>Recurrent (% of total)</th>
<th>Development (% of total)</th>
<th>Total (% of total)</th>
<th>Expenditure (million birr)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Federal Budget</td>
<td>4.9</td>
<td>9.3</td>
<td>7.4</td>
<td>41.3</td>
</tr>
<tr>
<td>Regional Budget</td>
<td>30.8</td>
<td>55.4</td>
<td>44.9</td>
<td>250.7</td>
</tr>
<tr>
<td>Ethiopia Social and Rehabilitation Development Fund (ESRDF)</td>
<td>0.0</td>
<td>2.0</td>
<td>1.2</td>
<td>6.5</td>
</tr>
<tr>
<td>NGOs/ Off-budget</td>
<td>0.0</td>
<td>33.0</td>
<td>18.9</td>
<td>105.5</td>
</tr>
<tr>
<td>Internal Generation through User Charges</td>
<td>64.3</td>
<td>0.0</td>
<td>27.5</td>
<td>153.5</td>
</tr>
<tr>
<td>Communities/ Households - capital contribution</td>
<td>na</td>
<td>0.2</td>
<td>0.1</td>
<td>0.8</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
<td>558.4</td>
</tr>
<tr>
<td><strong>Total Expenditure (in million birr)</strong></td>
<td>238.7</td>
<td>319.7</td>
<td>558.4</td>
<td>-</td>
</tr>
<tr>
<td><strong>Total Expenditure (in million US dollars)</strong></td>
<td>29.1</td>
<td>39.0</td>
<td>68</td>
<td>-</td>
</tr>
</tbody>
</table>

Source: Based on table 3.1 and 3.2. Details in annex 2.
Critical sector resource gaps exist. Total sector expenditure in Ethiopia seems to be low. On average, the sector spending corresponds to about 1.2 percent of GDP (US$ 68 million in fiscal year 2001-02). Available analysis of resources requirements suggests significant resource gaps making it difficult to attain the government and / or MDG targets for water.

Sector expenditure in Ethiopia is indeed low compared to levels in other countries in the region (table 2): for instance Ethiopia and Zambia have similar sector finance envelopes despite the considerably larger population of Ethiopia. The effect of this is to reduce the per capita spending in Ethiopia to one sixth of that in Zambia. The lower per capita spending in Ethiopia is exacerbated by the lower coverage rates, as compared to Zambia. Effectively, then the amount of finance per unserved person in Zambia is more than 6 times that of the spending per capita in Ethiopia, as there is a larger proportion of unserved in a larger national population. The table below shows the relative urban and rural coverage in three Africa countries, together with the level of capital expenditure in each. The level of capital spending in Ethiopia is below both Kenya and Zambia when adjusted per capita.

**Table 2: Coverage and Capital Expenditure in Three African Countries**

<table>
<thead>
<tr>
<th>Country</th>
<th>Population (millions)</th>
<th>Coverage (%)</th>
<th>Development Expenditure (million US$)</th>
<th>Per capita Dev. Expenditure (US$)</th>
<th>Sector Expenditure as a share of GDP (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Total Population</td>
<td>Uncovered Population</td>
</tr>
<tr>
<td>Ethiopia</td>
<td>63.4</td>
<td>28</td>
<td>40</td>
<td>0.63</td>
<td>0.88</td>
</tr>
<tr>
<td>Kenya</td>
<td>28.8</td>
<td>64</td>
<td>44</td>
<td>1.13</td>
<td>3.13</td>
</tr>
<tr>
<td>Zambia</td>
<td>10.3</td>
<td>64</td>
<td>31</td>
<td>3.01</td>
<td>8.36</td>
</tr>
</tbody>
</table>

B. Addressing the Water Sector Financing Challenge

Increasing the resource envelope to close the resources gap

Several opportunities can be pursued:

- **Increased cost recovery.** To capture larger amounts of finance through user payments—both through user charges as well as community contributions to capital costs. At present only two-thirds of the recurrent expenditure is met through this source. Further studies of level of tariffs and cost recovery are necessary and appropriate incentives and monitoring are needed to capture this potential in reality. For example, subsidy ceilings to ensure that only basic levels of service are subsidized, as included in the new World Bank project, should be utilized across the sector to allow for a more distributed benefit of limited public and donor funding.

