

# Getting to boiling point

Turning up the heat on water and sanitation



**WaterAid – water for life**  
The international NGO  
dedicated exclusively to  
the provision of safe  
domestic water, sanitation  
and hygiene education to  
the world's poorest people



## A WaterAid report

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**“When the water starts boiling it is foolish to turn off the heat”.**

Nelson Mandela

The world's poorest people are still waiting for the water itself, let alone for it to boil. Since the 1980's Water Decade failed to secure water and sanitation for all the world's population, a procession of international reports and conferences has called for universal access to these services. But constant repetition of the fact that “water is life” has proved not to be enough. The performance of the water sector remains brutally inadequate: more than a billion people are still without safe water and 2.6 billion lack any way to dispose of their excrement in safety and with dignity.

These failures are undermining development: keeping children out of school, stopping adults pursuing their livelihoods, and denying many people good health and in some cases even life. This is the silent emergency affecting the world today. Unless the delivery of water and sanitation improves significantly the Millennium Development Goal (MDG) to halve world poverty by 2015 will be undermined.

To assist in moving from the “what” of policy to the “how” of action, WaterAid has sought the views of practitioners in the 14 countries where it works. Their perspectives on the day-to-day blockages actually preventing them from delivering new water and sanitation services have confirmed that much better use could and should be made of the money in the sector.

At the same time calculations of the numbers of people to be reached, the costs of the most basic approaches for doing so and current available resources have confirmed that most countries – 12 out of the 14 examined – need to invest more money if they are to have any chance of reaching their MDG targets for water and sanitation (to halve by 2015 the proportions of people without access to water and sanitation).

Better spending of all the money and bringing in new money are political common sense: for communities without safe water, getting access to such water is – almost without exception – their first priority. It is also development common sense: children and women in particular need to be free of the burdens of hauling water and of water-related diseases if they are to pursue their education and livelihoods. Where political and development agendas have come together, the power of politics to deliver new water and sanitation services has been clearly seen. How to improve the performance and resourcing of the water sector therefore comes down in the end to the question of whether there is the political will to do so.

**Prioritisation – putting water and sanitation at the heart of poverty reduction**

Water Ministry officials are the poor relations of Government, lacking any attention to what they are achieving and last in the queue for resources. But there are two compelling arguments why water supply and sanitation should be a priority of government.

Where poor people have a voice, they themselves assert the human right to safe water which governments have a duty to deliver. This was seen at its most effective in Uganda. Communities highlighted water as a top priority when they were consulted about their needs during the national poverty reduction planning process. Energetic civil society advocacy ensured that water was prioritised in the final plan. An additional 2.2 million people gained access to safe water in just three years.

The second key reason to prioritise water supply and sanitation is that without them people simply cannot escape poverty. Not having safe water and basic sanitation results in disease and increased infant mortality, while also holding back economic growth. The time spent collecting water keeps women from paid work and children from school. In Tanzania, 12% more children were found to attend school when safe water was available within 15 minutes rather than one hour from their home. In Nigeria, the government started to eradicate guinea worm when it realised that spending \$2m could recoup 30 million working days every year. Water and sanitation underpin development and without them the MDGs will not be met.

Becoming a priority of government is currently a challenge. However, the bigger challenge to financing basic water supply and sanitation provision is how to make the money perform better. Our research identifies a number of key concerns.

**Transparency – be open about what's going on**

Many citizens, even those working in the water sector, cannot gauge the full extent and effectiveness of their government's efforts to finance and provide water and sanitation services. Information on spending and its impact is often hard to get hold of, long out of date or inconsistent. In Madagascar even the ministry responsible for water supply finds it difficult to get hold of budget data from the Ministry of Finance. In Ethiopia the latest official expenditure data is for 1996/7. And coverage data in countries is disparate; for example in India and Tanzania coverage rates vary considerably between government reports. The weaknesses in data consistency and accuracy can lead to under-estimation of the scale of need and level of investments required.

A lack of transparency can also lead to unequal distribution of services, because it is not clear which areas have the greatest need. Some areas see repeated investment while others are ignored. Attention to monitoring performance and levels of investment in the sector and making this information more readily available enables civil society and parliaments to analyse such inequities and exert pressure to correct them.

### Equity – some for all not all for some

Not enough money is going to the places that need it most. This is happening at each level of decision making. Internationally, less than 40% of aid for water goes to those countries which are home to nearly 90% of the 1.1 billion people who don't have access to clean water. At national level, in Bangladesh for example, Dhaka's water utility has proposed spending \$1.5bn on its sewage system. That could be enough to meet water supply and sanitation targets for the whole country. Such inequitable distribution is evident in other countries too, and not just because data is lacking: political agendas also come into play. In Malawi, areas which are already well-served receive more resources while areas which are still unserved remain that way. Even the choice of technology can make a difference. In Tanzania investments in low cost technologies such as shallow-wells and springs are more equitable than investments in piped water supplies which disproportionately benefit the better off. Yet, donor assistance favours spending on pipes.

### Coordination – don't duplicate

District water officers and other local government officials get trapped in a maze of overlapping water and sanitation projects. Multiple funding and reporting streams – some channelled through central government, others going through provincial administrations or directly to communities – leave people tied to their desks writing applications and reports. This uncoordinated and unwieldy network of funding results in inequities and drains the capacity of public servants. Without unified reporting systems, breakdowns can go unnoticed for years in official data and so fail to have resources allocated for repairs.

### Capacity – give local government the money as well as the responsibility

Local administrative bodies are increasingly expected to shoulder newly decentralised responsibilities for water and sanitation without having the staff they need. The problem is made worse when the responsibilities are decentralised without simultaneous decentralisation of finances.

In Tanzania, for example, less than 10% of the total approved water expenditure in 2004/5 was spent through local authorities who have the responsibility for water supplies.

### Sustainability – the difference between success and failure

Installing the infrastructure is only the first step. Once built the water and sanitation systems have to keep working. Money has to be raised from users to finance repairs and routine maintenance. The bigger the system the greater the management challenge. Many big urban systems have suffered years of neglect, starved of investments. Bringing them back from the brink of collapse is now a huge challenge. Many past rural investments have completely collapsed. Spending on infrastructure must go hand in hand with building capacity for managing systems and sustaining them financially. It must involve women as they have strong interests in keeping systems working. Maintaining systems is a balancing act between keeping water affordable and meeting the running costs. Installing overly-sophisticated infrastructure which costs users a disproportionate amount of their cash income is a non-starter. It is equally a recipe for disaster to suppress charges below the costs of production. Getting this balance right is greatly influenced by the choice of technology.

### Privatisation – a pointless condition

Water sector officials at both national and local levels are wrestling with demands to draw in private sector participation. This has been put forward in the past decade by World Bank-led donors as a solution for developing countries' water needs. Results however have been mixed and international private companies themselves are now seeking alternative approaches. But some donors perversely still champion privatisation, making it a condition of aid. A more sensitive, context-determined approach is required. For example in Uganda the short-term contracting-out of the management of Kampala's ailing water utility dramatically improved coverage, collection and productivity. Public sector managers were then able to take these lessons to other urban areas as well as to make further improvements to Kampala's water supply.

### Spending, aid and debt – willing the means as well as the ends

Even where there is the political will to do so, governments can find their ability to act is constrained. Critical to Uganda's success was the fact that it had debt relief funds available to invest. But generally the water sector's share of available funds from national governments and donors is in decline:

dropping from 2.6% to 1.9% of direct UK aid between 1998/9 and 2002/3, for example and overall accounting for only 1% or so of developing country spending. In many countries debt relief has been slow to kick in and trivial in relation to overall debt with repayments still far outstripping the additional finance required for water and sanitation.

The money for water and sanitation is not going to come from the international capital markets either. Financial markets are now uninterested in water for the poorest countries many of which do not even have credit ratings. It is public finance that has to lead investment in these basic building blocks of development. The recent global falls in public finance going to water and sanitation have to be reversed.

The world's richest countries therefore need to do much more to deliver on their commitment to Millennium Development Goal 8 for a global partnership for development, addressing the special trade, debt and aid needs of the least developed countries.

### Conclusion – turning up the heat

The water sector needs to deliver much more and more quickly if the poverty reduction benefits of access to safe water and sanitation are to be secured by the target deadline of 2015. The sector needs to feel the heat of public scrutiny. That heat, allied with a better appreciation of water's role in reducing poverty, must generate the political will both to demand that the sector deliver and also to resource it to do so.

All countries' water sectors need to spend their money more effectively. Governments need to open up planning and monitoring processes to civil society

and development partners to ensure that expenditure is proportional to need; both in terms of geography and relative poverty. Responsibilities for water and sanitation should only be devolved to local government where associated budgets are also devolved. Water supply systems must be self-sustaining, balancing running and maintenance costs with affordability. Where the private sector offers real advantages in maintaining this balance they may have a role. However, it is public finance that has to lead investment in the sector. For most countries studied, this means doubling spending on water supply and sanitation.

Specifically in 2005 national governments and donors need to produce the plans for managing national water resources and to finance increases in access to safe water and sanitation. They must also agree coordination arrangements which avoid duplication of reporting systems and ensure efficient targeting of funds. From 2006/7 onwards water sector budgets must be fully disbursed and spent with the results then publicly reported.

These are not demands for new promises, they are simply what is required for water sector investments to conform with existing commitments – to the Millennium Development Goals or to donors' Rome Declaration on Harmonisation.

This report sets a baseline against which progress on these issues can be measured. Unless the sector's performance reaches higher standards in this way, the world's poorest people will remain trapped in poverty for want of their rights to safe water and sanitation.



#### CASE STUDY

**“Since the project we have had lots of changes,” says Sophie Zongo from Bayandi Palogo in Burkina Faso. “Without safe water the children were often ill which stopped them going to school. We took them to the clinic but sometimes didn't have the money to pay. We were so anxious that we sometimes felt ill ourselves. Now I hope that my children will grow up in good health, do well at school and get a job.**

**Before everyone had to go to the toilet in nature. The flies used to go into the faeces and come in the houses. They brought dirtiness and illness. Now the latrines are so close to our houses that even if you are ill you can use them. We feel better because our dignity is preserved, especially the women. We have learnt a lot about hygiene. We keep soap next to the latrine and wash our hands.”**



Poverty-reducing improvements in health, education and livelihoods rely on increases in access to safe water and sanitation.

To achieve the water and sanitation MDGs:

## Governments of developing countries need to:

- By the end of 2005, produce an investment and delivery plan for managing their water resources and achieving their water and sanitation targets, with a separate budget for sanitation.

This must be produced in partnership with the donor community and other water supply and sanitation stakeholders and reviewed annually. It should provide the means for greater co-ordination within the water and sanitation sector as well as delineate a separate sanitation budget.

- From 2006/7, devolve budgets to local governments with responsibility for water and sanitation where appropriate.

This can, for example, be achieved by setting up special purpose water and sanitation grants to local governments. Spending should be allocated proportionately to need to redress disparities in both geographic coverage and relative wealth.

