

Financing water: where will the funding for enterprise come from?

**NOTES TO ACCOMPANY A TALK AT THE WATER ENTERPRISE
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One: water as a spectrum

Water is not a homogeneous sector: it is more accurate to view it as a spectrum. Some people prefer to talk of a water cycle. Some approach the topic through the lens of water services (typically to households, or farmers), others think more naturally in terms of water resources. In fact, there are other aspects of water planning and management that are sometimes described as “soft” or “integrative” functions (Box 1).



All these aspects of the water spectrum need to be in place and properly financed, since water in its different facets hangs or falls together.

The picture is more complicated when we take account of different regions, at different levels of development, with different demographic situations:

Box 2. Categories for a typology of water services

Level of development (developed, emerging, low-income)
Extent of service coverage (water, sanitation, wastewater treatment)
Rate of population growth & urbanisation
Balance of formal & informal service provision
Rural or urban
Access to finance (internal, external)
“affordability”

Overlaying these categories onto those in Box 1 produces a complex mosaic

In accordance with the main focus of this WEF, I will concentrate on the *services* end of the water spectrum.

Two: Financing water: what is required?

The two tables below illustrate the potential size of investment requirements over the several decades to come.

Table 4.3 Annual capital requirements for water supply and wastewater services and water financing gaps, by region, 2006-25				
(US\$ billions)				
Region	Capital needed	Low gap	Medium gap	High gap
Eastern Europe, Caucasus and Central Asia	28.1-40.5	13.4	20.0	26.1
North America	23.9-46.8	3.3	4.9	21.4
Latin America	4.3-6.5	2.9	4.0	5.1
Developed Asia and China	38.2-51.4	29.5	32.9	36.5
Rest of world	14.3-22.6	18.5	22.4	26.1
Total	92.4-148.0	67.5	84.2	115.2

Note: The gaps refer to the difference in projected investment needs for three different estimates of their size and existing sources of revenue from tariffs, official development assistance and government budgets and loans.
Source: Owen 2006.

Source: David Lloyd Owen estimates, cited in *UN World Water Development Report, 2009*

Table 1.1. Estimated average annual world infrastructure expenditure (additions and renewal) for selected sectors, 2000-30, in USD Bn and as a percentage of world GDP

Type of infrastructure	2000-10	Approximate % of world GDP	2010-20	Approximate % of world GDP	2020-30	Approximate % of world GDP
Road	220	0.38	245	0.32	292	0.29
Rail	49	0.09	54	0.07	58	0.06
Telecoms ¹	654	1.14	646	0.85	171	0.17
Electricity ²	127	0.22	180	0.24	241	0.24
Water ^{1, 3}	576	1.01	772	1.01	1 037	1.03

1. Estimates apply to the years 2005, 2015 and 2025.

2. Transmission and distribution only.

3. Only OECD countries, Russia, China, India and Brazil are considered here.

Source: OECD (2006), Infrastructure to 2030 – Telecommunications, Land Transport, Water and Electricity, OECD, Paris

Some key basic distinctions:

- between recurrent and capital items: recurrent items tend to be funded through government budgets and cash flow from tariffs; capital items can attract external finance more easily. Recurrent items, particularly maintenance, tend to be under-funded, with priority going to wages over materials and equipment.
- between hardware (equipment and infrastructure) and “soft” items. Hardware is easier to finance; soft items normally rely on budgets and cash flow, and are easier to postpone and overlook.
- between investment in new capacity, e.g. expansion of networks to increase coverage, and the repair and rehabilitation of existing infrastructure. Developing and emerging economies need both kinds, developed countries face a huge cost of modernisation.

Water is widely under-funded. Much infrastructure is hidden, many governments give it low priority, maintenance is easy to postpone – so it is. (Box 1.1.)

Box 1.1. The burden of legacy in EECCA countries

In *Armenia* the present infrastructure is over-sized, needs renovation and much more maintenance. There is a high cost of operating the system, involving excessive volumes of water being distributed, much of it lost and wasted. There is great scope for efficiency savings. There is an urgent need to downscale and optimize the present infrastructure. Investment needed to renovate the existing infrastructure is much greater than that required to extend it to those without services.

