

## **Title:** Experiences with Innovative Financing: Small Town Water Supply and Sanitation Service Delivery

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### **1. Introduction**

Small towns vary widely, both in terms of economic base and water service delivery models. Moreover, what constitutes a small town in one part of the world may be deemed to be something else somewhere else. For example, what might be regarded as small towns in India and China might be considered to be small cities in Africa. This paper specifically deals with financing mechanisms for towns with populations between 2,000 and 50,000 people. Such towns represent a significant proportion of the population to be reached if the MDGs are to be met. This is exemplified in Africa and Asia where a third of their populations live in either large or small towns,<sup>2</sup> and where for every large town (of 50,000 to 200,000) there are ten smaller ones (population 2,000-50,000). At a very basic level, population projections suggest that these areas' populations will likely double within 15-years, and then again in 30 years.<sup>3</sup>

Small towns tend to be located on the border between urban/rural or peri-urban/urban, and can serve a variety of purposes. They can become market centers for rural areas a few days a week, placing pressure on basic infrastructure for short periods of time; or they can be growing areas in their own right, due to immigration of permanent settlers. In either case, the need for piped water, appropriate sanitation and drainage to support commercial and industrial growth, as well as meet residential demands, is present, and often not met. Water and sanitation service provision in small towns tends toward a combination of public-private utilities and small-scale domestic providers that serve their customers through a variety of technologies: piped water, standpipes, hand pumps and or vendors/tankers. Because of their dynamics, planning for and managing basic water services, and including wastewater drainage, can be a considerable challenge.

In this environment, traditional sources of external finance (ODA grants and concessional sovereign loans) are often inadequate, even as they are often the only type of finance available. Small towns lack the scale of larger urban utilities, a feature which attracts both public and sometimes private investment (national and international); yet they are often too large to benefit from the community-based and micro-finance mechanisms that are often applied with success in rural areas. Given their scope, there are potentially significant economic development and poverty reduction impacts to be gained through sustainable access to safe water, sanitation programs, and effective drainage in these areas. Thus, financing water supply and sanitation services in small towns demands creative thinking.

Small towns require capital investments for piped networks, which, if designed to meet demand growth projections, are unaffordable. By contrast, because of their existing characteristics and constraints in accessing finance, small-scale entrepreneurs provide limited services. Consumers in these areas are perceived (wrongly) as having low willingness and ability to pay, although they pay sometimes 20 times more per m<sup>3</sup> to informal vendors than those served with piped water. The large lump sums and other red tape required for having a legal connection perpetuate the situation.<sup>4</sup> Others, unable to spend so much for water, revert to unsafe water supplies, increasing the risk of cholera and other outbreaks of water-borne

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<sup>2</sup> World Bank Town Water Report, 2005.

<sup>3</sup> Pilgrim et al., 2004.

<sup>4</sup> Franceys, 2005

disease. For example, during 2004, of the 30 outbreaks confirmed as cholera, 25 occurred in Africa including major outbreaks in Cameroon, Chad, Guinea, Mali, Niger, Senegal and Zambia.<sup>5</sup>

This paper reviews some of the creative ideas that have emerged to address the financial constraints to small town water and sanitation service delivery. The paper emphasizes domestic sources of finance for both hardware and software investments. These ideas involve a range of different stakeholders, including users, informal providers, utilities, governments, NGOs, domestic banks, and donors. The structure of the paper is as follows:

- **Section 2** presents an overview of current financing trends and the implication of traditional and innovative sources of finance for small towns;
- **Section 3** appraises some of the constraints to finance, especially related to small towns; and
- **Section 4** provides examples from small towns in different regions, to illustrate how innovative finance can be used and applied;
- **Section 5** builds on the findings from the previous sections to present preliminary findings. It should be noted that while there are many examples where innovative mechanisms have been used, substantial research that consolidates the range of experience is unavailable, leaving many questions unanswered. Hence, this section also presents suggested topics for further research.

The paper concludes with a **Glossary** of finance/water sector terms and **References** for further reading.

## 2. Finance trends and innovative financing (the supply side)

### 2.1 From the Camdessus report to innovative financing

Over the past few years, several studies and processes<sup>6</sup> have been conducted at different levels to quantify the financing gap for water sector investments needed to achieve international development targets. While there does not seem to be an agreement on the financial gap (between 2000-2004, nine key agencies produced different estimates with different assumptions<sup>7</sup>), there is agreement on the key constraints for water sector financing to be more effective. Box 1 provides an overview.

#### Box 1

##### Findings from the World Panel on Financing Water Infrastructure (Camdessus report)

In 2003, the Camdessus report outlined the following conclusions about water sector finance:

- That the financial flows to the water sector are inadequate to achieve the MDG target of halving the proportion of people lacking safe water and sanitation;
- That government policies for the water sector should be decentralised to the lowest appropriate level, while decentralised sector institutions require substantial amounts of capacity to improve sector planning and management;
- That sustainable cost recovery principles need to improve, both in terms of increasing service providers' revenue generation, and in terms of institutional blockages to financial transfers (e.g. from governments and donors);
- That NGOs and local private sector operators have a strong role to play in developing the sector;
- That a reformed sector with improved institutional structures and governance will attract additional ODA as well as private capital; and
- That sovereign risk poses a strong disincentive for international investments, given their low returns.

The report offers a range of proposals to move forward; these can be categorized as follows:

- *Sovereign-level reforms*, such that each country has a national water policy incorporating milestones to achieve the MDGs;
- *Sub-sovereign level reforms*, such that municipalities and water authorities gain greater responsibility, and capacity, to implement water policies and frameworks; and

<sup>5</sup> WHO, 2005

<sup>6</sup> Including the World Panel on Water Infrastructure Finance, the EU Water Initiative Finance Working Group, and the UN Millennium Task Force on Water Supply and Sanitation.

<sup>7</sup> Fonseca and Cardone, 2004

- *Local capital market development*, such that local financing, from the public and private sectors can be used to support appropriate water and sanitation interventions.

Source: Winpenny, 2003.

Since the launch of the Camdessus report at the Third World Water Forum in Kyoto (2003), a range of trends in financing have emerged:

- Greater attention has been paid to the role local capital markets can play in emerging and developing countries where governance frameworks are capable of supporting them. In countries lacking strong governance frameworks, initiatives and programs to address these weaknesses are underway. For example, the International Finance Corporation's (IFC) Municipal Fund<sup>8</sup> provides capital investments to municipalities and other sub-sovereign entities, without requiring a guarantee from the central government. The objective for this approach is to strengthen the ability to deliver infrastructure services at a sub-sovereign level. The project complements IFC's other project development facilities, which also provide technical assistance to small-scale enterprise, domestic banking institutions, and governing bodies at both sovereign and sub-sovereign levels.
- A number of programs and initiatives are focusing on the possibilities for more domestic-based financing options, including small-scale private service providers for water supply and sanitation; scaling up micro-finance initiatives to support water and sanitation schemes; and developing and implementing schemes that use grant financing in creative ways to generate sustainable, positive outcomes. For example, in 2005, DFID announced 20 GBP (US\$36) million in funding to the Water and Sanitation Program for a Domestic Private Sector Participation Initiative (DPSP),<sup>9</sup> to address the untapped potential, in management, operations, and finance, of the domestic private sector for the benefit of water and sanitation services in poor countries. This amounts to 12 GBP (US\$21.6) million to Sub-Saharan Africa, and 8 GBP (US\$14.4) million for Asia.
- There is increased support for financing and project development facilities to stimulate a project pipeline and address different types of risk for public and private infrastructure investment. These facilities aim to strengthen project development and due diligence skills within a country, as well as design new approaches to use grants, debt, equity, and guarantees in meaningful ways. For example, USAID's Development Credit Authority provides the agency's missions in developing countries the authority to issue credit guarantees to private lenders, covering up to 50% of the risk, most often for local currency loans.<sup>10</sup> The objective is to develop bankable projects and projects that risk-share between the private and public sectors, whether for large scale or small-scale projects. USAID also provides capacity building to help banks perform credit risk assessment, cash flow analysis, due diligence, and risk management on loans.
- There is also new thinking at an international level about the role of the private sector, moving beyond the concession model that was prevalent in the late 1990s. Possible roles for industry and commercial businesses, whether in the form of business development support to domestic-based entrepreneurs, or creative thinking about water and wastewater use – are being considered. Likewise, linkages between water supply and sanitation and water resources management in relation to the private sector are also being explored by organizations including the World Business Council for Sustainable Development and the World Economic Forum, through their respective Water Initiatives.

<sup>8</sup> <http://www.ifc.org/municipalfund>

<sup>9</sup> BNWP, 2005

<sup>10</sup> <http://www.state.gov/g/oes/rls/fs/2003/18918.htm>; <http://www.unep.org/GC/GCSS-VIII/USA-Sanitation-2.pdf>

## 2.2 ODA: The sun does not shine for all

The water sector tends to be funded through government budgets, development agencies (bilateral, multilateral, and NGOs), domestic based private operators, and, to a very limited extent, the international private sector.<sup>11</sup> Governments tend to provide the majority of funding in developing countries, although the bulk of their funding, in turn, is provided by donor agencies. Donors and other development agencies (such as international and national NGOs) also provide dedicated funding to specific water and/or sanitation projects, although there are no records to track how much NGOs invest in the sector.

In terms of the nature of funding, donors tend to fund capital investments, through grants or sovereign loans to specific projects, while governments provide funding through line ministries (or, in some instances, directly to utilities) for urban and rural programs. Historically, urban areas recovered some of their costs through user fees, with governments providing the balance; rural areas typically received water services from donors, NGOs, or through government programs, with minimal expectations for cost recovery from users.

Although the quantity of funding for water sector investments varies by countries and regions, one thing is clear: it is insufficient nearly everywhere to meet the MDGs. Between 2000 and 2002, many studies<sup>12</sup> looked at this gap at a global level, largely for advocacy purposes, estimating a range of US\$7.5 to US\$70 million additional dollars annually. In addition to quantifying this global finance gap, a few studies have also looked at trends in donor flows. One such study, conducted by the OECD in 2004, showed that at a global level, financial flows have been on the decline since the late 1990s. Between 1999-2001, commitments by donors reflected their lowest point since 1985 (in real terms). Other findings are highlighted in Box 2.