- From 2006/7 publish an annual report on the performance of the water and sanitation sector.
- From 2005, enable and strengthen the participation of the principal stakeholders of the sector – the users and providers – in the planning, monitoring and review of the water and sanitation services.

This must include the establishment of consultative multi-stakeholder mechanisms and greater attention to the collection and use of information on sector performance. It will also require improvements in the transparency and accessibility of this information to the public.

## Governments giving aid need to:

- By the end of 2005, agree a mechanism for eradicating wasteful duplication in planning, funding and reporting systems between donors and recipient governments.

As a result there will be one monitoring system for water supply and sanitation outputs.

- From 2006/7, align their water supply and sanitation support with the government-led sector investment and delivery plans.

This will include harmonising their procurement and other operating practices with government policies in the sector.

- Ensure that they are meeting their millennium goal commitment of a partnership for development including providing 0.7% of GDP in aid by 2010 and closing finance gaps for water and sanitation especially in the least developed countries.

This will mean spending 70% of their water supply and sanitation aid on the countries with the greatest water and sanitation needs. These are most countries in sub-Saharan Africa, plus some in South and South-East Asia.

- From 2005, provide strategic assistance to the strengthening of civil society, media and parliamentary scrutiny of water and sanitation sector performance and financing.



## Baseline assessment of position on calls to action

Call to action	WaterAid countries		Comment
	With	Without	
National water sector investment and delivery plan	1	13	Some of the 13 have plans but, since they were not produced in partnership, donors are not aligned with them
Separate budget for sanitation	2	12	India and Uganda both have separate sanitation budget lines but both are considerably less than is needed
100% utilisation of water sector budgets	0	14	
Annual reports published on water sector performance	1	13	Uganda has a separate sector report. Other countries such as Zambia have only broader reports on PRSP progress covering water issues or one-off audit reports on the sector as in the 1998 Review by India's Accountant Generals of the States

## Major donor behaviour in WaterAid Countries

	WaterAid countries		Comment
	With	Without	
Unified single interaction with Government	3	11	This is broadly the case in Uganda. Some other countries – eg Ethiopia – have some donors working together but others remain outside the coordination mechanisms. NGOs are also likely to work “off-line”
Alignment with national water plans	2	12	Again this is broadly the case in Uganda
Partnership for development – providing 0.7% in ODA	0	7	For G7 countries only – overall they provided 0.21% of their wealth as ODA in 2003

## CASE STUDY

“I have no school. I would like to go but I am the only child at home so if I go to school there will be no one to help my parents. I have to fetch the water. I use the water here for drinking, bathing and washing my clothes. My parents always get sick with diarrhoea – I don't know why – but they have to go to hospital. I'm not happy using this water. Some people use it like a toilet.”

Ten year old **Bundaa Joseph**, Tanzania



- All World Governments signed up to the Millennium Development Goals of halving world poverty by 2015. Included in these are targets to halve the proportions of people without safe water and adequate sanitation by 2015
- In many regions these targets are off track, especially in Africa and for sanitation. Over 2.6 billion people – two-fifths of the world's population – do not have access to sanitation
- 384,000 people need to gain access to sanitation every single day to reach the Millennium Development targets – a 90% increase on performance since 1990
- 1.1 billion people – one person out of every six in the world – do not have access to safe water. 280,000 people need to gain access to safe water every single day to reach the Millennium Development target. This requires a 25% increase on performance since 1990
- 2.1 million children die every year from diarrhoea<sup>1</sup>. This is one in five of all child deaths under the age of five and means a child dies every 15 seconds from water-related diseases<sup>2</sup>
- 5.6 billion productive days are lost annually around the world due to diarrhoeal diseases<sup>3</sup>
- 443 million school days are lost annually worldwide due to diarrhoeal diseases
- Water and sanitation are prioritised in the poverty reduction plans and budgets of just two of the 30 countries where nearly 90% of the 1.1 billion people without safe water live<sup>3a</sup>
- Aid for water more than halved from 1995 to 2002 by when it was at its lowest in real terms since 1985
- Information on national water sector spending and performance may be non-existent or inconsistent, take years to emerge, be published only in foreign languages or in a very limited number of copies
- Spending is also not well-targeted within countries: projects may aid just 0.3% of the population, use technologies nearly 10 times more expensive than necessary, or improve services for a few rather than extending them to all
- Only one half or even fewer of water systems continue to work where the wrong technologies are used or where participation in projects is insufficient to ensure long-term community management capacity
- Lack of coordination in a country's water sector means there may be as many as nine different routes for funds to reach communities
- Funds made available by central government to the local authorities with the responsibility to provide water and sanitation services are usually worth less than \$1 per person per year
- Sub-Saharan Africa got just 0.001% of international private sector water investments between 1990 and 1997<sup>4</sup>. By contrast the local private sector may have constructed nearly 90% of waterpoints
- Water budgets are hardly ever fully spent. Utilisation rates range from 9-65% often because of delays in disbursements. Local authorities in the last month of the financial year can still be waiting for half of their budget to be released
- Annual spending on water and sanitation needs to double, from around \$14 billion to \$30 billion<sup>5</sup>
- This means there is a financing gap of \$16 billion a year. This amount is the equivalent to 15% of Europe's annual alcohol bill or only 0.002% of the world's \$1 trillion yearly military expenditures
- Less than 40% of aid for water goes to the 30 countries where nearly 90% of the 1.1 billion people without access to safe water live
- The total debt<sup>6</sup> of 52 indebted poor countries is \$375 billion. Poor countries spend less than 0.25% of their income on water supply and sanitation<sup>7</sup>

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## “When the water starts boiling it is foolish to turn off the heat”. Nelson Mandela

The world's poorest people would dearly like to agree with Nelson Mandela. But for them the water is far from boiling, it is not even available. The heat therefore needs to be turned up first on the water sector itself. Only a better performing sector will see everyone at last get access to the safe water which is their right.

More than one billion people live on less than \$1 a day. Some 1.1 billion people also lack access to safe water leaving women and children to spend hours each day in search of it. Over 100 million children are out of school, the majority of them girls. Over 2.6 billion people lack basic sanitation. Infant mortality rates are highest where diarrhoeal diseases are the biggest single killer. The Millennium Development Goals (MDGs) to halve world poverty therefore cannot be delivered without access to safe water and sanitation. But sanitation targets in particular are off-track, and in some places are even going backwards.

WaterAid country programmes across sub-Saharan Africa and South Asia have researched, often in consultation with local officials and partner organisations, the financial performance of national water and sanitation sectors. The assessments are not definitive – data deficiencies alone prohibit that. Our ambition is that they should make a contribution to national-level processes for improving the effectiveness of investments in the water and sanitation

sector. They are also a baseline against which further progress can be measured.

The assessments reveal an overall picture of a sector failing in its governance. Better use needs to be made of the funds which are already available but are often unspent, or spent in the wrong places or spent on unsustainable projects. However to achieve the MDG targets there is also a need for more money to be invested. Both these issues require political will.

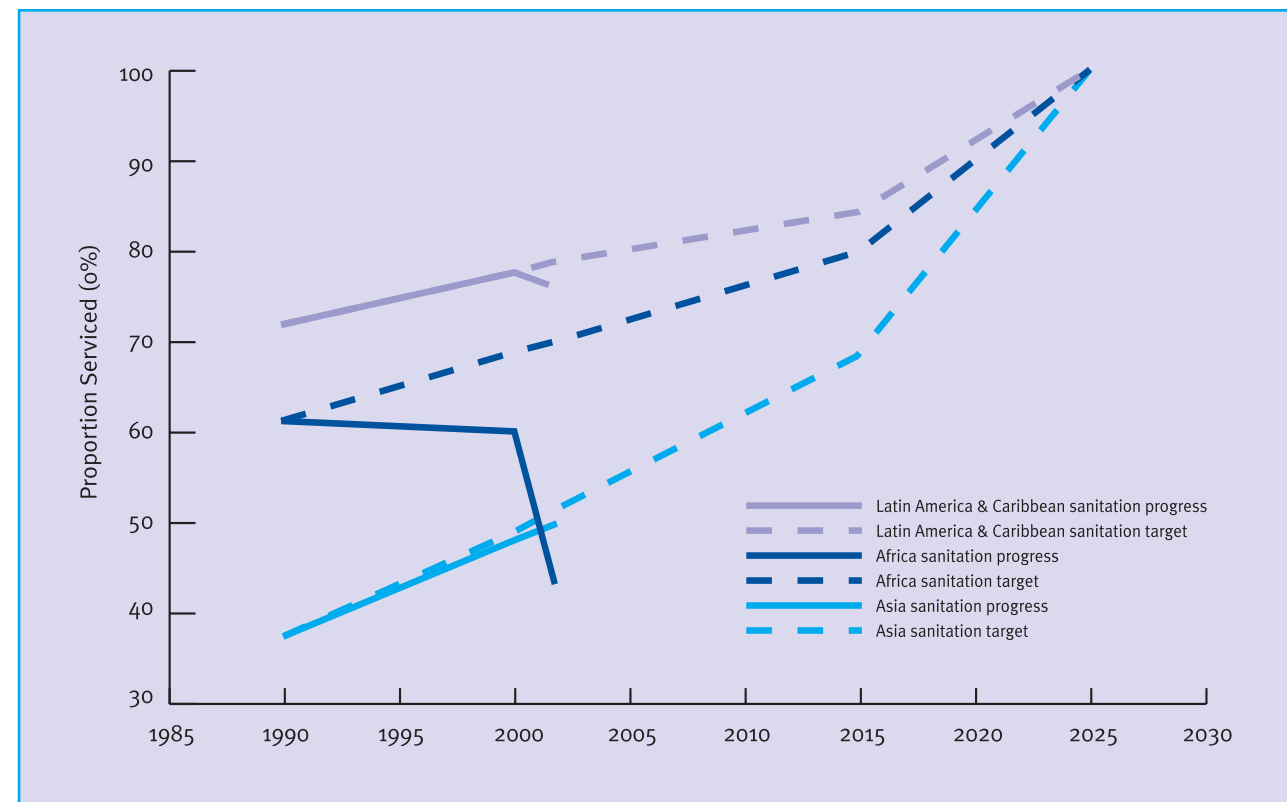
This report provides a synthesis of the assessments. It looks first at the issues most relevant to political will: **prioritisation and transparency**. It then looks at some of the complexities involved in improved financing: **targeting, sector co-ordination, capacity, and privatisation/conditionality** before concluding with consideration of the relatively straightforward calls to **double money, including via aid and debt**.

The synthesis report is intended to assist the major international development discussions of 2005 to focus on those water sector improvements which will accelerate progress towards poverty reduction targets.

The need for such acceleration is painfully clear, most especially in Africa where access to sanitation is not simply increasing too slowly but is actually reported (Figure 1) to be in decline.