- **Increased internal generation through efficiency improvements.** Detailed inquiries with selected urban and rural providers suggest that some of them are in fact generating marginal surplus on operating account. However, to enhance this further through efficiency improvements ongoing capacity building support in business planning, and for improved billing efficiency and minimizing unaccounted for water due to technical losses. Possibility of performance-based management contracts can also be explored for this.

- **Increased WSS allocations at each level of government.** Available budget allocation information at the federal and regional level suggests that water receives relatively low priority in these budgets. This is of particular concern at the regional and woreda levels where the main mandate for water services resides. While local priorities need to be respected in context of decentralization, two opportunities need to be explored: linking the intergovernmental transfers to performance and sector targets as appropriate and advocacy for WSS allocations backed by capacity building support to regional ands woreda governments.

- **Increased on-budget donor resources.** Share of donor resources in total public sector investment resources for water has so far been low—at about 56 million birr in 2001-02 or 26 percent of total public capital expenditure. With the recent approval of a major Bank project for this sector, there is likely to be a greater interest also from other key donors in this sector. This needs to be positioned within the donor emphasis on MDGs and on Africa as evident, for example, from the recent European Union Water Initiative. For this, incorporation of water in Ethiopia’s own poverty reduction strategy paper (PRSP) needs to be improved through annual progress reports.

- **In the medium to long term, leveraging new resources by enabling access to ‘market-based’ funds.** To achieve significant additions to sector resources in the future, it will be important to develop measures to support market access for the urban and rural water service providers. For urban utilities, this may be through WRDF. This would require commercial orientation to limit non-performing assets to enable it to overtime mobilize market-based resources. The possibility of raising investment funds for VWSCs given the development of micro-finance institutions in some regions needs to be explored and supported through measures such as partial guarantees and other credit enhancements, support in project development and benchmarking and rating facility for measuring VWSC performance. These measures are necessary, but they cannot replace capacity building and efficiency enhancement, and will need to be developed in tandem.
Improving sustainability of Investments

It is essential to ensure that new investments are sustainable and do not quickly result in further rehabilitation requirements. Decapitalization of investments in the sector is common both in rural and urban areas. For rural areas, studies done during the last five years and reported earlier indicated that a large proportion (ranging from a third to a half) of water schemes are not functional. Measures to improve sustainability of rural water include improved planning and capacity building support.

For urban areas, the problems are related to poor financial viability, and technical and managerial capacities, and the measures include both ‘correct’ incentives and demand-based support for capacity building. In both cases, opportunities for private sector participation to enhance efficiency need to be explored. Particular emphasis is needed on the possible role of small scale and local private sector for a variety of support services such as: professional support to operators of town systems and to rural communities for maintenance and provision of spare parts.

Improving sub-sector allocation and expenditure effectiveness by better aligning financing rules with WSS policy and priorities

Significant resource gaps exist in the sector; demand for capital investments outweighs supply by about five times according to the available estimates. It is therefore critical that while developing a detailed financing strategy, rules for allocation of and access to public finance will need to be developed in response to sector priorities. The PRSP, for instance, stresses the need for a greater focus on rural water supply and on urban poor. Pastoral communities also need specific attention. The MWR will need to explore different priority scenarios within possible resource envelopes for the water supply sector.

Such scenario assessments would need to include aspects such as: priorities across different sub-sectors, appropriate technology choices and service level and financing/cost recovery rules. While developing these scenarios, it is also necessary to include adequate provision for project development/management costs, including the ‘software’ costs of social mobilization and community support.

