

The past, present and future of finance for investment in water systems

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Summary

- Advantages of public finance
- Africa: investing through public finance
- Affordability of household connections
- Countries build household connections
- Two models
- Development and taxation

Historic advantages of public finance

- The great majority of investment in water and sanitation services in high income countries has been carried out by the public sector using public finance raised through taxation, or loans raised on the security of this flow of taxation.
 - In Europe, and North America, and Japan
 - Even in UK and France
- Economic advantages of public finance:
 - lower interest rates (or 0 if direct spend from taxes)
 - Crucial because water is so capital-intensive
 - Health benefits social not private, so consumers underspend

Financial flows to water and sanitation in sub-saharan Africa (\$billions, annually)

	O&M	Capital expenditure			
	Public sector	Public sector	Aid (OECD)	(Aid (non-OECD)	Private sector
Sub-saharan Africa: total	3.06	1.06	1.23	0.16	0.01
• <i>Low-income: fragile</i>	0.13	0.03	0.11	0.02	0.00
• <i>Low-income: non-fragile</i>	0.30	0.25	0.78	0.05	0.00
• <i>Middle income</i>	2.17	0.15	0.10	0.01	0.00
• <i>Resource rich</i>	0.15	0.72	0.24	0.08	0.01

Public investment in infrastructure in Africa

(source: World Bank/AFD Africa's Infrastructure 2010)

- “spending on infrastructure in Africa is higher than previously thought, amounting to \$45 billion per year”
- “two-thirds of this overall spending is domestically sourced: \$30 billion of annual spending is financed by the African taxpayer and infrastructure user, and a further \$15 billion is from external sources”
- “The public sector remains the dominant source of finance for water, energy, and transport in all but the fragile states”
- “Public investment is largely tax financed and executed through central government budgets, whereas the operating and maintenance expenditure is largely financed from user charges and executed through state owned enterprises.”
- Trend will continue post-crisis:
 - developing countries all growing at 5-10% per annum
 - OECD: African public spending in 2011 will be 10% higher than in 2008

Required levels of spending on water and sanitation infrastructure, % of GDP

	OECD range	PSIRU range
Low income countries	0.71% - 6.30%	0.64% - 6.29%
Middle income countries	0.54% - 2.60%	0.11% - 0.89%
High income countries	0.35% - 1.20%	-

Sources: Cashman and Ashley 2008, Hall and Lobina 2008

Costs of meeting MDGs in 10 years with household water and sanitation connections (Source: Hall and Lobina 2008)

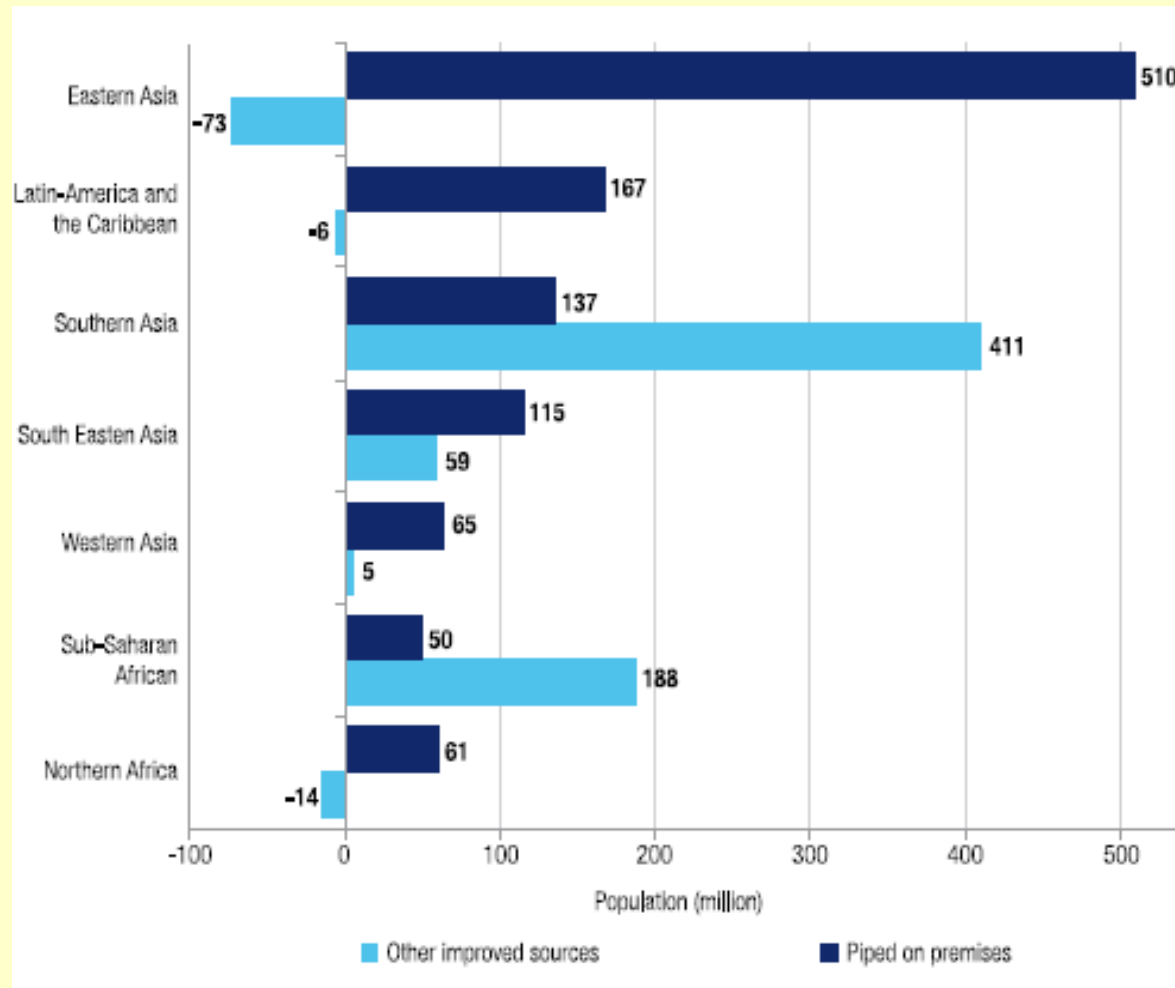
	Income group	Annual cost \$m.	Annual cost as %GDP
China	ML	7878	0.30
India	L	5764	0.64
Indonesia	ML	2291	0.73
Brazil	ML	1881	0.21
Nigeria	L	1364	1.48
Philippines	ML	1069	0.89
Pakistan	L	1000	0.82
Bangladesh	L	855	1.22
Iran	ML	790	0.38
Congo DR	L	485	6.29
Viet Nam	L	450	0.77
Argentina	MU	403	0.20
Thailand	ML	379	0.20
Sudan	L	352	1.18
Egypt	ML	340	0.33
Venezuela	MU	310	0.19
Ethiopia	L	306	2.37
Malaysia	MU	299	0.21
			as % of <i>global</i> GDP
All developing countries		34900	0.08%