Figure 1: Sanitation targets progress by region<sup>8</sup>



## Key events

- 1800s** Repeated cholera outbreaks in Europe eventually led to the medical profession's understanding of sanitation and health links.
- 1858** “Great Stink” in London prompts Government action to get sewer network constructed.
- 1930s** Droughts expose rural access to piped water in England to be below 40%. Government changes the law to permit cross-subsidisation between low and high-cost service areas and provides additional public finance.
- 1960s** USA's domestic “War on Poverty” programme includes funds for water infrastructure which raised piped water access rate from 44% to 86% by 1970.
- 1981** UN International Drinking Water Supply and Sanitation Decade 1981-1990 aims to provide universal access to safe water and sanitation.
- 1987** World Bank Report on Water Decade calls for better data on access to water, for better financial support to local government, and more participative decision-making in the interests of cost recovery and selection of appropriate technology.
- 1990** Water Conference in Delhi laments achievements as having benefited those who already had access – aim should be “some for all, not more for some”.
- 1996** Aid for water reaches \$3.3bn, which is 7% of total aid of \$49.6bn.
- 1998** World Bank Finance, Private Sector and Infrastructure Network reports tenfold increase in private water projects between 1990 and 1997. At the same time, the Bank consolidates international experience in community water supply and promotes rural water supply policy emphasising demand-responsive approach.
- 2000** Millennium Development Goals set, including target to halve by 2015 the proportion of people without access to safe water. Publication of Global Water Partnership's Framework for Action, estimating actual annual water investments at \$14bn.
- 2002** World Summit on Sustainable Development agrees corollary sanitation target to halve the proportion of people without access to sanitation by 2015. Aid for water falls to \$1.3bn, 3% of total aid of \$49.9bn.
- 2003** Publication of report from World Panel on Financing Water Infrastructure calling for all water finance flows to double, including aid, as a first step. G8 summit in Evian fails to agree to implement World Panel Report.
- 2004** Report for UN Commission for Sustainable Development finds water and sanitation prioritised by only two of the 30 developing countries with the least access to water. WHO/UNICEF Joint Monitoring Programme reports that sanitation target is off-track by 500 million people. OECD reports that delays between commitments and final disbursement of donor funds for water average eight years.
- 2005** First Millennium Development Goals – on gender equality in education and on Water Resource Management Plans – are missed. UN General Assembly declares the period 2005-2015 the International Decade for Action “Water for Life”.

**The case for prioritising water and sanitation stands on three pillars: effective development, the recognition of people’s human rights, and the increasing pressure on water resources.**

The recognition of people’s human rights is the most important of these. The right to water was belatedly recognised by the UN Committee on Economic, Social and Cultural Rights in its General Comment No.15 of November 2002. Governments have a duty to respect, protect and progressively achieve this right. That cannot happen unless they prioritise water and sanitation.

The issue is tied into the provision of democratic rights – people take any chance to articulate their demand for water. The British International Development Minister, Hilary Benn, experienced this<sup>9</sup> during a visit to Tanzania in 2004. Having spent an hour talking to the local community under the trees next to a local primary school outside Dar es Salaam, he concluded by asking “you’ve told me lots of things, what is the most important?” In response there was a “deafening chorus” of “water”.

People have also asserted their demand for water more formally during participatory poverty assessments. Such assessments are required for the development of national Poverty Reduction Strategy Papers (PRSPs) under the Highly Indebted Poor Countries (HIPC) debt relief initiative. The Cameroon PRSP reports 60% of people identifying lack of water as a cause of their poverty. In Malawi, 88% of Village Development Committees put water in their top three priorities. In Zambia, water came top of all the poverty consultations in 1994, 1996 and 1999.

In all these cases, though, water was strikingly insignificant in the final PRSPs and associated budgets. An analysis<sup>10</sup> conducted by NGOs for the UN Commission on Sustainable Development in 2004 found that just two countries – Uganda and Tanzania – had prioritised water in their PRSPs. Where it is included however, it does make a difference: In Uganda, the result was a fivefold increase in government spending, a doubling of donor aid to the sector, and an additional 2.2 million more people getting access to safe water<sup>11</sup>

**What works?**

**Madagascar – Making the argument**

A group of water sector agencies in Madagascar published a report *Assainissement – le défi* (“Sanitation – the challenge”) setting out the economic costs of the country’s failure to invest in systems for the safe disposal of faeces. The illnesses caused by the lack of such systems result in the loss of 3.5 million schooldays and five million working days annually.

Confronted with co-ordinated advocacy by donors and NGOs using this information, the government revised the national Poverty Reduction Strategy Plan and issued a new Medium Term Expenditure Framework, under which annual water sector investments will rise from \$10.2m in 2004 to \$48.6m in 2007.

Increased water access has also resulted from the establishment of democratic rule. After its independence in 1971, the Bangladesh Government established a huge construction programme which saw the average number of people relying on each shallow tubewell fall from 448 to 201 within 10 years<sup>12</sup>. And since the ending of apartheid in South Africa in 1994, the Government there has provided safe water access to nine million more people.

Generally, however, prioritisation only occurs following a crisis – whether a cholera outbreak and “Great Stink”<sup>13</sup> in 19th century London, a drought in 1974 Mali, or arsenic-contamination in 1990’s Bangladesh. Without such obvious crises at present, the water sector’s share of available funds from both national governments and aid donors is generally declining (Table 1).

**“The health sector is run by doctors who are trained to treat – preventive health measures get ignored.”** Ministry of Water official, Uganda



**Share of public spending**

Country	Previous share	Later share	Comment
Bangladesh	2.5%	2.8%	Having fallen to 1.4% the arsenic crisis has now raised this to 2.8% <sup>14</sup>
Malawi	2.6%	2.3%	Overall water sector funds fell by 37% from 2001/2 to 2003/4 <sup>15</sup>
Nigeria	9%	3.2%	Figures for 1996 and 2000 respectively <sup>16</sup>
UK	2.6%	1.9%	Bilateral aid for water: 1998/9-2002/3 <sup>17</sup>

This decline not only disregards democratic rights, but also ignores the evidence of effective development. Research results show that water-hauling takes up time – 40 billion hours annually in rural Africa alone – which could be more productively used. For children this could be in attending school: the Tanzania Household Survey 2002 found 12% more children in school when safe water was available 15 minutes rather than one hour from their homes. Lack of sanitation and drinking water are the biggest single killer of children – killing a child every 15 seconds. In turn, every 10% improvement in life expectancy at birth is associated with a rise in economic growth of at least 0.3 to 0.4 percentage points per year.<sup>18</sup>

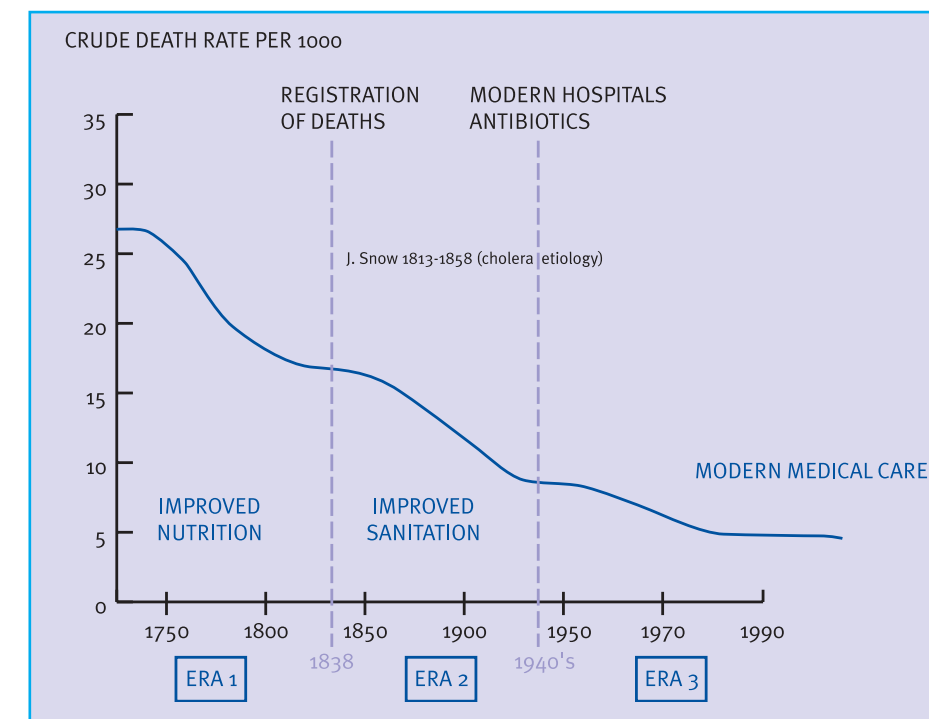
**Sanitation**

Early research in developed countries has uncovered the correlation between improved sanitation and reductions in mortality. For example, after London’s 1852 cholera outbreak, Lambeth water company moved its water intake from the River Thames upstream of where London’s sewers were discharged, giving its customers some protection from contaminated water. Real improvements in sanitation access, however, were what drove the second of the two big step reductions in mortality rates in the UK as Figure 2 shows.<sup>19</sup>

Figure 2 below shows the relative impact that improved sanitation has had on British public health over the centuries, compared to improvements in nutrition and the development of modern medical care. In many developing countries, however, where those living below the \$2 poverty line can reach up to half the total population, food insecurity leading to poor nutrition, the absence of basic sanitation and safe drinking water supply means that public health continues to be precarious.

The WHO has now estimated that \$84bn worth of benefits are being lost annually in the developing world because of the failure to meet the MDG targets of just halving the proportion of people without access to water and sanitation<sup>21</sup>. IMF guidance<sup>22</sup> emphasises the high returns and low cost of preventive health care, but found low-income countries to be spending less (38%) of their health budgets on these measures than middle-income countries (45%). Remarkably, the 2002 summary findings<sup>23</sup> of the WHO Commission on Macroeconomics and Health made virtually no mention of water and sanitation, focusing instead on curative health care and the financing of pharmaceuticals.

**Figure 2: Historical markers, and sanitation’s role in public health<sup>20</sup>**



**“Hospital cases are failures of preventive health – 85% of disease here is environmentally induced. This hasn’t changed in 26 years.”**

Ministry of Health official, Ethiopia

## CASE STUDY

Three year old Ndasiona Joshua is treated for scabies in the Lifuwu clinic, Malawi. Scabies is common when people do not have enough water with which to wash themselves or their clothes. Mr Machangwa, the head of the clinic explains the problems they encounter. “In 1999 there was a terrible outbreak of cholera and we had hundreds of patients suffering in this area. Dysentery is

another frequent problem among the 10,000 people in our catchment. It costs us about 200 Kwacha (£2) to cure a patient and in every one of these cases dirty water and poor sanitation are to blame.

Some people round here still use the lake for drinking water, especially the communities of fishermen. You can see them defecating in the lake and then drinking the water.”