### Box 2

#### Key findings from OECD study on Aid for Water Supply and Sanitation

- In addition to the overall decline in aid flows to the water sector since the late 1990s, there has been a shift in the types of ODA provided – while 100% grant funding has remained static, concessional loan finance has increased. The average grant element of these loans is 70%.
- Disaggregating the global picture of finance to a country level, for 2001-2002, roughly half of total bilateral and multilateral commitments to the water sector were allocated to ten countries.
- Notably, the analysis also showed that many countries that are not on track to achieve the MDGs for water supply and sanitation do not benefit greatly from ODA: only 16% of total ODA allocated for the water sector went to countries where less than 60% of the population lacks access to improved water services.
- Looking at a regional level, between 1997-98 and 2000-2002, the percentage of ODA allocated to Africa declined to 27% of global funds. In Sub-Saharan Africa, 45% of that ODA was allocated for large-scale water projects, while 27% was allocated to small-scale systems.

Source: OECD DAC, 2004

At first glance, these trends in the water sector suggest that the real opportunity to achieve the MDGs for water supply and sanitation is lost. With disbursements lagging eight years after commitments, and with commitments on the decline, actual funding from donors to sovereign governments will be reduced. That 1 billion people still lack access to safe water supply and 2.6 billion lack access to basic sanitation suggests that this 'business as usual' picture needs to be improved.

<sup>11</sup> Data from 1990-2002 shows that the international private sector contributes just 5% of total flows to the sector, and this percentage is largely based on a few concessions in Latin America. World Bank Private Participation in Infrastructure Database.

<sup>12</sup> Fonseca and Cardone, 2004

### 2.3 Looking beyond traditional financing flows

There is not enough ODA, and even if there were, focusing on water and sanitation infrastructure or governance issues will not likely change the core problems facing the sector. More specifically, as seen in Box 2 above, donors tend to focus on specific countries while others lag in progress to achieve the MDGs.

Considering central government funding flows, prioritization by central governments for water and sanitation remains weak throughout the Poverty Reduction Strategy (PRSP) process in most countries, and, where water has been prioritised, budget allocations have been insufficient.<sup>13</sup> Further, the lack of coherent policy planning and financing frameworks, along with systems for accountability and transparency at a government as well as sectoral level hinders more market-based sources of finance. Central governments must balance competing priorities, such as health and education, which tend to be more streamlined, while the water sector by comparison is often characterised by multiple – and often competing – institutional arrangements, and weak regulatory structures. Still, budgeting allocations at a central level are often based on political decisions rather than on an evaluation of need, or on demonstration of performance.

This financial picture can be considered an opportunity to do things differently, and many organizations have taken on that challenge. Issues of how funds are spent rather than quantifications of ODA volumes are perhaps more important. In particular, the potential for ODA to leverage non-ODA forms of finance to support the sector are considered particularly important to achieve national and international development targets. More tailored solutions that can complement and strengthen the traditional 'top down' finance flows, are needed to stimulate responsibility and sustainability of water services at a local level.

The concept of 'innovative finance' has thus emerged to consider alternatives, both in terms of expanding the notion of *who* can provide finance as well as *how* finance can be supplied and demanded. With innovative finance, the range of possible stakeholders moves well beyond development agencies and central governments, and can include national NGOs, local banks or financial intermediaries, sub-sovereign governments, and users, as well as donors and International Finance Institutions (IFIs). While traditional finance flows were used for capital investment costs, innovative finance can also be applied to issues such as a utility's operational efficiency, business development skills for non-utility service providers; connection fees for the poor; and longer-term sustainability of services. The different types of mechanisms currently being explored are listed in Table 1 below.

**Table 1**  
**Range of possible financing sources and instruments for the water sector in small towns**

• User fees (tariffs)	• Bond markets
• Domestic taxes	• Equity
• Grants	• Direct private investment
• Loans	• Mixed credits and export funds
• Micro-credit/micro-finance	• Voluntary finance schemes
• Environmental charges	• Guarantees
• Dedicated or special purpose fund	• Debt swaps

Source: ERM, 2003.

Most, if not all, are premised on the principles of cost recovery from users, whether residential, commercial, industrial, or government, to varying degrees. To attract more commercial forms of finance, demonstration of credit worthiness is imperative, which requires good governance structures, recordkeeping of accounts and finances, demonstrated cash flow (through cost recovery or other means), ability to manage debt, given cash flow and assets, and a stable macro-economic framework.

<sup>13</sup> Mehta, Meera and Thomas Fugelsnes, 2003. "Water Supply and Sanitation in Poverty Reduction Strategy Papers: Developing a Benchmarking Review and Exploring the Way Forward." WSP-Africa, Nairobi. Internet: [http://www.wsp.org/publications/af\\_benchmarking.pdf](http://www.wsp.org/publications/af_benchmarking.pdf). Notably, there is some improvement in this regard in the second round of PRSPs expected in 2006 and beyond.

These existing and potential sources of finance and other instruments for the sector can be delivered in many ways, whether through an MDG-based PRSP process, if applicable, or through public private partnerships at a sovereign or sub-sovereign level. Table 2 highlights some of the avenues through which these finance mechanisms may be designed.

**Table 2**  
**Avenues for finance**

<ul style="list-style-type: none"> <li>• PRSC (as mapped out in the MTEF or SIP)</li> <li>• Public private partnerships</li> </ul>	<ul style="list-style-type: none"> <li>• SWAP (donor funding)</li> <li>• Domestic financial intermediary (e.g., local banking sector, micro finance NGOs, credit cooperatives, etc.)</li> </ul>
<ul style="list-style-type: none"> <li>• MDG-based planning</li> </ul>	<ul style="list-style-type: none"> <li>• Public sector financial agencies (e.g., public banks that provide loans to municipalities)</li> </ul>

Source: ERM, 2003.

The applicability of these mechanisms and processes to small towns may vary, depending on how well the governance and macro-economic constraints are addressed at sovereign and sub-sovereign levels, as discussed in **Section 3**. Importantly, none of the mechanisms in and of themselves are entirely new - many are based on ideas which have been applied successfully either in other sectors within a developing country context, or in industrialised countries. **Section 4** will describe some of these mechanisms further and provide concrete examples.

### 3. Constraints to finance in small towns (the demand side)

There is a range of constraints that hinder successful application of different finance mechanisms to the water sector, which have specific relevance for small towns. These have become increasingly relevant for policy interventions, and serve as a key determinant for planning. While there are many case-specific constraints,<sup>14</sup> in general they can be categorized as:

- Political risk/governance issues;
- Technical, administrative, and financial capacity issues (including project preparation capacity); and
- Financial/commercial constraints.

#### 3.1 Political and governance issues

On the surface, the trend towards decentralizing governance functions to sub-sovereign levels may be seen as an opportunity for small towns to improve their water services. However, the process is ongoing and dynamic. Local authorities in small towns are often highly reliant on the central government structure for funding, whether through block grants, subsidies for specific public services, and, in more developed economies, guarantees for sub-sovereign borrowing. In many countries, local tax revenue collected by government must be sent back to the central government for re-distribution. While the objective of this routing is, in theory, to cross-subsidize poorer communities that are unable to raise sufficient revenues from the local tax base, the transfers within and throughout the different levels of government cause delays and leakage, disrupting the authority and power of the local government structure, as envisaged through a decentralized institutional framework. Other challenges in the relationship between central and local budgeting include the prevalence of annual budget allocations, despite the need for longer-term planning and investment, particularly within smaller utilities. Legal and institutional arrangements often prohibit or ignore the role small-scale private domestic providers play in water and sanitation services delivery.

In addition to budgeting and disbursement delays, local authorities are often unable to attract non-sovereign finance to the water sector without jeopardizing their annual allocation from the central budget.

<sup>14</sup> These are detailed in the World Panel on Financing Water Infrastructure (the Camdessus Report), and the EU Water Initiative's Phase 1 and Phase 2 reports (see **References** section)

As a result, there are limited incentives for local authorities to consider alternative sources of finance. In some countries, such as Uganda, awareness that the private sector is needed in different forms to finance water sector infrastructure investments has resulted in a considered change to the budget ceiling policy. This may help to inform the process in other countries as well.

While some small towns are municipalities in and of themselves, a municipal governance structure may also encompass several small towns and rural areas, or may include a larger urban area. This may have legal and regulatory implications which, coupled with public administration and financial management issues, can constrain the range of financial mechanisms and management models that can be used for water services. Issues like asset ownership, control over contracting and procurement functions (e.g. to small-scale domestic service providers or other private sector participation), as well as and tariff and subsidy policies may pose additional problems.

Small towns tend to have fluctuating populations and varied ability and willingness to pay for water and sanitation services. Pro-poor principles, including subsidizing connections for the poor, tend not to be incorporated when policies are implemented. Tariff policies that fail to result in cost recovery even for operations and maintenance, or which create incentives for paying customers (often industrial and commercial business) to find alternative sources of supply, all contribute to the lack of financial sustainability in the sector. These constraints all relate to political and governance problems.

### **3.2 Capacity constraints**

Local authorities tend to lack knowledge of the different finance mechanisms that are available either to the public or domestic private sector. Capacity constraints include weak business development skills needed to access existing finance; and often insufficient technical skill, as qualified people move to larger towns and urban areas where there is more opportunity (e.g. higher salaries and better social amenities). Donors are increasingly looking to work at decentralized levels of government, which tend to lack the capacity, and mandate, to manage and negotiate the administrative burden posed by multiple donors, NGOs, and other sources of funds.

Where donors and governments have invested in small towns, there is evidence that the resulting infrastructure is over-designed relative to the town's technical, administrative, and financial capacity. Communities have not always been involved in the planning and development of the infrastructure, and the approach has often been uncoordinated. Typically, this results in an underused and inoperable system over time, creating a cycle of donor dependence that, somewhat ironically, feeds on poor management capacity.