Affordability at national level

- The cost of completing household connections for water and sewerage in 10 years can be met by using less than a quarter of annual growth, in nearly all countries.
 - This still leaves ample room for investment in other infrastructure such as electricity, as well as continued growth of consumer spending.
- The requisite levels are thus not only affordable, they are affordable for the great majority of countries *out of national economic resources alone, without need for government borrowing, and even if there were no assistance from donors at all.*

Population gaining piped household connections or 'improved' sources 1990-2008

Source: JMP 2010 Progress on Sanitation and Drinking-water: 2010 Update WHO/UNICEF



Household connections central

- “Between 1990 and 2008, more than 1.2 billion people worldwide gained access to a piped connection on premises. This is more than twice the population that gained access to other improved drinking-water sources.” (JMP 2010)
- 73% of the urban population of developing countries gets piped water from a household connection
 - But only 31% of rural inhabitants
 - in sub-saharan Africa, 35% of urban population (5% of rural population)
- Household connections have greater health benefits (Gunter and Fink 2010)
 - “Private [i.e. household] access to any water technology decreases the relative likelihood of diarrhoea by about 14%, whereas the odds of diarrhoea are reduced by only about 7% if the household uses a public pipe and/or a public well/borehole”
 - “There is no significant impact of access to a public latrine/flush toilet on child diarrhoea, and the effect on child mortality is only 3.3%, whereas private sanitation facilities reduce the odds of diarrhoea by 10% and the likelihood of dying before the age of 5 by 13%” .

Divergence from reality

- OECD: “.....structural reforms are needed to improve the sector’s revenue generation potential so as to *fill* the financing gap.”
- But:
 - there is not a great financing gap: infrastructure is being built – by national governments, using public finance.
 - Growth rates mean that adequate economic resources will be available to build more, using public finance
 - there is a definable ‘gap’ in the poorest countries which could be filled by aid – but not, certainly, by private capital
 - History confirms that very little investment in water and sanitation has ever been financed this way.
- The OECD advice is therefore dangerously misleading.

Forecasts outstripped by reality

- World Water Development Report 2006
 - “in the next five to ten years, it will not be possible for the provision deficiencies in most urban areas to be addressed by the conventional model of a water utility extending piped water supplies and sewers to individual households.” (p.419)
- Wrong.
 - Water MDGs are being met
 - household connections are the main method

Two models: donor/private/improved vs. National/public/household connections

	DONOR MODEL	NATIONAL MODEL
Finance	Private + aid	Public + aid
Operation	Private	Public
Access type	Improved	Household connection
Leading role	Donors, banks	National governments
Focus	Rural	Urban

Development and role of the state

- Explicit recognition of:
 - role of state in development and economic policy
 - public finance for investment in infrastructure
- Wider economic experience
 - economic crisis required rescue by public finance
 - Role of infrastructure investment in China growth
- Social democratic governments in Latin America, India
- New views in Africa:
 - “...the crisis should be grasped as a turning point in the development path of developing countries, particularly here in Africa.... it is necessary to reconsider the role of the state.” (Louis Kasekende, Chief Economist of the African Development Bank , 2009)
 - “Our countries will not have the necessary money without adequate tax collections The money begged for or borrowed from outside is too little, very unreliable and too slow in coming to be able to help us in dealing with infrastructure.” (President Museveni of Uganda July 2010)



"our tax collectors are like honey bees, collecting nectar from the flowers without disturbing them, but spreading their pollen so that all flowers can thrive and bear fruit"

Pranab Mukherjee, India's finance minister, budget speech, July 2009