Sanitation is the even poorer relation of an already under-resourced sector. In Africa, eight times more is spent on water than on sanitation, even though twice as many people lack basic sanitation as lack safe water. Excluding the impact of population growth, an extra 115 million Africans lacked basic sanitation in 2002 than in 2000 (a change from a 60% coverage rate in 2000 to just 43% in 2002).<sup>24</sup>

**“The Government expects donors to finance water... our proposal for a National Sanitation Project has been with the National Economic Council for a year without being approved.”**

Public Health Engineer, Bangladesh

Table 2: Sanitation budgets

Country	Sanitation budget	Comment
Bangladesh	No	Although there is no formal budget, 20% of Local Government Grants are now to be reserved for sanitation following a decision in 2004 to set a target of 100% sanitation by 2010.
India	Yes	However the annual rural provision of Rs 11 billion is Rs 41bn short of the Rs 52bn needed.
Madagascar	No	The development of a sanitation budget line within the Medium Term Expenditure Framework is expected to be a key result of the prioritisation of the sector within the new PRSP.
Nigeria	No	This is despite less than half of the rural population having access to sanitation in a country of 135m people.
Uganda	Yes	But the funds are limited and are not prioritised for disbursement or spending. Just 0.001% of the Local Government Development Fund goes to sanitation.

Nonetheless prioritising sanitation does not necessarily mean spending the most money on it. Some sanitation options are cheap – in Bangladesh, 78% of households have been observed<sup>25</sup> to install latrines costing less than Taka 300, or \$5.

However creating demand for sanitation does take some resources, and finding these can be difficult when so many branches of government have an interest in sanitation but none may have overall responsibility. In Uganda, the Water,

Health and Education Ministries are signatories to a Memorandum of Understanding on Sanitation, taking responsibility respectively for domestic, hospital and school sanitation. But none of them prioritise this aspect of their work in their budgets. The result is that funds of just Uganda Shillings 13.7bn (\$8m) were available in 2002/3. Just 41% of the 24.6 million population have access to sanitation, so this represents \$0.55 per unserved person.

## What works?

### Bangladesh – Banning the goo

WaterAid Bangladesh and its rural partners Village Education Resource Centre (VERC) have jointly developed an integrated, participatory and empowering approach in collaboration with people living in rural areas. The approach is called 100% (total) sanitation, which is nationally and internationally termed as the Community Led Total Sanitation (CLTS) approach. There are three basic elements:

**Stop open defecation  
Safe disposal of faeces  
Handwashing**

The principal method is the creation of peer pressure among households to adopt sanitation so that all households in a village adopt sanitation practices. This is done in part by encouraging children to sing songs about the need to stop open defecation and to plant flags highlighting any such excrement (“goo”) which is still disposed of unsafely. VERC has so far covered 415 rural communities and five unions, covering 31,214 households. The projects of other national and international NGOs are now beginning to replicate this approach in Bangladesh. The necessary sanitation infrastructure is provided by the community whose own skills, abilities and knowledge are recognised. The absence of any subsidies for latrine construction means that external finance needs are only for the facilitation roles of local government and their partners.

## CASE STUDY

“Before the situation here was really bad,” says Khotija Begum from Askarpara Uttar in Chittagong, Bangladesh. “We could see no way to improve it. Then I visited a nearby community and found out there was a way to do it. Then I asked VERC (WaterAid’s partner) to help us do the same here.

First we worked out what diseases people suffered from here at different times of the year. Then we calculated the medical cost. We worked out between us we were spending 36,000 takas (£320) a year on medicine.” Then the women worked out the ‘goo calculation’ – and discovered there was 53 tonnes of human faeces on their streets every year, and realised that was what was fuelling the disease in the village.

“We considered where it goes. It enters the stomach in many different ways, through flies which transfer it to uncovered food, through our chickens, through the ponds and the canal, on our feet. The decision was: do we want to eat our own goo, or do we find a way to overcome this problem.”

Life has changed thanks to the goo campaign. It is extraordinarily clean with few cases of diarrhoea. The village has 63 hygienic latrines which the villagers paid for themselves. And there is so much demand that a local man has set up a business providing latrine slabs. There are tubewells providing safe, clean water and a hygiene education committee. The changes are summed up by the sign at the entrance to the village which reads “Nobody is allowed to defecate in the open here.”





When concentrating on core responsibilities means losing sight of sanitation, the results can defy sense. At the Yombo Vituka Primary School in the Temeke Municipality of Dar es Salaam, there were just eight toilets for the 4000 students. Five hundred children were supposed to share each toilet. New funds to increase access to education were released, and used to create new classrooms. However, there was no provision for toilets, which instead were left to be financed by the students' parents. This in effect undermines the policy to end school fees.

**Water resource management**

The final basis for public prioritisation of the sector is the increasing strain on water resources and the costs of responding to this. Availability of water per se is not necessarily a constraint but competition from agriculture

and industry, falling groundwater levels and polluted rivers can pose a crisis for meeting the minimum needs for safe and sustainable drinking water and sanitation for all. **By 2025, more than half of the countries where 90% of people without access to safe water live are expected<sup>26</sup> to be in conditions of water stress.** In Ethiopia, water source depletion is already a major threat and communities frequently raise concerns about it. In Bangladesh, private sector tubewells have historically met needs in the north but the deeper wells required in the south – which cost 20 times more to construct – have been provided by government.

Governments therefore need to assess their water resources and step in where such market failures can be seen to be likely. However, only about one-third of developing countries are on track to meet the MDG target to develop national water resource management plans<sup>27</sup> by 2005.

**CASE STUDY**

**Zenebech Jemel** collects water from the only source available in Chobare Meno, Ethiopia. “The water is not good in this pond. There are worms and so many ugly things in it. We collect the water because we have no alternative. All the animals drink from the pond as well as the community. Because of the water we are also getting different diseases.

I have three children. They have respiratory problems, coughs and flu as well as diarrhoea and malaria sometimes. My husband or I will go to the clinic, we either take the children with us or if they are too ill, we go by ourselves and bring the medicine back for them. For three tablets we pay 12 birr to the clinic. We might visit the clinic two to three times per month. We are hoping and praying for the clean water.”



**The lack of information available on water and sanitation services means it is hard to gauge exactly where water and sanitation budgets are being spent. This greatly hinders the prioritisation of these basic services and the equity in access.**

**Information**

The extent to which a country has prioritised water is hard to assess when information is not readily available (Table 3). Increasing the availability of water sector data is a vital step towards exerting greater pressure for better performance in the sector.

Lack of transparency particularly affects the equity of access to services. In some countries, WaterAid has found that new water points are built consistently year after year in the same districts, whilst other districts remain with the same lower levels of access. This in part reflects the lack of transparency of the process.

**Table 3: Availability of information on water sector financing and performance**

Country	Statistics available	Audit procedures
Bangladesh	Annual data are produced by ministries and the Bangladesh Bureau of Statistics – but in English, which most Bangladeshis do not understand	The Auditor General can access any file or other information before reporting to the President, who in turn compiles a report for Parliament. This report is scrutinised by the Public Accounts Committee, which can summon anyone to give evidence to it. These sessions are not open to the public although they may attend by invitation. Minutes of the proceedings are kept in the Parliament Library and application may be made to view (though not to photocopy) them. Such requests may be granted for research purposes but not for journalism
Ethiopia	Latest official budget data is for 1996/7	There are formal audit reports but these are two to three years late. There are annual Parliamentary questions to the water minister but these are not well publicised. Progress on national poverty reduction targets is monitored by the Ministry of Finance and reports are shared with main donors
Tanzania	First publication of 2002 Census data was in 2003. But water data are inconsistent: Ministry reports a 34% rural water access rate while the 2000/1 Household Survey found just 11%	Water Ministry budget and performance is scrutinised by Parliamentary Committee but answers are very general and clear links are not made between expenditure and output. District Council audits are carried out by Controller and Auditor General but only 400 reports are printed each year

**What works?**

**Ethiopia – Engaging with the local community<sup>27a</sup>**

In Doddota woreda (district), a series of participatory assessments was carried out with external assistance from the European Commission. Villages placed the highest priority on water supply, irrigation and veterinary services for livestock. Technical staff then sat with the woreda cabinet and re-prioritised expenditure. The result was to increase the capital budget for rural water supply from zero to Birr 233,580 (US\$27,670) and to hold the recurrent budget at Birr 49,997 (US\$5923).

**Civil society**

Civil society action is growing and most of the countries examined have networks – albeit often very new – working on water issues (Table 4). However the success of these groups is not solely a matter of their own capacity. They need information if they are to operate effectively and analyse what is happening in the sector in order to expose inequity and tackle the vested interests which prevent money from being used for the unserved and the under-served. Civil society itself needs to continue the trend of greater collaboration if its advocacy for water and sanitation is to improve.

Table 4: Civil society involvement in national water sectors

Country	Civil society in water	Comment
Bangladesh	WSSCC-B BURT	These are the Bangladesh branch of the Water Supply and Sanitation Collaborative Council and the Bangladesh Urban Round Table. Some NGOs are additionally part of the wider sector Local Consultative Group which also includes donors and government
Burkina Faso	CCEPA	The Cadre de Concertation des ONG et Associations dans le Secteur de l'Eau Potable et de l'Assainissement was established in 2004 as a platform of 24 NGOs working in the Burkina Faso water sector
Ethiopia	CRD	The Christian Relief and Development Association – acts as the umbrella organisation and focal point for Government consultations with all development NGOs
Ghana	ISODEC National Coalition Against Privatisation of Water	The Integrated Social Development Centre began as a water sector service delivery organisation but its water work now focuses on national level advocacy, particularly concerning resource allocation
India	Regional NGO networks on water and sanitation exist in a few states. No national level network	Very little space is provided for effective civil society engagement in government programmes such as the Swajaldhara sector reforms or the Total Sanitation Campaign
Mali	CAPEA	Coordination des Acteurs Privés de l'Eau et l'Assainissement is the umbrella organisation for NGOs working on safe water and sanitation
Nigeria	NEWSAN	Established in December 2003, the National Civil Society Network on Water and Sanitation is laying a foundation for civil society interventions in the sector. It plans to adopt a memorandum of understanding bringing all groups in the six geo-political zones of Nigeria under one umbrella. Its inaugural Annual General Meeting in March 2005 marks World Water Day
Tanzania	NGO Policy Forum	This forum exists to discuss and lobby on policy issues across the social sectors. However there is no water specific network for the common interests of the 6000 civil society organisations involved in managing water supply schemes across the country
Uganda	UWASNET Uganda Debt Network	The Uganda Water Sector Network is long established and plays a significant role in the sector, for example in recently commissioning a report on NGO funding for water and sanitation and in participation in annual sector reviews. The Uganda Debt Network is active in increasing government accountability, including for the water sector, to civil society
UK	UK Water Network	A grouping of NGOs which has recently agreed to become an official network of BOND, British Overseas NGOs for Development. A separate consortium of some of these NGOs is coordinating advocacy within the UN Commission for Sustainable Development
Zambia	CSPR	Civil Society for Poverty Reduction exists to monitor progress with Zambia's PRSP

Civil society in donor countries can also increase the transparency of the sector. In the UK, there is a network of water NGOs within the broader BOND (British Overseas

NGOs for Development) network founded in 1993. There are further networks focusing on issues of aid, trade and debt in the 2005 MAKEPOVERTYHISTORY coalition.

It is vital that water and sanitation services reach those people who need services most, in an equitable way. However, this is currently not the case.