### **3.3 Financial and commercial constraints**

The identified constraints contribute to the varied financial and commercial risks that constrain financial flows to small towns. The water sector has historically been funded through a mix of government funding, donor grants and loans, and NGO activities. These sources of finance tend to be cheap relative to more commercial sources – in fact most are free or nearly free. Grants do not require repayment, while concessional loans require repayment, with very low interest rates and long grace periods.

These “cheap” sources of finance come with a cost. To begin with, financial flows tend to be unreliable, both from donors to the sovereign level, and from central government to sub-sovereign levels. Preliminary findings from the OECD suggest that the average time between commitments of funding from donors and actual disbursements is eight to nine years. This long lag time affects effective transition from planning to actual implementation.<sup>15</sup> Donor interest in programmatic lending – supported as a means of improving macro-economic frameworks – lead to the establishment of sector ceilings, which ‘cap’ the amount of funding allowed in a budget year. At the sovereign level, financial transfers suffer from poor timing with funds released at the end of a quarter, or towards the end of the year, rather than staged throughout the year. The consequent inability of local governments to spend an annual or quarterly budget in such

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<sup>15</sup> OECD, 2004.

severely constrained timeframes leads to a perception of limited absorption capacity, which often triggers a reduction of budgeted amounts or their re-allocation to other sectors (somewhat negating the logic behind the sector ceilings concept). Donor funding can also have unintended consequences, such as crowding out more locally grounded, market-based approaches, including small scale entrepreneurs, and domestic sources of finance. Perhaps most importantly, these issues offer little but discouragement for local governments to plan effectively.

From a service provider perspective, many small town utilities are not financially autonomous, meaning that they do not manage their revenues and costs directly. Most are not financially viable, mainly because tariffs have been set in an ad-hoc manner, and are inadequate for the recovery of even operation and maintenance expenses. Many utilities face an additional problem of large outstanding debts – often a hangover from ‘cheap’ finance - for which newly decentralized government institutions are responsible. As a result, the utilities are endlessly dependent on subsidies (more cheap finance), largely from government or donors. This situation stifles innovation and the opportunity to find better - and likely more effective - uses for taxpayer money. For more financial challenges faced by small utilities, see Box 3.

**Box 3**  
**Financial challenges for small utilities**

Many small towns have some level of piped water service, provided either as an extension of a larger utility, or as an autonomous utility. These smaller utilities do not benefit from economies of scale, and therefore face high fixed costs from their capital expenditures as well as administrative and technical overheads. Where such small utilities exist, they are often over-designed, whether in terms of technology used, or in terms of the financial, technical, or administrative capacity of the municipality and/or service provider. Poor tariff policies and collection rates are common, contributing to the unsustainable financing cycle described above.

Likewise, ability and willingness to pay of the customer base in small towns varies. Willingness to pay for services may be based not only on financial resources, but also on the availability of other sources of supply. For example, existing or potential customers who have their own wells may not see the benefits of switching to networked supply. Ability to pay is another consideration. Low income, or migrant users of water in small towns may not be used to paying for water; this poses a challenge for collecting connection or user fees. The net effect of all of this is inadequacy of revenues from user fees to cover the utility’s recurrent costs, let alone fixed costs.

Given these challenges – high fixed costs on the one hand, and poor cost recovery on the other, financing new infrastructure in a traditional sense is often difficult for a small town. New approaches, such as phased infrastructure development that matches supply with demand, may be more appropriate. In this instance, the scope for using innovative finance may be considerable.

Source: Pilgrim et al., 2004.

Small-scale private providers of water and sanitation services, who provide a valuable service in small towns, face different kinds of financial and commercial constraints. Commercial constraints include inadequate technical and business management skills, such as preparing business and financial plans, negotiating with utilities and lenders, and the poor record keeping. All of this ultimately constrains access to finance, because of the lack of a formal credit history. Often, SSIPs operate informally and even illegally, leading to ‘boundary problems’ with the legal entity. Financial constraints include a lack of access to formal sources of finance, caused both by a lack of collateral and lack of credit history or by a lack of capacity in domestic financial markets to supply these providers. These commercial and financial risks are passed on to customers by way of higher charges, sometimes up to 20 times that of the utility’s fees. International investors who might be interested in small town service provision also face a variety of financial and commercial risks. A key risk is associated with foreign exchange, as tariffs are collected in local currency while the investor’s financing is in foreign currency. This is compounded by contractual risk surrounding the longer-term nature of water sector investments measured against the more short term political risk of election cycles, as well as government failure to implement needed cost recovery and tariff reforms such that the investment can be repaid while still making sure that the poor have access to basic services.



As a result of these constraints, commercial financing for small towns tends to be unavailable, either because sources of commercial finance will not participate in the sector, or because the terms that they offer – with short tenures and high interest rates, and collateral demands that exceed the cost of the loan itself – are impossible for smaller utilities to manage.

All of these constraints hinder more and better finance for water supply and sanitation interventions in small towns. While the challenges are substantial, they can be overcome, through a mixture of smarter targeting of grant-based ODA, a stronger planning process that includes different stakeholders, and creative thinking about how a particular situation might benefit through appropriate use of finance mechanisms. If small towns can create better value for money, they will be able to attract finance. **Section 4** provides some concrete examples of how this can be done.

## **4. Experiences with finance mechanisms**

This section presents some of the current experiences with the innovative finance mechanisms presented in **Section 2**, given some of the constraints explored in **Section 3**. Importantly, it will discuss how these have worked, as well as some analysis on how specific constraints have been resolved when planning interventions.

### **4.1 Using grants as a lever for change at district/municipal level: seed finance, pooled finance and output based aid**

While grant financing has traditionally paid for the bulk of projects, requiring marginal community participation in the planning or implementation stage, new ideas have been tested with varied success to tap into the benefits of grant financing to stimulate sustainable finance. Some of the new ideas include targeted policy and governance reform, seed finance, pooled finance and output based aid at district or municipal level, to support small towns.

Governance and institutional capacity issues have been identified repeatedly over the years as a sizeable blockage to better and more financial flows reaching the water sector. While grant finance has traditionally been used to support governance reform (usually at the sovereign level) new approaches are being developed and tested that use seed finance to strengthen capacity at decentralized levels, including towns, as is described in Box 4.

Groups of small towns may also aggregate their water services, in order to take advantage of **pooled finance**. This process can either be voluntary, or mandated by central government, often through financial incentives. Box 5 provides an example from Eastern Europe.

#### **Box 4**

##### **Using grants to stimulate governance reform**

As in many countries, Sri Lanka's legislative reforms leading to decentralization pre-dated the capacity of many smaller communities to handle the technical, administrative, and financial responsibilities imposed on them.

To strengthen local governance, UN-Habitat, as part of a wider UNDP Urban Governance Reform Program, is currently working on a water initiative in 12 towns across the country. With US\$250,000 in grant finance, the program works with each of the 12 towns' community based organizations (CBOs) to design water connections through a process that flows from the upstream planning and design stage through to implementation and management. Working with the CBOs, technically appropriate designs are developed, given financial resources, demand, and other factors. UN-Habitat provides support, and acts as a broker between each CBO and the Water Board, in order to determine payment levels and charging arrangements. The organization also helped the municipal government to develop regulations relating to land tenure for households that receive connections. This has resulted in security of tenure, and has also created a new tax base for the municipality.

The organization's experience with this project was that the process was time-consuming, and required slow steps to convince town governments that this process-based approach was useful. Over time, however, as connections to water systems increased and cost recovery became apparent, more municipalities and even the National Water Board have sought to adopt and replicate the approach, which appears to have an impact on implementing the broader decentralization policy.

Source: ERM, 2005d

#### **Box 5**

##### **Grants as incentives for aggregation of small towns in Hungary**

In Hungary, after the collapse of communism, the largely agricultural town of Dunavarsany (population 6,000) lacked running water, sewage treatment, and other basic services. In addition to the agricultural base, the town also contained several small food-processing plants, and an additional 15,000 visitors during the summer months and on weekends (largely from nearby Budapest).

In 1993, Dunavarsany and five other (smaller) municipalities formed the Dunavarsany Wastewater Association in order to qualify for a State grant funding to build a wastewater treatment and reclamation system, which treated wastewater for use in the irrigation of agricultural lands. Through the Association, smaller towns that had failed to meet the population threshold required were able to obtain funding. Likewise, the group was able to obtain substantially more in funding through aggregation than would have been the case if each town had applied individually. Through the grant program, State funds were available for up to 60% for treatment, and 50% for collection costs.

Dunavarsany assumed leadership of the Association, donating staff time and overhead costs through its local government system, as it was best equipped to conduct these activities. The Association designed, funded, and built a 6,500 m<sup>3</sup> per day wastewater reclamation system, as well as Hungary's longest vacuum sewerage system. Once the system was built, the Association's role reduced to negotiating with the designated operating company, which operates and manages the system.

As a result of this pooling of small towns, Dunavarsany was able to reduce pollution and meet EU standards for wastewater treatment. Residential property values increased, and the existence of infrastructure attracted industrial and commercial enterprise, contributing to the region's economic development. The regional cooperation that developed also forged relationships for stronger cooperation on issues such as public space and regional development. On the other hand, because Dunavarsany possessed the governance skills and initial funding to manage the Association, there were power struggles and tensions between the larger and smaller towns. To address these challenges, the Association works to maintain open communication channels to the professional, political, and technical staff in all of the member communities, as well as communicating directly with the public through newspapers.

Source: ERM, in association with Stephen Myers Associates and Hydroconseil. 2005b.

**Output Based Aid (OBA)** is either a grant subsidy or a concessionary loan designed to address the gap between what users typically can afford for services, and the real costs to provide quality services. By designing performance-based subsidies that clearly identify who will benefit, the types of activities that qualify for the subsidy, and how much subsidy will be provided, OBA seeks to increase access and service quality for the poor.<sup>16</sup> It is provided by donors and IFIs, such as the World Bank's Global Partnership for Output Based Aid (GPOBA), to governments or service providers, whether utilities or small scale providers. Generally, OBA is considered a pro-poor incentive for utilities to extend connections into peri-urban and un-connected areas.

Output based aid is a fairly new concept, supported by the World Bank since 2000. Consequently, experience with it is limited. An example of OBA for the water sector is provided in Box 6.