In *Moldova* the current level of financing is insufficient even to maintain assets at their present low operational levels or to provide adequate levels of service. The financing deficit is manifested in poor water quality, regular daily shortages, water-related morbidity, pollution of surface waters, etc. The baseline scenario used in the new Financing Strategy aims at halting deterioration and providing modest improvements. Even this unambitious aim would require increased user charges, a sizeable increase in budgetary support, and more international finance.

In *Georgia* there has been a clear deterioration in infrastructure and services, causing growing public health hazards. Even to preserve the current level of services would require major reforms, since the baseline situation shows a financing gap. These reforms would include improving the collection rate of revenue owed, an expansion of metering, better control of leakage, increasing budgetary transfers, and raising household charges to the highest affordable level.

Source: Strategic financial planning for water supply and sanitation. OECD, 2009

Rapid changes can be expected in the configuration of networks, technology, processes, and methods of water use. Depending on circumstances, the changes will be driven by growing water scarcity, higher tariffs, environmental regulations, official *fiat*, financial economies, opportunities for profit, etc. Innovation can be expected in:

- Re-use and recycling;
- Desalination;
- Wastewater treatment/value from wastewater;
- Water-efficient use by industry, agriculture and households;
- Smart meters;
- Methods of supplying services to informal settlements
- Etc.

Three: sources of funds

The “3Ts” (tariffs, taxes and – where this is available – aid transfers) are the basis of sustainable financing, and are the means of leveraging supplementary sources of repayable loans. A variety of facilities and hybrid forms of finance exist to effect this leveraging.

Table 1. Revenues, funding sources and facilities

Basic sources of revenue	Repayable funding sources	Facilities & hybrids
The “3Ts” ➤ Tariffs & other user charges ➤ taxation ➤ Transfers (ODA, charitable schemes) Plus: ➤ User funds, cash, materials, labour	➤ Loans (commercial, IFI, concessional, microfinance) ➤ Bonds ➤ Equity ➤ Islamic finance (<i>sukuk</i>)	➤ Guarantees ➤ insurance ➤ B loans ➤ Loan subsidies ➤ Co-financing ➤ Output-Based Aid ➤ Convertible loans (debt-equity swaps) ➤ Social investment & blended-value models ➤ Challenge funds ➤ Shadow credit ratings ➤ Bond pooling ➤ Project preparation & development facilities ➤ Etc.

Four. Topical thoughts

Messages from Istanbul World Water Forum, March 2009:

World Bank:

- Best hope for getting more finance for WSS is greater efficiency.
- Rate of cost-recovery in WSS fell in 2007/8 for the first time recently.
- The financial crisis could set back sector reform by a decade.

- For many poorer countries IFIs are the main source of funds.
- Bond issuance by developed countries is now crowding out ldc bonds and loans.
- The financial crisis will probably lead to an increase in the use of sovereign guarantees
- The WB has developed an “infrastructure platform” in response to crisis, to stabilise existing infrastructure, rescue promising projects, support PPP in new ways, and sustain the country project pipeline. WB will have capital resources to triple lending to middle income countries.
- Opportunity to include water infrastructure in fiscal stimulus packages. 12+ countries are already doing this.

European Investment Bank:

- Make WSS a low risk sector in order to attract money looking for a safe outlet. Would require housekeeping measures, greater credibility and efficiency in order to establish sound cash flow prospects.
- WSS faces bankruptcy. Needs stronger advocacy of economic benefits of water.
- We should aim at more “solidarity” between the present and future generations (with implications for pricing, funding and maintaining existing assets) , and between the served and the unserved populations.

OECD:

- Give more importance to the 3Ts and the balance between them.
- Sell reforms harder (reforms don't cost money, but may be more difficult for politicians).
- Stress Sustainable Cost Recovery, not Full Cost Recovery.
- Water projects in current financial climate can offer a double dividend (economic stimulus plus large inherent benefits).
- Don't be satisfied with getting the attention of Finance Ministers – aim at the top at Prime Ministers.
- “A pity to waste a good crisis” – crisis as opportunity for reforms and a fresh start.

IFC:

- \$200 bn of PSP projects have been postponed or have become “at risk”, 15-20% of which are in WSS.
- Liquidity is scarce.
- Problems of international banks have had a knock-on to local banks too.
- Many innovative deals are at risk.
- WB/IFC setting up a suite of crisis response facilities.

Suez

- Municipalities relying on bonds will have been hit by the difficulties of AIG, the largest global bond insurer rescued from insolvency by US Govt.
- Willingness To Pay for water is weakening in recession.

Key References

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