Targeting

Poor targeting of available resources exacerbates the problem of shortfalls in those resources. According to analysis<sup>28</sup> conducted by NGOs for the UN Commission on Sustainable Development in 2004, less than 40% of aid for water went to those countries which have 90% of the

1.1 billion people who need it. The British NGO Tearfund presented<sup>29</sup> this information in terms of the aid given per person without access to safe water: in middle-income countries each such person gets \$446 of aid while in the poorest countries just \$16 is received.

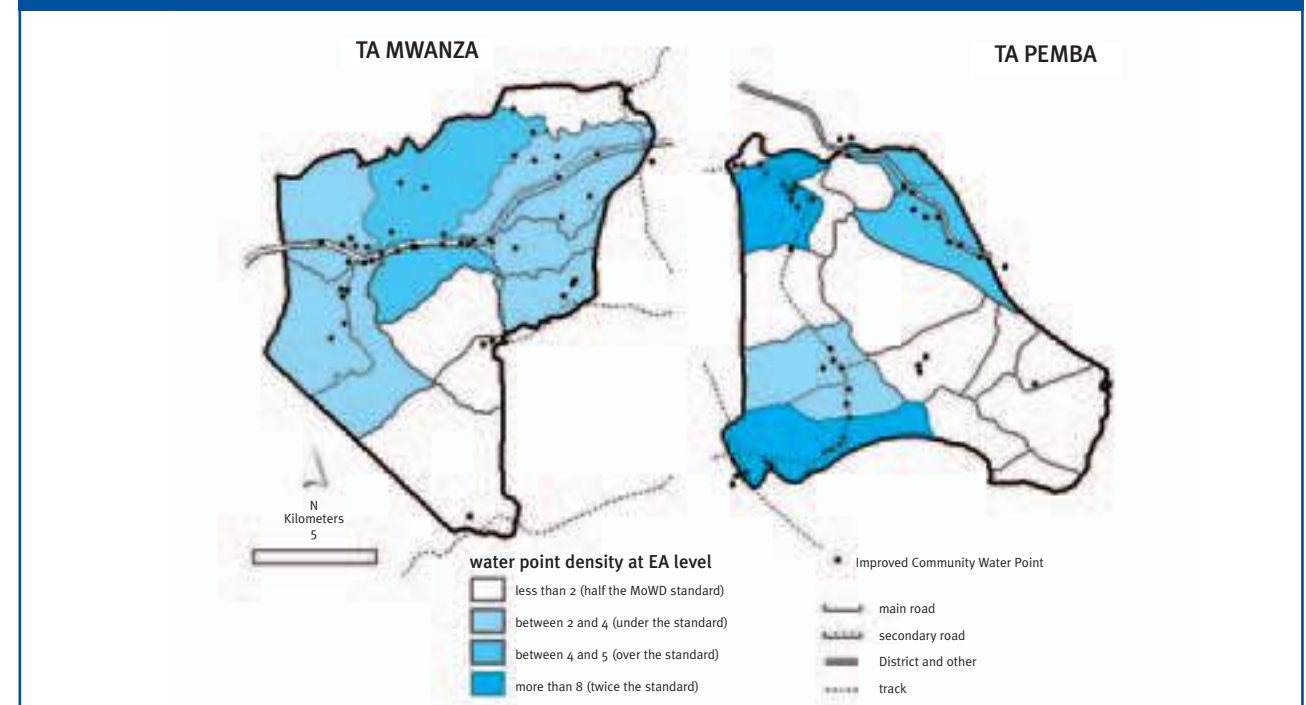
What works?

Malawi – Mapping the water points

In Malawi, areas which are already well-served receive more resources while areas which are unserved remain that way. The map below of water point locations shows how they are clustered together rather than evenly spread through the administrative areas. There are no sector-wide criteria which would make investments transparent. WaterAid has therefore developed an Equity of Distribution indicator. This involves a survey of water points and their condition, together with their GPS (Global Positioning System) positions. These data are then translated into maps to produce a GIS (Geographical Information System) water database. Combining this with census statistics of population distribution then allows calculation of the number of water points per 1000 population, called the Improved Community Water Point density (ICWP). Variations in ICWP densities of different areas reveal the equity of



distribution of the water points. New investments can then be targeted at the areas with the lowest densities. Below are results<sup>30</sup> of ICWP mapping in the Salima district of Malawi, for Traditional Authorities (TA) Pemba and Mwanza. If these trends in allocation continue, analysis shows that the MDG water target for the Salima district will not be achieved until 2027. Yet, with effective planning from the outset, it could be achieved in 2007.



## Equity

Within countries there are further failures of targeting which result in inequitable distribution. Tanzania's 2004/5 water ministry development budget is \$29m, up from \$6m in 2003/4. But 93% of this has been allocated to the Lake Victoria to Shinyanga pipeline. In terms of value for money, this makes little sense. Per capita costs are expected to be in the region of \$140, while investments in low-cost technologies in Tanzania are commonly achieved at under \$20 per capita.

The Shinyanga project is also highly unlikely to be equitable. As Figure 3 shows, there is a clear correlation between household income and use of piped sources. In contrast, the use of protected sources is evenly spread across income quintiles. From these figures it appears that investments in protected sources have been more equitably distributed than those in piped sources.

In Mali, the number of people dependent on each functioning improved water source varies from 757 in the Segou region to just 186 in Kidal. But at the same time, the budgets provided in 2003 equated to CFA 76,000 per person in Kidal but only CFA 19,000 in Segou.

In India, urban reforms are proceeding without addressing the inequity in access which sees, for example, the Delhi utility supplying 675 litres per day to residents of Delhi Cantonments (where government offices and residences of national politicians are located) while those in the Mehrauli slum receive just 25 litres. In Bangladesh the capital Dhaka's water utility has proposed spending \$1.5bn solely on its own sewage system. This amount would, according to WaterAid's calculations, be sufficient to deliver the water and sanitation targets across the whole country.

Donors also appear not to take full account of issues of equity. The latest World Bank water project in Bangladesh is a Tk. 3.2bn project which will provide piped water supplies in 300 villages, just 0.3% of Bangladesh's 83,000 villages<sup>31</sup>. The 300 beneficiary villages will already by default be the wealthier villages, since they will each be required to make a contribution of Tk. 1.7m<sup>32</sup> to the project costs. This sum equates to \$24 per person, or 7% of per capita GNP of \$360. However, in terms of the poverty line rural wage of Tk. 549, or \$10 per month, received by one third of the population it represents two and a half months wages. The poorest people are excluded from new access to safe water by default if the only technology on offer is expensive.

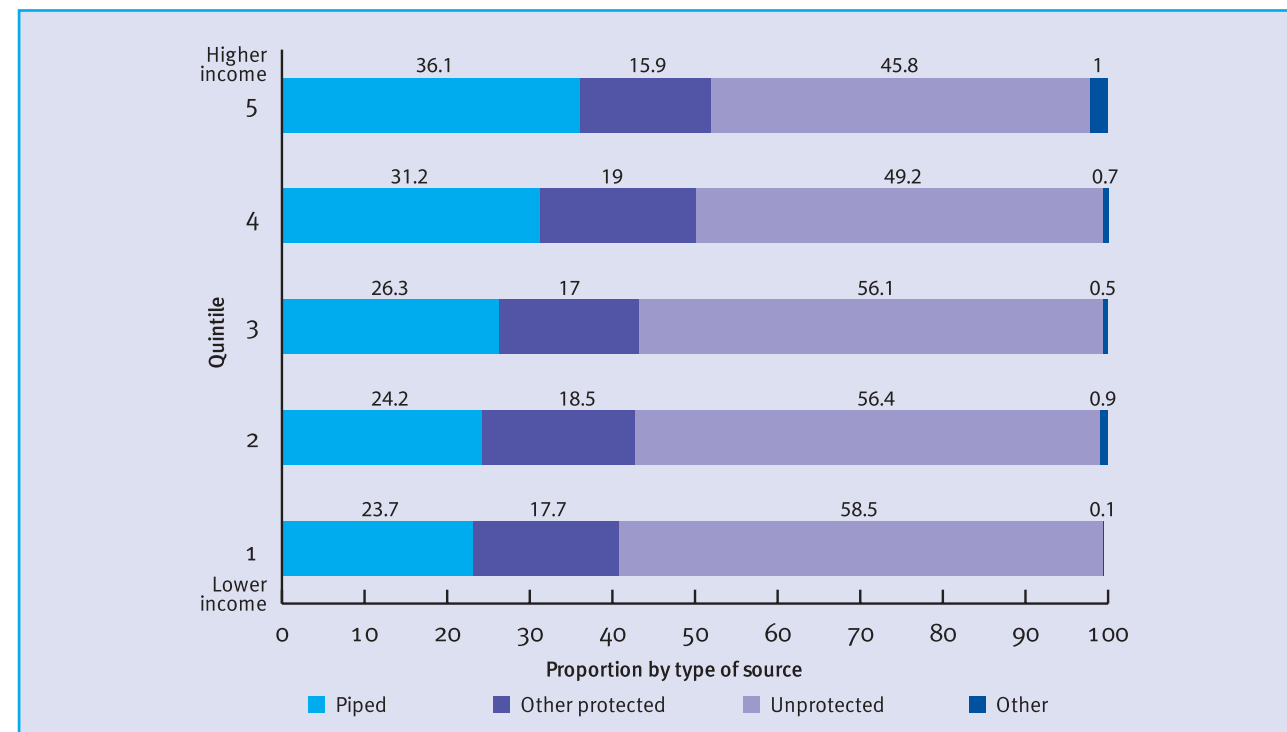
**“By making rope pumps available which cost only one-fifth of an imported pump, poorer communities too can now raise the necessary initial cash contribution.”**

NGO Coordinator, Ghana

These failures in distributing investments equitably partly arise from shortcomings in available data about the locations of water points. In Mozambique's Sanga District only 69 improved water points are recorded in the government database but a survey<sup>34</sup> by local water officials and consultants identified 114.

Inequity also results from the politicised nature of resource allocation. This can reflect party politics or ethnicity. In Bangladesh, the delay in decentralising control of resources has been attributed to local Upazila administrative boundaries being contiguous with those of Parliamentary constituencies. National MPs do not want to lose their influence over resources to local representatives elected from the same area.