**Box 6**  
**Using output based aid in Tanzania**

Small towns have developed throughout Tanzania in response to population growth and rural migration patterns, whether as a central market for rural traders, or with more settled populations. In both cases, the need for water supply and sanitation is acute.

Tanzania's water services delivery has undergone rapid change in recent years. Historically, the central government assigned different donors to different regions, who then built infrastructure in those areas. Adopting a very supply-side focus, the donor agencies did not incorporate planning, stakeholder input, or cost recovery principles into practice. As a result, many of the systems implemented lack the capacity to maintain them. In 2002, Tanzania passed a new water policy that focuses on sector coordination and support for decentralized service delivery in rural areas. The country's recent PRSP is premised on outcomes rather than inputs, in an effort to integrate the different sectors so as to achieve development targets.

In June, 2005, the GPOBA announced the funding of a range of activities and pilot programs to test whether OBA is applicable for secondary and small towns, working with local, private sector service providers, whether through supporting existing business or supporting new business. The goal for the projects is to demonstrate that domestic private firms can assume the commercial risks associated with the water sector, using the OBA scheme to create incentives and non-commercial risk mitigation. To fund this project, GPOBA will provide US\$428,000; the project has an additional US\$30,000 in co-financing.

Source: Global Program on Output Based Aid website

#### **4.2 Use of micro-finance mechanisms to stimulate financial sustainability**

As with grants, sovereign loans provided on concessional terms (meaning with longer grace periods, lower interest rates and for longer terms) can also be re-thought to support more successful approaches that stimulate local ownership and sustainability. Here, the innovation tends more towards thinking beyond sovereign or central governments as the key borrowers, it includes consideration of solutions that democratise borrowing and lending to a variety of different stakeholders. This can include users, local governments, NGOs, micro-finance organisations, commercial enterprises, or a combination of the above.

Small towns often rely on some level of micro-finance to support business enterprise. In some cases, forms of micro-finance may be applicable for the water sector. Using grants or concessional loans, donors or I/NGOs, in collaboration with central government, may be able to create incentives and an enabling environment for micro-finance institutions to penetrate this 'new' market. An example from Kenya is presented in Box 7.

<sup>16</sup> Global Partnership on Output Based Aid, 2005.

**Box 7**

**Micro-finance for water in Kenya**

Historically, micro-finance has not been an option for financing water supply and sanitation, despite the apparent benefits of applying the micro-finance model for water investments, particularly in marginalized areas. In Kenya, where only 10% of the population is estimated to have access to financial services, K-Rep bank (which was founded as an NGO), works to balance its social and profit-oriented mission by providing financial services to the poor. In its four years of operation as a commercial entity, K-Rep's outreach extended from 15,000 to 90,000 borrowers and savers. Over time, K-Rep has diversified its product offering, and works with a range of individuals, community based organisations, and non-poor clients (whose deposits could help the bank's financial position, and provide it with a base to expand into additional poor areas). Despite the range of services offered, K-Rep did not finance water sector investments.

With the passage of the 1999 National Water Policy and the 2002 Water Law Amendments, responsibility for water services provision passed to decentralised levels, while the central government assumed a regulatory and enabling function. Local governance agencies and water boards are now allowed to enter into contracts with water service providers (whether public sector providers, community based organisations (CBOs) or private small service providers). This provides an opportunity for many CBOs who cannot otherwise afford to expand, rehabilitate, or improve their water service delivery capacity to engage in partnerships to meet their needs.

Recently, K-Rep has started work to develop a program to support low-interest loans and other debt mechanisms for water sector investments, based on the following commercially-driven principle: if micro-finance mechanisms could be used to support water sector investments, then individuals and communities – many of whom are already clients - would soon be able to use K-Rep for more banking services, which will have both commercial and poverty impacts. This illustrates the possibility for water sector stakeholders to think innovatively about how to create new opportunities with financial intermediaries who either already work in small towns or may be interested in expanding into a new area, if they are provided with incentives and assurances that help mitigate unacceptable levels of risk.

Source: ERM, 2005c

NGOs are another stakeholder group with a clear role to play in stimulating finance for the water sector. In many countries, NGOs have traditionally served as service providers. With the increased importance of Poverty Reduction Strategy Papers, NGOs are also becoming stronger advocates for the sector – a trend that complements the trend towards decentralisation, which clearly places local governments in charge of service provision, whether they outsource it, or provide the services by themselves. NGOs can also play a role in providing debt-based finance, for example to support networked connections for the poor, particularly in partnership with a utility, or possibly as a partner to OBA schemes or banks with micro-finance that wish to expand their activities in the water sector. Boxes 8 and 9 provide examples from the Côte d'Ivoire and Burkina Faso, respectively.

**Box 8**

**Debt mechanisms via NGOs in Côte d'Ivoire**

One of the core constraints to water supply access in peri-urban areas is the high connection costs to a networked utility. In three neighbourhoods of Ajidjan - Adjamé-Kennedy, Vridi III and Abobo-Sagbé - in the absence of a network connection, households purchased water of questionable quality from informal vendors, at several times the utility's tariff.

In this case, a form of public-private partnership emerged which is relatively new to the sector. CREPA Côte d'Ivoire, an NGO, partnered with SODECI, the public water utility, to enable poor households to connect to the network. CREPA's objective was to provide households with the opportunity to connect to the network, both to improve the quality of their drinking water, and reduce the over cost to households. The partnership was relatively straightforward: CREPA first pre-financed the full amount (US\$36 each) of connection fees as a loan for all 300 households in three peri-urban villages. At the same time, CREPA provided a capacity building program aimed at mobilizing household savings to repay the loan and ongoing water bills.

Through this program, a voluntary household committee was created, which, cleverly, was supervised by the informal vendors who lost their jobs when the network connections were installed (CREPA provided the necessary training). A tire lire (akin to a piggy bank) was placed in each household, where users deposit the amount they would have spent for water from the informal vendors. Through this arrangement, they were able to create a savings pool for paying the less frequent, monthly water bill. At the end of every month, the households paid their bills: a portion of this was set aside to pay the supervisors, and the rest was used to reimburse CREPA for the connection fee until it was repaid in full. Having developed the habit of depositing money daily into the tire lire, households, and particularly women, have also been able to generate income for other productive uses. Notably, the collection rate after three years is 95% of water supplied, illustrating that cost recovery and pro-poor outcomes are feasible when water sector stakeholders (in this case, the utility and an NGO) think creatively about partnership and carefully about how funds can be mobilized and spent.

Source: Kouassi-Komlan, E. and T. Gnagne, 2005.

**Box 9**

**Financing urban sanitation in Wogodogo, Burkina Faso**

In Wogodogo, a low-income neighbourhood in the capital Ouagadougou, a saving-credit initiative has been set up for household management of domestic waste. The credit was provided by LAGEMYAM, a women's association working for improved sanitation. LAGEMYAM agreed to finance the initial 70% needed to start up the credit system. The interest rate was 5% and covered mainly administrative costs. Additionally, LAGEMYAM thought that because the population was poor it would be difficult to ask for collateral, hence the credit was provided based on moral values and the premise that the borrower would need to be known by the association before having gaining access.

In a first phase, solid waste collection was organised and 28 households have benefited from the initiative and constructed 35 excreta and wastewater infrastructures such as VIP latrines, drainage and soak pits for domestic waste treatment. But only five households reimbursed the credit. LAGEMYAM and CREPA had assumed that part of the revenue from the solid waste collection would finance the credit system for the excreta infrastructure. But in reality this did not happen as the population was used to get the excreta infrastructure for free and any revenues from solid waste collection were invested primarily in basic needs such as getting water and food rather than paying back the loan.

During the second phase, 18 households constructed 20 sanitation facilities. The number of reimbursements improved slightly, because project animators from CREPA and the NGO EAST undertook an awareness campaign. Participatory approaches, with the objective to help the population develop self-confidence and commitment took place in order to improve their attitude vis à vis the credit system. The beneficiaries then realised that if they failed to pay back their loans, the system could not continue to run and the dynamic of excreta infrastructure building would stop in the neighbourhood. As a result of these outreach efforts, levels of repayment increased, and the rate of reimbursement is over 80%.

Source: CREPA, 2003

### 4.3 Equity mechanisms to support domestic private sector development

Equity – broadly meaning a stake in ownership – can be used to strengthen a company's financial standing (for example a utility or service provider) in order to improve its ability to absorb financial and commercial risks. It also serves to increase a company's borrowing power, both in terms of quantity (total amounts) and quality (terms of debt). It differs from debt in that it does not require repayment, and, importantly, equity stakeholders (the ownership) have a greater incentive to ensure the financial viability of the company.

Applied in the water sector, equity can be a useful mechanism in a public private partnership, through which a newly created joint venture company, with public and private ownership, can create incentives for both parties to perform. For example, a financially sound utility may be able to “swap” some of its equity to restructure its debt, resulting in lower debt finance charges and greater financial flexibility. Because equity tends to be more expensive than traditional grants and concessionary loans, experience with equity deals for water sector investments in developing countries is limited. However, the perception that equity is not relevant for the water sector in developing countries may be grounded in the historic thinking of private sector participation only in terms of international investments. An example of a debt-equity swap is provided in Box 10.

#### **Box 10** **Debt-Equity Swap in Senegal**

Before 1995, the urban water supply in Senegal faced considerable challenges: there were water supply shortages in Dakar amounting to 100,000 m<sup>3</sup>/day, water losses estimated at 32%, high debts of decentralized government institutions to the water utility (30% of revenues) and the national public utility SONEES was unable to fund the investments required, which amounted to US\$150 millions in 1995.

The sector reform that took place included the development of a financial model and tariff structures which have led to full cost recovery for urban water by 2003. A national holding company, SONEES, was established to be in charge of water investment and financing procurement. The financial instruments applied which have been instrumental to support the development of the Senegal model have included a debt for equity swap for SONEES provided by WB and KfW (US\$ 90 million); IFI and donor finance of major investments (US\$ 100 million) and a commercial bank loan to SONEES from local banks (US\$ 11 million).