Based on the analysis in this report, some allocation principles that need to be considered are:

- Level of capital subsidies for rural and small town water systems: need to combine the current system of a minimum community share in capital costs (generally 10 percent) with a ceiling on per capita subsidy linked to the notion of basic service levels. Such a principle has already been introduced in the recent World Bank project, but needs to be uniformly applied regardless of the sources of funding. To some extent similar (though lower) subsidies may also be relevant for the rural and small towns with less than 10000 population, particularly to support initial rehabilitation and expansion that would support improved cost recovery and help generate cash surpluses. Use of this financing principle would also provide an incentive to choose cost effective technology and demand linked service levels. Due to the significant financial implications it is critical that the value
for money is maximized through use of cost-effective technology. Appropriate service levels would enhance level of cost recovery.

- **Nature of support for urban water**: need to reconsider the large capital subsidies to urban water suppliers and move to target subsidy towards two purposes: a) to enhance access for the urban poor to improved services, and b) sustainable measures to enhance financial/ commercial viability of urban water service providers (UWSSs). The World Bank project has incorporated this aspect through a stepwise approach that first provides rehabilitation and capacity building support.

- **Share of management support in project costs and sector development allocations**: needs to make adequate provision upfront in order to address the constraint of poor planning and implementation, especially in rural WSS projects. This would cover in particular costs of community preparation for preparation of projects including planning, formation of management committees and developing systems of accountability. To address the overall sector capacity constraints, an appropriate share of total WSS investments is needed for capacity building, sector information and ME systems and development of supply chains.

### C. Potential Action Areas for Future WSP-Africa Support

Based on the findings in this assessment, actions for the way forward are identified in three areas:

**Developing a comprehensive financing strategy through multi-stakeholder dialogue**

A lot of work has been done on developing estimated of investment requirements (WSDP, the master plan, and PER) in Ethiopia. Such analysis, however, needs to be dynamic and open to revision in annual review processes. The focus needs to be on assisting decision-makers in reviewing various investments and financing scenarios within the feasible resource envelopes. WSP-AF’s ongoing work on development of a sector-wide investment and finance tool (SWIFT) may provide useful support to the MWR. The application of SWIFT would aim at making the existing investment work more dynamic and open to changing policy conditions on a rolling annual basis. It will also help outline/articulate different financing principles and their implications. Such strategies would be equally relevant at the regional level.

**Filling the critical information gaps in resource flows analysis**

This assessment highlights the paucity of available information for sector finance. Compared to public expenditure in the water sector, however, information was even more difficult and at times simply non-existent for many non-public sources and for sanitation. Three important gaps, particularly in terms of their potential importance, deserve further action: i) better assessment of off-budget finance through the NGOs, ii) a more complete and robust assessment of user financing including both as paid to urban ‘utilities’ and the VWSCs as well as expenditure for self-supply or on coping costs to deal with inadequate and/or unreliable services, and iii) a separate assessment of finance for sanitation and hygiene promotion. WSP-AF’s ongoing work in the
region focuses on these constraints faced in many countries. Further inquiries could form a part of these efforts based on further discussions in Ethiopia.

**Sector wide Assessment of the Information and M&E System**

On the whole, the water sector information and M&E system(s) in Ethiopia needs to be considerably strengthened to effectively support the linkages between sector objectives and allocation of public funds. Though there are many initiatives (PRSP monitoring, budget tracking at the ministry of finance, water point mapping and regional MIS projects and periodic reviews), these are fragmented and isolated, and are often project-based. Within the context of moving towards sector programs, current work of WSP-AF focuses on developing a better understanding and good practice documentation of WSS sector information and performance monitoring systems in different countries in the region. A preliminary documentation of current and planned information and M&E systems in Ethiopia would contribute to the regional work and could be useful for providing a situation analysis and identifying the challenges that decentralization presents for monitoring the water and sanitation sector in Ethiopia.
WSP MISSION
To help the poor gain sustained access to improved water and sanitation services.

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About The Sector Finance and Resource Flows Series
The Sector Finance and Resource Flows reports are based on country studies on water and sanitation sector financing in Africa. The aim is to provide assistance to sector leaders, policy makers and development partners to help African countries meet the Millennium Development Goals on water and sanitation through: rationalizing allocation of public funds, leveraging non-public resources and improving targeting of required subsidies.

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