Figure 3: Types of water sources used by different income groups in Tanzania<sup>34a</sup>

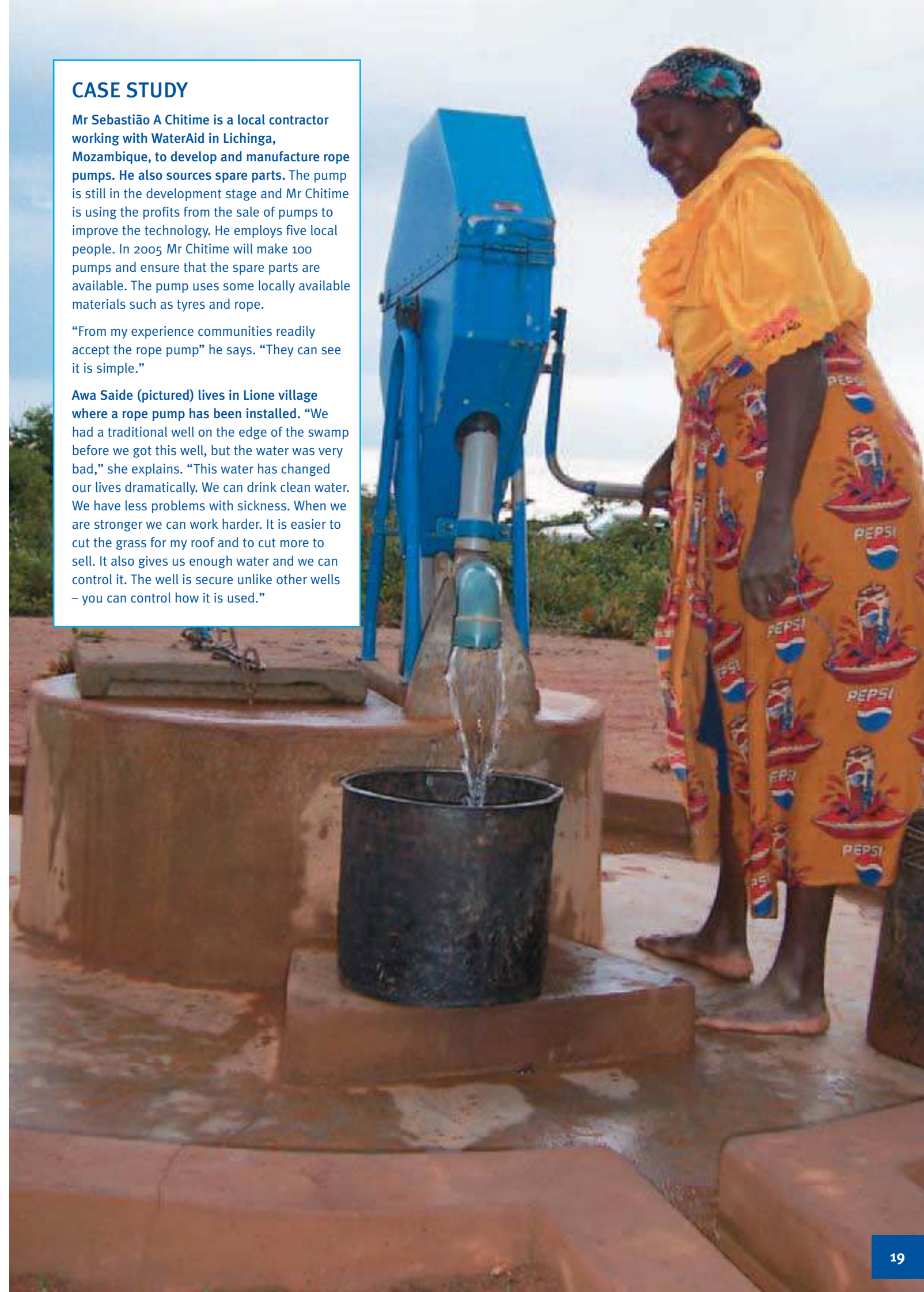


## CASE STUDY

Mr Sebastião A Chitime is a local contractor working with WaterAid in Lichinga, Mozambique, to develop and manufacture rope pumps. He also sources spare parts. The pump is still in the development stage and Mr Chitime is using the profits from the sale of pumps to improve the technology. He employs five local people. In 2005 Mr Chitime will make 100 pumps and ensure that the spare parts are available. The pump uses some locally available materials such as tyres and rope.

“From my experience communities readily accept the rope pump” he says. “They can see it is simple.”

Awa Saide (pictured) lives in Lione village where a rope pump has been installed. “We had a traditional well on the edge of the swamp before we got this well, but the water was very bad,” she explains. “This water has changed our lives dramatically. We can drink clean water. We have less problems with sickness. When we are stronger we can work harder. It is easier to cut the grass for my roof and to cut more to sell. It also gives us enough water and we can control it. The well is secure unlike other wells – you can control how it is used.”



## Overlapping water and sanitation projects along with multiple funding and reporting streams result in inequities and confusion. Reporting systems and work plans need to be unified to avoid the overlaps.

Lack of co-ordination also restricts the sector's ability to provide services equitably. In Bangladesh, one European donor was at one time funding both UNDP and UNICEF to work simultaneously in the same urban area on sanitation projects. One project provided free latrines while the other demanded a household contribution to the latrine costs. In Zambia, another European donor drew up a plan for a borehole-drilling project in 2005, only to discover that

UNICEF has been to the same area and drilled the boreholes in 2004.

In many of the countries where WaterAid has programmes, there is a plethora of routes by which funding reaches communities (Table 5). In some instances this reflects politicians' desire to control resource allocation, but on other occasions they are the product of ministries and donors with different procedures or objectives.

Table 5: Funding routes in national water sectors

Country	Funding routes	Comment
Ethiopia	Six	Two UN bodies run separate programmes, Finland supports another Community Development Fund, and the Government itself disburses money for water through at least two funds. NGOs do not operate in all areas but can be delivering more than half of water projects. Thus, although there is a framework for all funds to be channeled via government, only about one-third of external finance actually follows this route
Malawi	Nine	These range from presidential funds allocated directly by MPs, through government and World Bank funds allocated via District Coordination Teams to other NGO funds awarded under local agreements made directly with communities
Madagascar	Seven	These include development funds allocated direct to local Communes following bids, Rural Development Funds passed down through provincial administrations, funds supported by a single donor and funds supported by multiple donors
Uganda	Five	Districts get two sets of government funding with further separate funds available from donors such as UNICEF or the European Commission's Development Fund. NGO spending can be completely outside the District budget

## What works?

### Uganda – Uniting the players and processes

In Uganda there is a water sector working group whose membership includes central Government ministries, donors and NGOs. There are also monthly donor co-ordination meetings to update one another about ongoing activities by different donors.

NGOs working in the water sector are co-ordinated by the Uganda Water and Sanitation NGO Network (UWASNET). UWASNET is represented on the sector working group and therefore the NGOs can access and exert influence on policies and programmes in the sector at the national level.

A joint sector review is conducted in September each year. The members of the sector working group assess performance according to eight "golden indicators", prepare a sector performance report, conduct field visits and hold a workshop during which the reports are presented. The review takes stock of the achievements of the previous year and sets new priorities for the next year. This review provides the single opportunity for all development partners comprehensively to review policy, strategy, performance and capacity needs. Despite this high degree of coordination, there remain multiple funding routes for water projects in local districts.



## Sustainability

**“Most Districts are dealing with a variety of donors. They all have separate requirements so the District has up to 20 different bank accounts and I have to write over 200 reports a year.”**

District Assembly Chief Executive, Ghana

Having multiple routes for funding does not necessarily mean that total funding is increased. In Ethiopia, when local administrations receive funds directly from donors, they have their government funds cut back. They may still be better off if donors' funds arrive more reliably than Government funds. However this is not generally the case. The recent Ethiopia Public Expenditure Review<sup>35</sup> found that Treasury funds were better used than aid, with project aid being particularly under-utilised.

The lack of sector coordination frequently manifests itself in the variety of technology and equipment used in projects and different, often contradictory, operational practices leading to poor sustainability of water supply systems (Table 6).

In Burkina Faso, more than 30 types of handpumps are promoted by various projects and their donors. Spare parts for most of these are either unavailable or prohibitively expensive. Without a system of monitoring and planning, broken waterpoints can go unnoticed and unrepaired by the authorities for years, but still be listed in official figures as providing safe water. In most of the study countries, it is not uncommon to find inconsistent application of community management and cost contribution practices for rural water supply schemes by different donors, even within the same districts.



In many developing countries broken water supplies are common. Without the management infrastructure in place to maintain them it is common for water facilities to break down. The water collected from this pump in Malawi will now be polluted as the top is no longer sealed.

Table 6: Functionality of water points

Country	Water point functionality rate	Comment
Bangladesh	90-95%	Figure reported by the government for its own water points only. Maintenance is the responsibility of central Department of Public Health Engineering which bases four technicians in each of the 503 Upazilas (2004)
Burkina Faso	n/a	Likely to be low given the multiplicity of technologies in use and the allocation of only 9% of the sector budget to maintenance and repairs
Ethiopia	65-80%	Rates vary by region according to the age of the supply systems. Rates also vary by technology type, with some showing functionality rates of less than 50% (2003/04)
India	47%	A 2001 survey in Tamil Nadu and Andhra Pradesh found functioning access at 15%, compared with official coverage statistics of 32%. Nationally, 15% of the Rs 404bn five-year water budget is reserved for operation and maintenance. This totals Rs 12bn – just 60% of the estimated Rs 20bn annual need for the 3.5 million government handpumps and 100,000 piped schemes
Madagascar	33%	Figure from research commissioned by UNDP in 2003 for remote rural south only – unlikely to be representative of other, more accessible areas
Malawi	42-76%	Survey in eight of Malawi's 28 districts. Variations are by technology type and by age of the system (2003)
Mali	66%	Data from central government inventory of 14,182 water pumps (2003)
Mozambique	57%	Figure for Sanga District of Niassa Province only (2004)
Nepal	60%	A survey in 22 districts found theoretical coverage of 56% but access to functioning systems of just 34% (2000-2002)
Nigeria	50%	Figure reported by Benue State Rural Water Agency planners – as low as 43% in some areas (2004)
Tanzania	70%	Just repairing the piped schemes has been estimated by government at \$43m (2002)
Uganda	80-83%	Slightly higher rate is for urban supplies. Other variations by technology types with lower rates for more complex systems (eg borehole pumps compared to protected springs)

Sustainability requires financial soundness. Generally people do pay for water supplies – with their time and health if not with cash. The poorest people often pay much more per litre to private vendors for water than do the rich with their connections to public water networks. Nonetheless when new systems are installed there can be resistance to pay for water on the basis that water itself falls freely from the skies or is naturally present below ground. The argument that charges are for the supply of the water rather than for the water itself is not always accepted.

**“MTN have persuaded people that mobile phones are must-have accessories which must be paid for. No-one believes that about safe water.”** District Water Officer, Uganda

Even where payments are made, sustainability can be undermined by inadequate charges or by a failure to collect charges for a significant proportion of the services provided. In Ghana,<sup>36</sup> urban water services have average unaccounted-for water rates of 50%. Leakages alone in the capital Accra are responsible for the daily loss of 270,000m<sup>3</sup> of water worth Cedis 1.3bn (\$137,000) every day.<sup>37</sup> Meanwhile, the government pays as few as 36% of its own water bills<sup>38</sup>. In Tanzania, greater collection efficiency<sup>39</sup> meant that the Tanga urban water and sewerage authority more than doubled its water revenues between 1997/8 and 2003/4. This ended the need for the government to subsidise operations and maintenance.

Basic village borehole supplies often fail because money has not been collected to meet the comparatively large costs of repairs, or because the funds collected have been misappropriated. A survey of 39 communities in Malawi found that only one had access to sufficient money to fund the most expensive repair which might be needed, while 14 (37%) had no money for even the simplest repairs. The same survey, however, indicated that the problems of finance are closely linked to the capability of a water user association to manage the system, and to members’

## What works?

### Ethiopia – Extending tariffs

The Hitosa gravity-fed water supply scheme was completed in 1994 and has been managed by the community for the 10 years since then. It now serves 35 Peasant Associations via a network of 140kms of pipe, 125 communal tapstands and 73 private connections.