This use of a debt for equity swap was highly unusual for the World Bank and other IFIs, while the notion of a water utility receiving a commercial bank loan was unheard of in sub-Saharan Africa in 1995. Still, with equity financing from the World Bank and KfW, SONEES was able to obtain a line of credit from Citibank, a US-based bank that has a presence in Senegal. Citigroup's approach was to organize local banks, including Compagnie Bancaire de l'Afrique Occidentale (CBAO), to provide the loan.

The loan, for US\$21.4 million over six years, had an interest rate of 10%. In addition, the commercial loan was premised on a few conditions. First, SONEES had to deposit remittances made by a private operator into an escrow account, from which debt service payments would be made. The Government of Senegal provided a letter of comfort, which served as a sovereign guarantee. Further, the commercial line of credit did not become effective until after the World Bank's credit was active.

This type of arrangement, where debt is structured as equity (meaning that investors have an ownership stake in the sector, rather than being creditors) means that the capital invested does not require debt service, but did require some discussion as to whether the sector should pay dividends to the equity investors. While the use of equity as part of water sector reform was innovative, and resulted in some delays, it led to a stronger utility that is now functionally independent, credible in the international and national community, and, perhaps most important, financially viable.

Source: Personal communication; Mouhamed Fadel Ndaw presentation at Stockholm Water Week 2005; (Brocklehurst, C. et al. 2004)

More recently, innovations in the use of equity, combined with other finance mechanisms, may be applicable for development in small towns. For example, locally focused design, build, and operate contracts for water supply and sanitation, which are funded with equity investments from a larger utility, have been demonstrated to be viable, as illustrated in Box 11.

**Box 11**

**Use of Design-Lease-Build contracts in Vietnam**

In Vietnam, small towns are differentiated from “townlets”. Their small town population ranges from about 4,000-30,000, while townlets have a minimum population of 2,000 (1,000 in mountain areas). Only 30% of small towns, and 15% of townlets have piped water systems, with a range of connection rates, from 20-80%. With 7% of the country’s total population (5 million) living in small towns, and 15% (10 million) living in townlets, this represents a considerable portion of the country’s gap in meeting the MDGs.

To address this service gap, the World Bank is supporting a design-build-lease project in two towns, each with a population of about 10,000. Under the scheme, private contractors design, build, and operate the water system, borrowing funds drawn from the water utility, which the utility offers as an equity investment. After a grace period, which allows the contractor to generate cash reserves in case of cash shortfall during the design and construction period, the contractor repays the utility, including the debt service fees, out of its revenues.

In order to avoid costly delays, stakeholder engagement is used to determine the feasibility of design and cost estimates, as well as agree on tariffs. Importantly for the contractor, while the tariff does not reflect full cost recovery, the local authority (and users) must agree to a minimum consumption of 5 m<sup>3</sup> of water per billing period for the scheme to be viable. To cover connection costs, users preferred a higher monthly tariff rather than an up-front charge; likewise, they agreed to small, more frequent tariff increases over time rather than larger, infrequent increases. After addressing issues such as these, the local authority must vote on whether the plans are viable, and whether the utility is allowed to assume the loan which kick-starts the investment.

The benefits of this approach are that the contractor must operate the system it builds, which counters the inclination for over-design, and because revenues are directly tied to tariffs, the operator has an incentive to connect customers and provide good customer service, which includes billing and collections. For the utility, the risk of fronting an equity investment under the scheme (15%) is managed because the assets – which will grow in value through the scheme – belong to the utility, providing an additional incentive to provide oversight over the private contractor. Likewise, the contractor is bound by a performance bond in case the contractor does not meet its obligations. Importantly, there is a competitive market for operators in Vietnam, which increases the likelihood of success to the utility and local government. For small towns, then, there may be options for provincial or regional utilities – or even a local utility in a nearby large town or urban center – to provide equity investments to support piped connections in small towns while supporting local economic development. Preliminary findings from the scheme suggest that capacity building to understand the contractual implications may be needed, however they also suggest that small town water supply can be profitable for smaller operators, provided that enough work is done upstream to get the incentives right, and address different risks.

Source: Kingdom, 2005

#### **4.4 Risk mitigation**

The water sector poses many risks to both international and domestic investors, as discussed in **Section 3**. Many of these risks are inherent to all infrastructure sectors, and are largely mitigated through the use of guarantees and insurance products. Guarantees are a form of risk mitigation that can be used with debt or equity, and can provide coverage against the political, regulatory, policy, and sovereign risks that may be associated with a project. They can serve to improve the credit of a borrower, whether public or private, and can lower the cost of debt. For small towns, which pose considerable governance and capacity risks, these mechanisms could be very useful to increase the attractiveness of water and sanitation investments.

The use of guarantees in the water sector is minimal compared with other infrastructure sectors,<sup>17</sup> largely due to characteristics that are unique to the water sector relative to other infrastructure, including political interference in tariff reform, low cost recovery, and the level of governance responsible for water services. Principles of due diligence, governance, transparency, accountability, and thoughtfulness with regards to technical and financial design are imperative for a guarantee to be considered. In most cases, sub-sovereign entities lack the credit history to be able to obtain a guarantee from an IFI.

<sup>17</sup> Pricewaterhouse Coopers, 2003

For small towns, the concept of using guarantees to support local utilities, small scale private entrepreneurs, and financial intermediaries (whether domestic banks, micro-credit funds, or, if regulation allows, NGOs) as they develop and strengthen local sources of finance may be useful; nevertheless, the practical application of guarantees in small towns may prove challenging. While a guarantee can make a project more attractive to private investors, it cannot turn a bad project into a good one. Given the poor levels of capacity at sub-sovereign levels of governance, the broader application of guarantees beyond a few specific countries may be difficult. A further challenge is that while guarantees may be made at a sub-sovereign level, in practice the sovereign entity still needs to sign a counter-guarantee. Because guarantees impact a country's debt ceiling, obtaining these counter-guarantees can be expensive, both in terms of financial and political capital.

Despite all of these possible challenges, it is possible to structure a guarantee for small towns. Box 12 illustrates the use of guarantees to local banks in Cambodia to support community-based water supply.

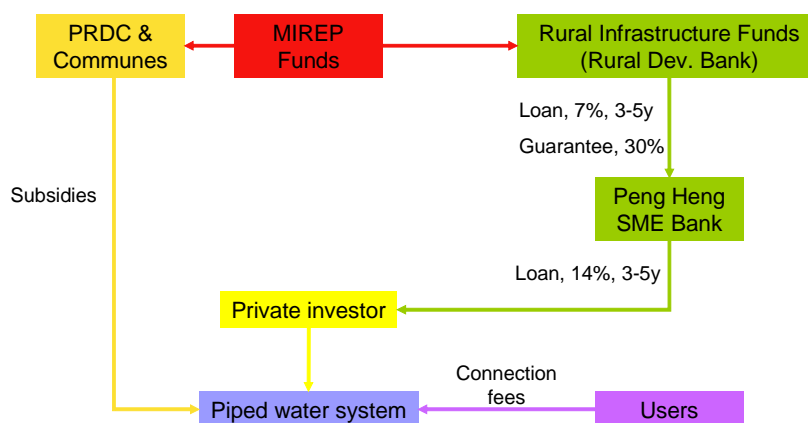
**Box 12**  
**Use of a guarantee for small towns in Cambodia**

In Cambodia, an international NGO (GRET) has put in place a Rural Infrastructure Fund (RIF) in a public development bank illustrated by the figure below. The objective of this fund is twofold:

- To provide medium-term (3-5 years) loans to local commercial banks who wish to finance investors involved in financing piped water systems (in Cambodia, credit is provided on a short term basis only);
- To provide a guarantee (30%) on loans for those commercial banks in case of default of the investor. Due to this guarantee, the commercial bank can ask less collateral and accept lower credit rate to the concerned investors.

The program run by this INGO consists in support rural private sector to invest and build piped-water-systems with technical and financial assistance. The investor connects the people with water-meters and collects the bills every month. The INGO has helped the installation of 10 systems which rate of coverage reach more than 85% in certain areas.

Financial structure of the MIREP project, put in place by GRET:



Source: Personal communication. To know more about MIREP consult Mahé et al. 2005.

Bond banks, or revolving funds, can serve to aggregate project-related risks into a portfolio for networked infrastructure projects (whether urban or small town) in order to enhance the credit to access debt, equity, or guarantees. In essence, a revolving fund transfers repayment capacity to the portfolio, rather than to individual projects, resulting in stronger credit profile and lower interest rates for municipalities, as well as lower transaction costs for developing projects. As with the Dunavarsany case, illustrated in Box 4, a revolving fund can also help smaller towns access finance that would not be available to them otherwise, due to their size and risk profile. In addition to this risk-mitigating characteristic, a revolving fund also creates a reserve fund, in case of cash flow problems, in order to offset the risk to investors (whether public or private). An example of a revolving fund from Ghana is provided in Box 13.



**Box 13**

**Use of revolving funds for water infrastructure, Ghana**

The Association of Water and Sanitation Development Boards (AWSDBs) was established in 1995 in a CIDA-funded rehabilitation project involving 14 priority communities. A minimum deposit was required for O&M, representing 5% of project capital costs. The 14 communities formed a private association to save the deposit, which was then transferred to the watsan sector agency (CWSA). Accumulation of funds has since grown and 22 more communities have joined.

A key strategy of the AWSDBs for the mobilization of deposits was to establish a reserve fund, which is invested in Treasury Bills and other short-term, high return investments. The interests earned on the reserve fund represent a large capital base for member boards in each district for their water supply and sanitation activities. Credit provision began in 2001 and monies have been disbursed to 20 member water boards for major replacement works and to cover the waived 5% community contribution of the poorest communities. No interest rates were charged on loans until 1994.

Credit delivery processes comprise both formal and informal methodologies. Formal pre-screening techniques require member boards to have their application approved by the governmental District Assembly, which also acts as guarantor in case of default. Loans granted to member boards have varied from €2 million (US\$ 220) to €50m (US\$ 6,000), with an average of €14m (US\$ 1,555). Amounts accessed depend on the value of shares purchased by the respective board, the extent of planned rehabilitation and expansion and also on the board's available funds.

The AWSDBs have begun to take steps to ensure profitability by charging commercial rates. However, a low rate of loan recovery (32%) is now affecting the level of reserve funds and the AWSDBs' potential to earn income to support its operations. Continuous withdrawal is depleting reserves available for investment and for operational expenses. Low investment levels mean low returns, which reduces the capital base and the ability to support member boards.

Source: Agbenorheri and Fonseca, 2005.

**4.5 Use of municipal capital markets to fund water sector infrastructure**

In many countries, and perhaps most strongly in the United States, municipalities participate in a bond market to fund public infrastructure. These markets tend to offer stable returns to investors, who tend to be pension funds and institutional investors. Traditional forms of finance for the water sector in developing countries have not included municipal capital markets simply because they did not exist. Despite the mixed results thus far with decentralization in many developing countries, often referred to as a constraint (in this report and many others), there is another story – that of those countries which have benefited from decentralization, and are using its premises to create, and use, municipal capital markets for water and sanitation interventions.

A number of donors are working from different angles to help create greater involvement of municipal capital markets in the water sector. These include USAID's Development Credit Authority (DCA), the IFC Municipal Fund, and the many active members of the International Association of Local and Regional Development Funds in Emerging Markets (IADF).

Some of the main constraints to municipal capital market development are weak accounting and financial standards, as well as financial capacity both at central and sub-sovereign levels. Historically, borrowing by local government has been restricted. The somewhat delicate balance between sovereign and sub-sovereign uses of available credit (the creation of municipal capital markets deconcentrates what was once the domain of the sovereign, even as the sovereign is still ultimately responsible). Additionally, access to loans may enable cities to undertake capital investment, but can distort choices. For example, the growing bond market in India has enabled Bangalore to undertake 'mega projects' that have little benefit for the poor.<sup>18</sup>

Municipal capital markets also create the need for a country to manage the total borrowing limits for the country, as the actions of one municipality can impact the credit rating and borrowing capacity for the whole country. Along these lines, it is difficult to determine a municipal credit rating, given the lack of

<sup>18</sup> Devas, 2001.

municipal credit infrastructure, including local investment banks or markets that can facilitate the transactions. Support of the government is crucial for credit ratings as it reassures investors that funding provided will be repaid.

For countries with municipal credit infrastructure, as in Eastern Europe, unfamiliarity with the market, and high “first mover” costs constrain growth in the market. Looked at from a different perspective, International Finance Institutions (IFIs) and donor agencies also tend to lack the capacity to support sub-sovereign lending and guarantees (only a few IFIs are able to provide direct, guaranteed loans to the sub-sovereign level, while countries’ high debt burdens from failed donor projects also limits a country’s capacity for borrowing).

Still, municipal markets have been met with some successes, notably in Tamil Nadu, India; Tlalnepantla, Mexico; and Johannesburg, South Africa. Box 14 illustrates the well-known example from Tamil Nadu.

#### **Box 14**

##### **Shaping up the public sector, and launching a municipal bond in Ahmedabad, India**

Ahmedabad is the largest city in the state of Gujarat, India, as well as the commercial capital of the state. Despite economic growth in the city, the city has a high rate of poverty – in 2000, 41% of the city’s population lived in slums and low-income housing.

The Ahmedabad Municipal Corporation (AMC) was created to provide infrastructure services in the city, including water supply, sewerage, and storm water drainage, road construction and maintenance, street lighting, and management of parks and gardens. By the mid-1990s, the AMC faced considerable financial deficits, of US\$9.2 million, even as major improvements to services, particularly for water supply and sanitation, were highly needed. In 1994, the AMC embarked on a reform program that included improving accounting and financial management systems, improving revenue collection, and improving its staff. For example, the AMC’s main revenue source (70-75%) was an octroi tax, levied on imports into the city. As part of reform, the AMC updated the tax rates to reflect current market prices, worked with the police to identify and catch defaulters, developed a wireless network for all check posts, and organized several teams of inspectors to conduct spot checks of vehicles. Strict accountability measures were implemented to limit corruption. In essence, public sector staff members were provided the means to do their jobs properly. These activities increased revenues by 60%. The second major source of revenue (about 30%), property taxes, was also not performing; to address this, the AMC developed a computerized database of property owners, fined owners who did not pay their taxes on time, published defaulters names, disconnected water and sewerage services, and issued notices and warrants to get defaulters to pay their back taxes. Again, the AMC also strengthened the collections and enforcement staff. As a result, property tax collection increased by 55%.

Complementing these reforms, AMC upgraded its accounting system from a cash-based, single entry system to a computerized double entry system, and hired chartered accountants to introduce the system to the corporation, as well as assist with the first round of financial reports (in 1998). In 1997, 40 chartered accountants and business management graduates were recruited to key operational and administrative positions, along with further recruitment of professional middle-level managers. This human resource reform was meant to change the work ethic that had stagnated within the AMC, as well as upgrade its image as a responsible organization.

In 1996, AMC developed a US\$150 million, five-year capital investment program, of which \$110 was allocated for water supply and sewerage infrastructure. Using its revenue stream – from octroi and property taxes – as a starting point of about 30%, AMC sought to raise 70% as a starting point (about 30% of the capital investment program’s cost), the AMC sought to raise the remaining 70% of funds through loans and a municipal bond. The AMC received support through this process from USAID, particularly with the financial analyses and preparation of the investment plan. USAID also helped to develop a methodology for assessing municipal credit ratings for the Credit Rating and Information Services of India (CRISIL), an independent agency. In 1998, Ahmedabad became India’s first city to launch a municipal bond. It had a credit rating of A+ from CRISIL. The bond issue was supported through private placement (75%) to institutional investment, as well as sale to the public (25%).

Using some of the cash raised through the bond issue, the AMC was able to develop an emergency bulk water supply scheme, the Raska Project. Raska supplies water to 60% of the city’s population, and provides treated water to residents in the mornings and evenings. AMC has noted that because of its financial standing, it was able to procure private contractors to complete the project under very competitive terms. The Raska project was also completed in record time – 130 days.

In India, as well as in many other countries, urban infrastructure financing is the remit of public agencies, which often lack the skill, capacity, or funding to implement projects effectively. The AMC, and other public corporations in other

Indian cities that followed (including Bangalore, Ludhiana, Nasik, Nagpur, Madurai, Tamil Nadu, and Indore), the switch towards modernized accounting and financial systems, reviewing sources of revenues to increase collections, and a focus on recruiting trained and motivated staff all helped to increase investments to the water supply and sanitation sector using domestic funds. In this case, targeted and strategic support from USAID helped to catalyze finance, and create an infrastructure for further domestic finance in the future. In 2002, Ahmedabad launched its second bond issue, this one tax exempt, to complete its water and sewerage infrastructure plan.

*Source: Hall D, 2003, and Lazar, Reena, 2002.*

#### **4.6 Municipal development funds and public sector financial agencies which are dedicated to providing loan finance for municipal investors**

While much attention has been paid in recent years to the development of municipal capital markets, there are also Municipal Development Funds (MDFs) in some countries that specifically lend to local governments for infrastructure development. MDFs are considered to be an entry point to create systems, at a municipal level, that can eventually borrow from local or international capital markets. By providing loans to projects identified by local governments, MDFs use similar criteria as multi-lateral or regional development banks, but are able to fund smaller projects and at a more local level than is possible by these more international organizations. According to the World Bank's Urban Development site<sup>19</sup> there are two models of MDF, as explored in Box 15 below.

##### **Box 15 Using Municipal Development Funds to stimulate innovation**

MDFs can either work as substitutes for government grants to local authorities, or act as a bridge to private credit markets. Under the first model, which is widely used in developing countries, the MDF, funded by donors and often the sovereign, on-lends to the local authority at concessionary rates, and often in conjunction with subsidized loans and grants (again, from donors and/or central government). This helps to stimulate a market for domestic finance, and introduces local authorities to municipal lending. Because the market is relatively weak, the MDF can seek to incorporate investment priorities from the central or state government level, and work with the local authority to ensure strong project preparation.

For example, in the Philippines, the Local Water Utilities Administration (LWUA) is a specialized lending institution mandated by law to promote and oversee the development of provincial waterworks systems throughout the country. LWUA extends financial, institutional development, technical, and watershed management assistance to water districts and Rural Waterworks and Sanitation Associations (RWSAs). To do this, funding is secured by LWUA from national government equity subscriptions, and from local as well as IFIs and leading bilateral agencies. These funds come in the form of loans guaranteed by the national government, or as grants.

Under the second model, which is perhaps more appropriate only in further developed countries, the MDF works to strengthen both the municipal and financial sectors to support transactions between the private sector and municipalities. Because of this structure, the MDF tends to lend at market interest rates, and works with commercial banks and other private sector lenders in its funding decisions. Further, the MDF requires that private lenders assume the credit risk of the municipal loans, in order to help the municipality develop a credit history. As an example, in the Czech Republic, the MDF borrows funds from international markets with a sovereign guarantee, and then on-lends to domestic commercial banks, who then on-lend to municipalities. For a transaction to happen, a municipality must conduct all of the project identification and preparation, while the commercial banks conduct the credit analysis, and accept repayment risk. The MDF, meanwhile, confirms the creditworthiness of the commercial banks it lends to, and makes capital available to a range of banks, to foster competition.

Similarly, the Infrastructure Finance Corporation Limited (INCA), in South Africa, is a privately owned and operated facility draws on international and domestic sources of finance, whether through bond initiatives, long-term loans extended to INCA by IFIs, and shareholder capital. INCA on-lends to municipalities for infrastructure investment, including water supply and sanitation, largely using long-term fixed interest rate loans. In addition to their infrastructure financing activities, in 1998 INCA created a capacity building grant fund for municipalities to train municipal officers in General Municipal Accounting Practices, as well as financial skills training.

<sup>19</sup> For further information please see: "Innovations in Municipal Finance", at <http://web.worldbank.org/WBSITE/EXTERNAL/TOPICS/EXTURBANDEVELOPMENT/EXTMF/0,,contentMDK:20202920~menuPK:429320~pagePK:148956~piPK:216618~theSitePK:341201,00.html>.

Source: World Bank Website.