However, annual expenditure on the scheme will soon outstrip revenue, jeopardising plans to extend the network. This partly reflects the fact that over the ten years, the price of water has not increased at all, while the prices of other commodities have doubled. This ensures that even the poorest people can afford water, but it also ignores the fact that rural people are not always poor. There is increasing demand for private water connections, which require a connection cost as well as a higher water price of Birr 1.80/m<sup>3</sup> (privately-connected businesses pay Birr 2.00/m<sup>3</sup>).

The tariff structure is now under review to ensure its genuine financial sustainability in the long term ensuring funds will be available for repairs or service extensions.<sup>41</sup>

perception that should there be misappropriation of funds, they have a means of redress and can recover their money. Where community water user associations and water management committees remain informal, voluntary, legal non-entities and unsupported by local government, the sustainability of the water supply is vulnerable.<sup>42</sup>

Leadership is another important factor contributing to sustainability, the survey found. A strong village headman with a progressive attitude towards development invariably had a positive impact on sustainability. The reverse generally held true for villages with a village headman who is a weak leader.

## Gender

In WaterAid’s experience, the gender make-up of sector institutions also determines the sustainability of water services. This is because water is usually a female responsibility so women and girls have clearer vested interests in the continued functioning of water supply systems. They are therefore more likely to take care of the

infrastructure and of any funds collected to maintain it. Nonetheless water sector institutions continue to be dominated by men (Table 7).

**“There is no leadership here – the Chief did not go to school.”**

Peri-urban resident Pyakasa, Nigeria

**Table 7: Extent of women’s inclusion in water sector institutions**

Country	% of women in water sector institutions	Comment
Bangladesh	5%	Local Government Division of central Ministry has 198 staff but a male:female ratio of 20:1. There are only six female engineers among the 7254 staff of the Department of Public Health Engineering
Burkina Faso	n/a	Women are generally included on community management committees, frequently as treasurer
Ethiopia	8%	Figure for the 26 department heads in the Ministry of Water Resources. Community Management Committees have up to 25% women. Reflects wider lack of female representation – only 7% of the 589 MPs are women
Madagascar	20%	Figures for 75 senior central Ministry and regional office staff. Village management committees have up to 50% female representation
Tanzania	11%	Rate for engineer posts in Rural Water Supply Division. For six-member village committees nearly all (97%) have equal male:female representation but only 13% have a female chairperson

## CASE STUDY

“There are eight of us on the water and sanitation committee; four men and four women. It is important that women are on the committee because the problem of water is a ladies’ problem, this is one thing, the other thing is that ladies are very respectful and loyal and will not cheat on their families or communities. Women will

work hard, not steal and not compromise with people who smuggle the community’s money. They can be trusted. For all these reasons it is important for women to do this work.”

**Eyoa Abala, the storekeeper on the water and sanitation committee in Kulufo-Shegeder, Ethiopia**



While local administrative bodies are increasingly expected to shoulder the responsibility for water and sanitation services, this is not matched by the appropriate funding or staffing levels to carry out the work.

**“We are training 2100 water professionals but with better paid work elsewhere we know we will lose half of these.”**

Director of Water, Ethiopia

IMF guidance<sup>43</sup> on analysing unproductive public spending points out that where there is insufficient maintenance or a lack of qualified personnel for public operations, existing public capital will deteriorate. For example, the failure to budget for even half of the spending needed to maintain Ethiopia’s road network was held to explain why 65% of that network was in “poor” condition while just 10% was “good”.

The performance of the water sector also suffers from a lack of staff. This is exacerbated by widespread policies of decentralisation with responsibility for water services being passed to local authorities whose staff shortages are even more acute (Table 8).

These issues are of course common across developing country public sectors and the way they can arise from conditionalities set by the International Finance Institutions has been documented: the public sector pay ceiling in Zambia for example is estimated to have resulted in 8-9000 teachers remaining unemployed<sup>44</sup>.

In other sectors this issue is being acknowledged and so for example donors have recently agreed to finance increased spending on the pay bill of Malawi’s health sector<sup>45</sup>. Similar approaches may be adopted elsewhere<sup>46</sup> and the water sector’s human capital needs should also be recognised.

**“This year five of my 25 staff have left for jobs where they will be paid more than I am.”**

Government Agency Director, Madagascar

**Table 8: Local administrations’ capacity to deal with devolved responsibilities for water**

Country	Capacity issue	Comment
Ethiopia	Responsibilities devolved to local administrations, the woredas	Woredas generally have no water sector staff and there are shortages even at the higher, Zone level: Arsi Zone has no staff while Hitosa has just one where it should have 11
India	Administrative responsibilities for water are being devolved to local administrative level, the Panchayat Raj	The Swajaldhara (“streams of pure water”) process of reforming the sector to put management and operating cost responsibilities onto local communities was initiated in 1999 in 67 pilot districts covering 26 states. It was launched country-wide in December 2002 and now covers more than 400 districts. However districts outside the pilot areas have found it harder to implement the reforms
Malawi	Central Ministries’ authority is being devolved to local District administrations	District level institutions have not been fully established, meaning that District Development Plans (DDPs) have not been drawn up
Tanzania	Formal responsibilities for water and sanitation devolved to local authorities	These authorities are generally considered by central Government to be unable to discharge these responsibilities. But in fact, there are councils which do plan and deliver service expansions of over 50 water points per year

## What works?

### Tanzania – Taking projects to scale

The water MDG requires 3000 new water points per year in Tanzania. In fact, the country is doing only a few hundred. But in the Dodoma region coverage has risen from 20% in 1991 to 76% in 2002. This was achieved through integrating the work of water and health departments with WaterAid in the WAMMA programme which established teams in each district. These teams work with villages to rehabilitate schemes or build new ones using funds provided by WaterAid or other donors with a 5% contribution from the villagers themselves.



### Fiscal decentralisation

The water sector’s capacity problems are exacerbated when responsibilities are decentralised without there being a corresponding decentralisation of finance (Table 9).

**“The State has not provided a kobo<sup>47</sup> of its Naira 90 million share of the UNICEF rural water projects.”** Benue State Water Planner, Nigeria

**Table 9: Extent of fiscal decentralisation in support of devolved responsibilities for water**

Country	Fiscal decentralisation	Comment
Bangladesh	Union Parishads receive around Tk.1m in support of their Annual Development Plans	Since the average Union Parishad’s population is 20-25,000, this equates to a per capita allocation of just Tk.40-50 or \$0.75. Only 20% of this is ring-fenced for sanitation
Ethiopia	Regions’ share of overall national budget has fallen from 40% to just over 30% since 1998/9	This decline is masked by increases in total spending, which have sustained regions’ budgets in cash terms
India	Funds are not being transferred	The Swajaldhara policy is being used to free the federal budget of the costs of operation and maintenance. Only 20% of the total government of India rural drinking water budget is channelled to districts under the policy. The remaining 80% continues to be used in an older central government scheme
Malawi	Ministry of Water has paid no funds into the District Development Fund	
Nigeria	Local authorities receive hardware for which they have no funds to use	A cost sharing formula in the National Water and Sanitation Policy stipulates specific percentage contribution for each of the three tiers of government and communities for urban and rural water supply. In 2004, as part of the Federal Government cost contribution, 25,000 handpumps were purchased and distributed to states and local governments without prior discussions. Virtually all the states and local governments had no budgets to sink the wells which the pumps were to cap
Tanzania	Local authorities received less than 7% of the total of approved water expenditure in 2004/5	This equates to per capita resources of just \$0.25. Local authorities rely on bilateral and NGO funds to deliver service increases at scale
Uganda	Water funds allocated by formula but releases of money are subject to severe delays	In 2003/4 only 51% of the budget had been released when the financial year had just three more weeks to run

## Rather than donors demanding private sector involvement as a condition of aid, a more sensitive, context driven approach is required.

From the 1990s privatisation and other forms of private sector participation was seen by World Bank-led donors as a solution to the problems of the water sector. International water companies were expected to bring investments into resource-starved public utilities. Their expertise in running the water business would lead to efficiencies and improve services overall. And their management of ailing utilities would secure independence from political patronage that has plagued public water utilities for decades and contributed to their problems. But the record of

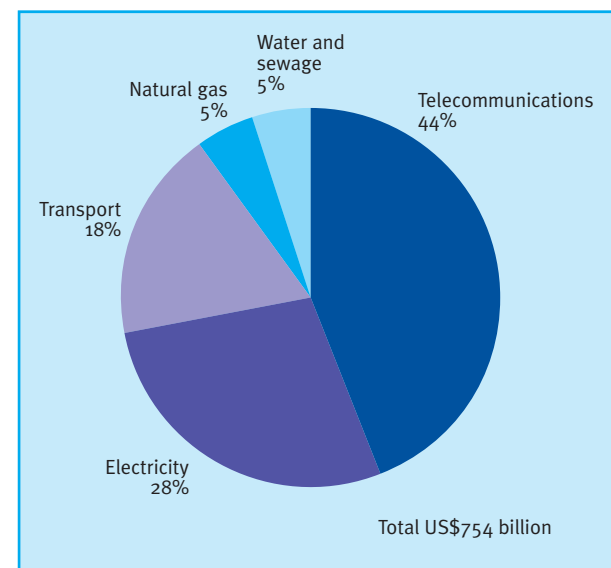
international private sector involvement is very mixed. Finance was not forthcoming – sub-Saharan Africa got just \$37m of the global \$25bn of private finance for water between 1990 and 1997 (Table 10). And water generally attracts a very small share of available private finance (Figure 4) because returns in other sectors with smaller upfront investments and bigger income streams are more attractive. The World Bank reported<sup>48</sup> in 2004 that in two of the previous three years there had been no developing country bond issued for water and sewerage.

**Table 10:** Private water and sewerage projects in developing countries by region, 1990-97<sup>49</sup>

Region	Projects	Total investment in projects with private participation (1997 US\$ millions)
East Asia and the Pacific	30	11,913
Europe and Central Asia	15	1499
Latin America and the Caribbean	40	8225
Middle East and North Africa	4	3275
Sub-Saharan Africa	8	37
Total	97	24950

Note: data may not sum to total because of rounding

**Figure 4:** Cumulative Investment in Infrastructure projects with private participation in developing countries, by sector, 1990-2001<sup>50</sup>



The lessons of history are also that the benefits which arise from access to safe water and sanitation such as more time, better health etc, are not synonymous with the kind of income streams to which private finance can respond. Accounting for these wider economic benefits – the WHO has valued<sup>51</sup> them at up to \$34 for every \$1 spent – only makes sense on the public balance sheet. London’s sewer network, for example, did not get off the drawing board until the Great Stink of 1858 compelled a government Minister, Benjamin Disraeli, to rush through legislation which effectively turned a proposed loan of £3m to the Metropolitan Board of Works into government borrowing which investors could be confident would be repaid<sup>52</sup>. In the 1930s, low levels of access to piped drinking water in rural England were only overcome by legislation enabling first the cross-subsidisation of small parishes by larger ones and then the provision of central government funds to match those raised from local ratepayers<sup>53</sup>. Similarly in the United States the “War on Poverty” begun by President Johnson included provision of funds for basic infrastructure. The Department of Agriculture variously made available to rural communities low-interest loans or grants to ensure water rates were not unaffordable. The percentage of rural houses lacking plumbing fell from 56% in 1950 to 14.5% in 1970<sup>54</sup>.