<http://web.worldbank.org/WBSITE/EXTERNAL/TOPICS/EXTURBANDEVELOPMENT/EXTMF/0,,contentMDK:20202920~menuPK:429320~pagePK:148956~piPK:216618~theSitePK:341201,00.html>;  
[http://www.lwua.gov.ph/primer/primer\\_index.htm](http://www.lwua.gov.ph/primer/primer_index.htm); [www.inca.co.za](http://www.inca.co.za)

At this stage, the applicability for accessing municipal credit markets may be limited to small towns; however, using the principle of aggregation, small towns located in countries with viable governance and financial frameworks may be able to obtain finance for water supply and sanitation, as well as other infrastructure investments.

## 5. Preliminary findings

The finance gap to achieve the MDGs for water supply and sanitation has been quantified at a global level, and at a country level using the urban/rural dichotomy. This presents a challenge for small towns, which fall in between these, and yet represent over a third of the population in Africa and Asia. As most of the constraints related with accessing finance are related to governance and capacity building at sub-sovereign level (e.g. districts and municipalities), the finance gap may be even greater.

### **There is demand!**

The need – and demand – for water supply and sanitation in small towns is growing, as these serve either as extensions to the capital city, or they are epicenters of rural migration. It is necessary for governments to pay greater attention to the support of small urban centers, as they represent a relatively large and important market. The constraints facing small towns should be considered an opportunity by governments and donors to test innovative mechanisms that may have broader applications, whether in other small towns, or larger urban areas. Further, strengthening the potential for innovative finance at a small town level would strongly complement efforts to strengthen local capital market development and involvement of domestic commercial banks, as well as industry and commercial business in the water sector.

These interventions, which cover both hardware and software components, will require considerable grant financing, in line with the learning by doing approach advocated by the MDG Task Force on Water Supply and Sanitation. For the grant funding to be catalytic, donors should consider the range of stakeholders to water sector infrastructure investments, as explored in this paper, to determine how their grant funding could attract more finance to add value to the initial project. Importantly, finance mechanisms should be applied where they are best suited. The ultimate goal is to achieve successful – and sustainable – water supply and sanitation service delivery for the poor.

### **From community finance to scale**

Small towns vary widely in their characteristics, and require tailored solutions to meet the specific needs of the communities involved. Where grants and concessional sovereign loans could be considered as a 'standard issue', the notion of innovative finance suggests a wide range of possibilities, not all of which have been put to practice yet. This creates the possibility for innovation to address different financing barriers and to test approaches with a scope for scaling up.

Given the particular nature of small towns, water and sanitation projects should adopt a phased approach that is based on effective demand (willingness and ability to pay) and the service provider's current capabilities, rather than on population growth projections and expectations of management improvements. This way, investments could match actual demand, minimizing the gap between a system's costs and revenues. This helps to improve cash flow and the financial health of a service provider. In areas with a high population growth rate, or where the pressures of urbanization are clear, attention should be paid as early as possible to financing wastewater and drainage systems.

### **Innovative finance is not a panacea**

Just as traditional finance mechanisms contributed to high debt levels in developing countries without substantial poverty reduction, innovative finance mechanisms should not be considered a panacea for development assistance. Innovative finance cannot transform a poorly planned or managed project into a good one; nor can it transform a poorly managed utility into a well-managed one. It can, however, help to address some of the different types of constraints that hinder both public and private sector investment, provided that these are identified, and quantified as risk.

Non-financial measures are many times more critical than increasing finance. For instance, the illegal status of peri-urban areas is a key barrier for SSIPs to obtain credit and improve their services. Likewise, lump-sum connection costs are still one of the key barriers for increasing coverage to the poorest in urban areas. Loans will need to be repaid, with interest, in many of the mechanisms described in this paper, either through the tax system or user fees. If an effective collection system is not in place, then their effectiveness is doomed from the start.

### **Community savings and user fees**

Financing needs should not be confused with weak management. Utilities and small-scale private providers should strive to be self-sustaining, setting appropriate tariffs with attention to willingness and ability to pay and reducing operation and maintenance costs by reducing water losses. Where there is a financing gap, small towns should be encouraged and supported to develop strategies to tap domestic finance. The financing strategy should complement a planning strategy that includes core stakeholders in both processes, and links with national policy frameworks. Sustainable service delivery for small towns requires that a project's financing structure be integrated with empowerment and participation by the beneficiary community. This means that the linkages between project design, planning, construction, and financing activities are understood by decision-makers and stakeholders, and communicated clearly to users.

### **Grants: Transaction costs and scale**

When considering grant finance, the key innovation is in *how* the funding is used. Here, innovation means moving beyond a model where donors finance projects to one where governments and donor grant funding is used to create an enabling environment for further investment and reform, whether at central or sub-sovereign levels. Where grants do support projects, these are performance-based, designed to trigger pro-poor outcomes, such as increased connections to water networks.

As seen in the examples presented in this paper, innovation can occur in many ways, and can involve different groups of stakeholders. Efforts to 'test' new finance mechanisms, and scale up successful approaches, will undoubtedly require substantial donor finance and attention in the near term. However, direct funding for innovative finance at the level of small towns may be unrealistic for many donors, as the transaction costs are too high. Instead, there is a risk that to support small towns, large, broadly scoped 'pilot' projects funded through ODA will emerge, which will be over-designed and neither replicable or scalable, and whose success would be more a factor of funding volumes and consultants involved rather than real community ownership and financial sustainability principles. ODA efforts in small towns should instead strive to be scalable in the future without substantial, and additional, ODA. By contrast, donors can support the creation of incentives and frameworks if they coordinate and tailor their funding, promoting a blending some of the financing mechanism described in this article with a common objective.

### **Loans, economies of scale and expanding beyond traditional stakeholder roles**

When considering debt mechanisms, the key innovation appears to be in determining *who* accesses debt, or how to stimulate the use of loans by and from all stakeholders, including users, NGOs, central and sub-sovereign governments, utilities, financial intermediaries and SSIPs. Other financial mechanisms, including equity, guarantees, and special purpose funds are important, in the sense that they deepen the impact and potential for use of debt mechanisms.

Small urban centers that are located near primary cities may benefit from partnership or participation with the larger urban utility, to gain technical and administrative skills, and potentially to gain access to finance for localized systems. Likewise, these centers may also benefit through contracts with larger utilities in which the utility provides bulk water points, a practice that can strengthen local small-scale providers.

Notably, most primary cities have concession contracts with exclusivity clauses, which crowd out these smaller operators. However, with the increased attention that is being paid to the beneficial role which small-scale providers can play, there may be additional entry points to 'broker' contracts between providers, or associations of providers, and utilities or larger municipal governments.

Small town economies often support both small-scale industry and commercial sectors that are often left out of discussions about water supply and sanitation infrastructure. There is scope for engaging with these businesses to support investments, particularly for sanitation and drainage, given the potential positive benefits to their business.

For all of the above, it is essential to assess actual needs, specify the objectives to be achieved, calculate how much finance is needed, and how it can best be obtained. Transparency throughout the process is essential, particularly as different stakeholders have different incentives – for example, potential beneficiaries of a project, such as private companies and consultants, may have a vested interest to see that the largest possible estimate of investment need is used, rather than what is the most feasible for the beneficiary community to bear, in terms of financial and technical capacity.

**Micro-credit, micro-finance and pooled finance: Connection costs and maintenance expenses to be addressed as part of financing strategy**

A shift in thinking is required to break down the notion that an "investor" or "banker" wears a tie and a starched shirt. Rural women are bankers every time they provide loans through savings groups. A community or small town government can be an investor in a pooled fund. NGOs can provide subsidies on principles of cost recovery. The notion that finance is "provided" detracts from the reality that for innovation to occur, everybody can be a provider and beneficiary of finance.

The PRSP, MTEF, and sector investment planning processes are intended to identify activities, budget for them, and identify funding sources for them. While the notion that subsidies for connection costs can have definite pro-poor impacts is well understood, and increasingly being applied, the challenges of operations and maintenance expenses, coupled with weak tariff policies, continue to be a major hurdle, particularly for smaller utilities with high fixed costs. Thus, a financing strategy for small towns should include some level of engagement with key stakeholders – including the business community as well as residential, government, and NGOs – to discuss and develop tangible ideas for how connection costs as well as recurrent costs can be recovered, to the extent possible, using locally-sourced finance.

An increasing number of micro-finance institutions are not the result of NGOs created to serve the poor, but rather existing institutions (mostly banks) that are seeking new clients among the low-income segments of the financial markets, which were previously seen as un-bankable. This is stimulating competition and leading to breakthroughs in scale and depth of outreach, mainly in Asia. Innovations include strategic alliances with NGOs or companies offering complementary services such as business skills, water supply and sanitation, and health. Since the late 1990s, the microfinance sector has become more diverse, with recent entrance of several private mainstream commercial banks, finance companies, insurance companies and NGOs that have become regulated micro-finance institutions. This has also led to changes in banking regulations to fit the needs of microfinance. However, much of the success of microfinance institutions still has to be realized in Sub-Saharan Africa.

**New lenses for existing financing mechanisms: Guarantees, equity and debt swaps**

Some of the principles of innovative financing that are being tested in more emerging markets, and geared towards international investment, have applications in developing countries at a grass roots level. The concept of a guarantee to hedge against currency risk, for example, can be 'miniaturized' to support connection to local networks; design-build-lease contracts, often suggesting large-scale infrastructure, can be used successfully in small towns where a competitive market for contractors exists. International finance institutions may be more interested in investing through intermediate funds of various kinds that can spread out risk to investor. The complexity of international deals with many components should not prevent new thinking that applies the core principles of assigning risk in different ways for projects of smaller size and scale.

### **Local capital markets**

The development of local capital markets to finance water sector infrastructure (among other things) is widely seen as a means to address the dual challenges of an overly liquid financial sector (in most countries), and the currency risks that hinder investment into the water sector. One advantage of using local capital markets for loans is that there is no risk from currency devaluation, as the transaction is entirely in local currency, from the denomination of the loan between the bank and the service provider, to the taxes and user fees, which are paid between the users and the service provider. A perhaps more subtle advantage to supporting locally financed solutions is that whereas many loans from IFIs require some level of private sector participation as a conditionality, lenders in a bond market do not impose conditions on service delivery. However, in order to be able to attract finance through domestic markets, local authorities and water utilities will need to prove their worth, with strong financial management and corporate governance.

In most countries lagging the most in progress to achieve the MDGs, local capital markets are not likely available to support water sector infrastructure investments. Water sector specialists should be on the lookout, however, for projects and activities relating to financial sector strengthening, supported by donor agencies, to determine if there are any opportunities to pilot, or learn by doing, through a broader reform process.

### **Lack of information and dissemination**

While there has been a great deal of activity in recent years within the donor community to create new initiatives and programs to support domestic private sector initiatives and innovative finance approaches, there is limited awareness and understanding at international, country or regional level about these activities. A recent consultancy,<sup>20</sup> tasked with understanding the scope for innovative finance in ACP countries, found that in several countries, including Mozambique, Kenya, Uganda, Ghana and Senegal, only a very select few outside the international development community were acquainted with the different programs working to develop innovations, nor were they acquainted with different finance instruments available. Even amongst some bilateral donors expressed a lack of awareness. This suggests an information and dissemination gap between the financial and the water and sanitation sectors.

### **Topics for further action and research**

This paper has sought to illustrate the ways in which innovative finance can be applied to meet the water and sanitation challenges facing small towns. Notably, the literature on small towns is limited, although it is growing thanks to programs like the World Bank Town Water Supply and Sanitation Initiative. With the increased attention towards domestic financial solutions, domestic financial markets, and small-scale private service providers, there is a real opportunity to understand financing opportunities for this 'gray' area. With this in mind, the following are questions for further research:

- What are the real impacts of the financing mechanisms explored in this paper, in terms of long-term viability of sustainable water and sanitation service provision, and poverty reduction? Are some mechanisms more successful than others? Under what conditions?
- Do some finance mechanisms lend themselves better than others to scaling up at a national level? Do others achieve greater poverty reduction over time?
- In most small towns, the poorest are not connected and therefore may benefit little from public subsidies for water or sanitation. Given this situation, how much do the poor benefit from municipal expenditures?
- How can microfinance institutions in Sub-Saharan Africa increase their outreach to the poorest and product diversification (for the water and sanitation sector) to be as successful as their Asian counterparts?
- What is the nature of the demand for credit from SSIPs and what is needed to improve their access to credit?
- What are the minimum conditions for successful tapping of domestic finance, at the user, sub-sovereign, and sovereign levels?
- What processes work best to achieve the pro-poor public-private partnerships required for the development and use of some of the financing mechanisms described in this paper?

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<sup>20</sup> COWI Presentation, Stockholm Water Week 2005.

## Glossary

This section is meant to try to bridge the jargon between the water sector and the finance sector.<sup>21</sup>

Term	Definition
Ability to pay	A measure of whether individuals or communities are able to pay for services, given levels of unemployment, other indicators of poverty, and social capital. See also “willingness to pay”.
Absorption capacity	A term which is used when there is a perceived limit to “implementation” and funds are left unspent.
Bonds	A method of borrowing used by private companies, governments or municipalities consisting of the issue of fixed-interest securities, repayable on a specified date. Certain government bonds have no fixed redemption date, and can be sold at their prevailing market price.
Capital costs	Those costs necessary to ensure that the system’s assets (e.g., an aquifer, hand pump, distribution mains, pumping stations, etc.) achieve continued quality and continuity of service in the present and the future, represented as the costs of replacing those assets in a given year (for above-ground, or short-term assets), and using other accounting provisions (including historic cost and depreciation methods) for longer-term assets, such as aquifers or dams.
Cash flow	The amount of cash a company generates and uses during a period, calculated by adding non-cash charges (such as depreciation) to the net income after taxes. Can be used as an indication of a company’s financial strength. Having ample cash on hand will ensure that creditors, employees, and others can be paid on time.
Collateral	Properties or assets that are offered to secure a loan or other credit. Collateral becomes subject to seizure on default. It is a form of security to the lender in case the borrower fails to pay back the loan.
Concessional loans	A loan that is made at more favorable terms that could be obtained commercially. A loan granted to the poorest countries. Such loans have longer repayment periods and lower interest rates than standard loans.
Credit risk assessment	The chance that an investment’s actual return will be different than expected. This includes the possibility of losing some or all of the original investment. It is usually measured using the historical returns or average returns for a specific investment.
Debt/equity swaps	A refinancing deal in which a debt holder gets an equity position in exchange for cancellation of the debt. There are several reasons why a company may want to swap debt for equity. For example, a firm may be in financial trouble and a debt/equity swap could help avoid bankruptcy, or the company may want to change capital structure to take advantage of current stock valuation.
Due diligence	An investigation or audit of a potential investment. Due diligence serves to confirm all material facts in regards to a sale.
Equity	Equity is a term whose meaning depends very much on the context. In general, you can think of equity as ownership in any asset after all debts associated with that asset are paid off. For example, a car or house with no outstanding debt is considered the owner’s equity since he or she can readily sell the items for cash. Stocks are equity because they represent ownership of a company, whereas bonds are classified as debt because they represent an obligation to pay and not ownership of assets.
Grant financing	Transfers made in cash, goods or services for which no repayment is required.
Guarantee	Contract by a third party C to underwrite a financial commitment entered into by A to B. Used by national governments to reduce the risks of borrowing and bond issues by their sub-sovereign bodies, and by international agencies to increase the creditworthiness of developing country institutions and to support specific projects within them. Common types of guarantees are Political Risk Insurance, Partial Credit Guarantees, Partial Risk Guarantees and Participations.

<sup>21</sup> Sources: Cardone and Fonseca, 2004; World Water Council and Investopedia



Interest rate	The monthly effective rate paid (or received if you are a creditor) on borrowed money. Expressed as a percentage of the sum borrowed. Borrowing \$1,000 at a 6% interest rate means that you would pay \$60 in interest
IFIs	Generic name given to all financial institutions operating on an international level, ranging from development banks, such as the World Bank and Asian Development Bank (ADB), and monetary authorities, such as the IMF.
Loan	When a lender gives money or property to a borrower, and the borrower agrees to return the property or repay the borrowed money along with interest, at a predetermined date in the future.
Local capital market	Some larger countries have well established local capital markets (India, China, Brazil, South Africa...), able to satisfy a good part of local borrowing needs. Funds raised on the local capital market immune the borrower or investor to devaluation risk. These markets typically offer short-term loans, and need to evolve to satisfy the needs of water sector.
Micro finance mechanisms	Microfinance provides access to lump sums and/or saving small amounts of money by beneficiaries who are excluded from formal sector financial institutions because of their low asset level, subsistence-level activities and the high costs involved in lending. Key characteristics of microfinance institutions are that they are local level operations that rely upon social and 'solidarity' economy principles in order to enhance the mobilization of financial resources.
Export funds	The sale of exports results in the earning of foreign exchange for the country and credits on the balance of payments accounts.
MTEF	Medium-Term Expenditure Framework Reflects medium-term spending priorities of the government that will have an impact on the poor, and is consistent with overall national objectives as identified in the Poverty Reduction Strategy.
ODA	Official Development Assistance: the formal term for "aid". Most of this is of the bilateral variety, namely, government-to-government transfers from OECD member states to developing countries. Some ODA is provided by multilateral sources such as the United Nations, the European Development Fund and special funds of the World Bank and elsewhere. To qualify as ODA, the finance has to include a minimum 25% grant element.
Operation and maintenance costs	Generally, the costs of daily operations. Includes employment costs, cost of materials, power costs, and any costs of hired or contracted services.
Output Based Aid	OBA is a strategy for supporting the delivery of basic services where payment is linked to service delivery. The OBA subsidies are explicit and they are performance based, meaning that they are paid when the service provider is accomplishing stated and agreed targets.
Pooled finance	Collaboration amongst different borrowers to obtain better financial terms on loans or bond issues. Used by a group of municipalities, each of which is too small to raise finance on affordable terms, but which collectively can achieve critical mass. Collective security for a loan or bond can be provided either by creating a reserve fund or by mutual underwriting of each party's debt (joint and several liabilities).
Poverty Reduction Strategy Papers	Poverty Reduction Strategies are prepared by developing country governments in collaboration with the World Bank and International Monetary Fund as well as civil society and development partners. These documents describe the country's macroeconomic, structural and social policies and programs to promote growth and reduce poverty, as well as associated external financing needs and major sources of financing.

A poor country must produce a PRSP before it can qualify for debt relief and concessional loans from the IMF and World Bank. PRSPs are papers that outline a country's economic and social initiatives for reducing poverty. They are supposedly formulated in consultation between poor country governments, poor country civil society and the IMF and World Bank. However, PRSPs have to be endorsed by the IMF and World Bank, and have typically followed the same macroeconomic policies seen throughout the period of structural adjustment.

Revolving fund	Special financing bodies that make loans to many borrowers from an initial supply of lending capital, and then use the repayments from those borrowers to make additional loans, thus "revolving" or reusing their capital.
Sector Investment Program (SIP), or Swap (donor funding)	A sector wide approach is a process that entails all significant donor funding for a sector supporting a single, comprehensive sector policy and expenditure program, consistent with a sound macro-economic framework, under recipient government leadership. Donor support for a sector wide approach can take any form, including project aid, technical assistance or budgetary support, although there should be a commitment to progressive reliance on government procedures to disburse and account for all funds as these procedures are strengthened. The Swap is an approach rather than a blueprint, flexible and adaptable to a changing environment.
Sovereign level	National level
Sovereign risk	Financing made with the national government as contracting party. This is normally less risky than dealing with sub-sovereign bodies or local private companies (depending on the creditworthiness of these bodies). However, lenders are exposed to such acts of government as expropriation, transfer restriction, contractual and regulatory interference, breach of contract, devaluation and sovereign default, as well as political instability and civil commotion. Some of these risks can be insured, e.g. through the Multilateral Investment Guarantee Agency of the World Bank.
Sub-sovereign level	Sub-national level: provincial, district or municipal level
Willingness to pay	An expression of demand for a service. Some methods are used to determine willingness to pay: (1) Actual payment habit studies; (2) Initial contribution to investment; (3) Actual behavior studies.

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