More recently, private companies themselves have shown declining interest in traditional models of private sector participation. German multinational RWE Thames have stated<sup>55</sup> that they do not wish to see forced private sector involvement. Of 18 companies who expressed initial interest in a contract in Nepal, only two serious bidders remained in the final stage<sup>56</sup> which is consequently much less likely to deliver the hoped for efficiency gains. Detailed analysis<sup>57</sup> of the determinants of utilities’ performance has in any event suggested that privatisation is not the critical factor and that effective competition and organisational and political changes are more important. Privatising a monopoly does not automatically result in competition. Good regulatory regimes are needed.

**“It is thus in the interest of companies to join the call for reforming public water utilities, eliminating the requirement of water service privatisation as a condition for country access to international aid packages and increasing public finance support access to this critical resource.”<sup>57a</sup>**

World Economic Forum

Even so, there is still a pro-privatisation tendency among donors, especially the World Bank. In Madagascar, for example, the Bank, together with the French Development Agency and the European Investment Bank, focused its conditionality demands on privatisation<sup>58</sup>. Lack of agreement as to the real priority delayed a €40m loan. In Bangladesh, the latest World Bank credit is conditional on utility price increases. Although this may enhance the utilities’ ability to repay loans from the Government, it means the poorest people may not be able to afford services.

### Growth of the local private sector

The local private sector does play a significant role in the water sector. A survey<sup>59</sup> in six major Indian cities showed that only half the effective water and sanitation demand was met by Municipal authorities. The private sector is often the only provider to the poorest people – although they pay disproportionately for it. Even so, governments and donors rarely recognise or capitalise on the potential of these local enterprises (Table 11). And while people’s own investments, especially for individual household sanitation (latrines) may be increasing, there is evidence<sup>60</sup> that some of this is on wasteful, technologically and environmentally inappropriate options. Including the local private sector in sector plans therefore offers the prospect of both greater and more efficient and sustainable extensions of water and sanitation services.

## What works?

### Uganda – Improved public utility due to innovative public administration in partnership with the private sector

Uganda’s National Water and Sewerage Corporation (NWSC) is responsible for supplying the country’s 15 largest urban centres with water and sanitation services. It covers 2.1 million people, or 75% of the total urban population. Operations declined during the 1970s and 1980s, due to political and economic crises. Water access rates were below 40% and sewer connections below 5%. Unaccounted-for water was over 50%, bill collection rates were below 50% and staffing levels were nearly four times higher than industry standards.

A new management team agreed a performance contract with the government and also committed to maintain its internal reforms in the five key performance areas. In the process a French multinational utility operator ONDEO was brought on board under an enhanced Management Contract. With the combination of a reformed Public Utility and Private Sector Participation, coverage rose to 63%. Collection rates rose to 95%. Unaccounted-for water fell to 39%. Staff productivity went from 35 to 11 staff per 1000 connections. Similar improvements have since been recorded across all NWSC’s operations.

### CASE STUDY

“I buy water for 20 shillings for each barrel from the well. In the village I can sell it for 70 or 100 shillings for each barrel. I have now bought a bicycle to increase my business. I want to use it to go and buy chickens from the next village, which I can bring back to my village to sell.”

Raffael Fidel, local water vendor in Tabora, Tanzania



Table 11: Local private sector involvement in national water sector services

Country	Scale of local private sector	Comment
Bangladesh	Eight of every nine tubewells are privately constructed	Private sector is thriving though notably not in areas where deep tubewells, which are 20 times more expensive, are required. Nonetheless public sector procurement processes are inadequate and allow rent-seeking at many points. There is no transparency or accountability in procurement
Burkina Faso	Government has trained private pump repairers for village water schemes	In addition in urban areas some waterpoints have private operators while vendors distribute water in unconnected peri-urban areas
Ethiopia	34% of government contracts are awarded to private sector	Figure is for Oromia region from 2001/2-2003/4. It is relatively low because of the lack of incentives for the private sector, for example, only the public water bureaux benefit from import tax exemptions for purchasing equipment. Tender processes are also designed to give priority to the government agency, the Ethiopian Water Works Enterprise
Tanzania	There are probably only 10 or so significant local contractors (with turnovers of \$400,000 or so) involved in water supply in the whole of Tanzania	This reflects the lack of an enabling environment. Local private companies are not offered the chance to compete. Tender procedures are inaccessible to small companies

Even where there is the political will to improve water and sanitation, governments are constrained by limited funds. Rich countries must play their part by increasing aid and reducing debt.

“We have more than 3000 requests for water schemes from rural communities queuing on our desks. There is no money for them.” Ministry of Energy and Mines, Madagascar

“I have plans prepared for many water supply schemes in the district – but just three of them would take more than my entire annual budget.” District Water Officer, Uganda

“I have 50,000 communities needing water but this year we could fund projects in just 2809 of them” Director of Water, Nigeria

The WaterAid methodology then allocates these numbers of households to be served between the different available technologies as appropriate. Unit costs for each technology are used to calculate total finance needs. Additional allowance is made for rehabilitation and overheads and the difficulty of working in some areas. The estimates are likely to be conservative as there is no explicit allocation for recruitment and training of new staff, nor for repair of any further existing systems found not to be functioning. The final stage (Table 13) is to compare this estimate of need with the latest available national sector budget and spending figures.

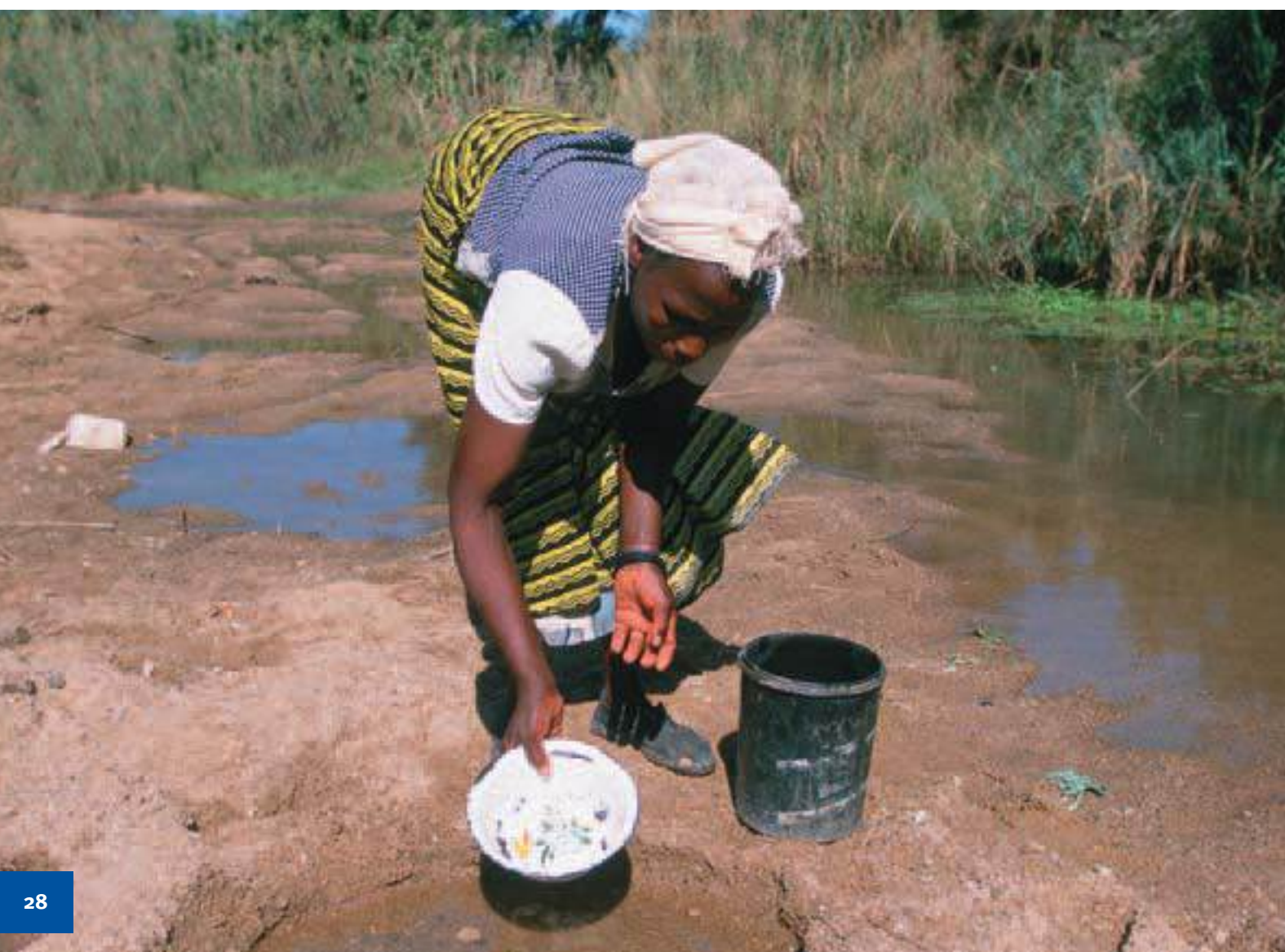
**Double spending**

The call to increase spending on water and sanitation is not new. In 1990 the UN called<sup>61</sup> for a rise in global annual spending to \$28.2bn, three times higher than the average achieved during the previous decade. Since then there has been a consensus that the global level of water sector investments needs to be doubled if MDG targets and universal access are to be achieved. This has been most recently recognised in the UN report Investing in Development of January 2005.

**Calculating finance gaps in 14 countries**

WaterAid country programmes have applied a simple methodology to estimate national financing needs for domestic drinking water and sanitation. The overall picture more than supports the case for doubling annual spending which, at \$566m in the 13<sup>62</sup> countries, is significantly less than half of the \$1435m WaterAid estimates they require and less than three quarters of the \$724m supposedly available under the combined water budgets of these countries.

The WaterAid methodology takes urban and rural coverage rates for 1990 and 2000 (or later if available) and MDG target rates for 2015 and applies these to the relevant populations. These population figures together with data on household size are then used to calculate changes in the rates at which unserved people must gain access to water and sanitation services. In effect this is a measure of how much performance in the water sector needs to be improved. Table 12 shows the results of WaterAid calculations of the numbers of households which must get access to water and sanitation each month if the targets are to be met, compared with the numbers achieved since 1990. Given weaknesses in much coverage data, these calculations may well underestimate what is required. In any event, they take no account of performance improvements needed in other areas such as sustainability of access or of equity for the poorest.





**Table 12: National Water Sector Performance Increases Required to Meet the MDG Targets**

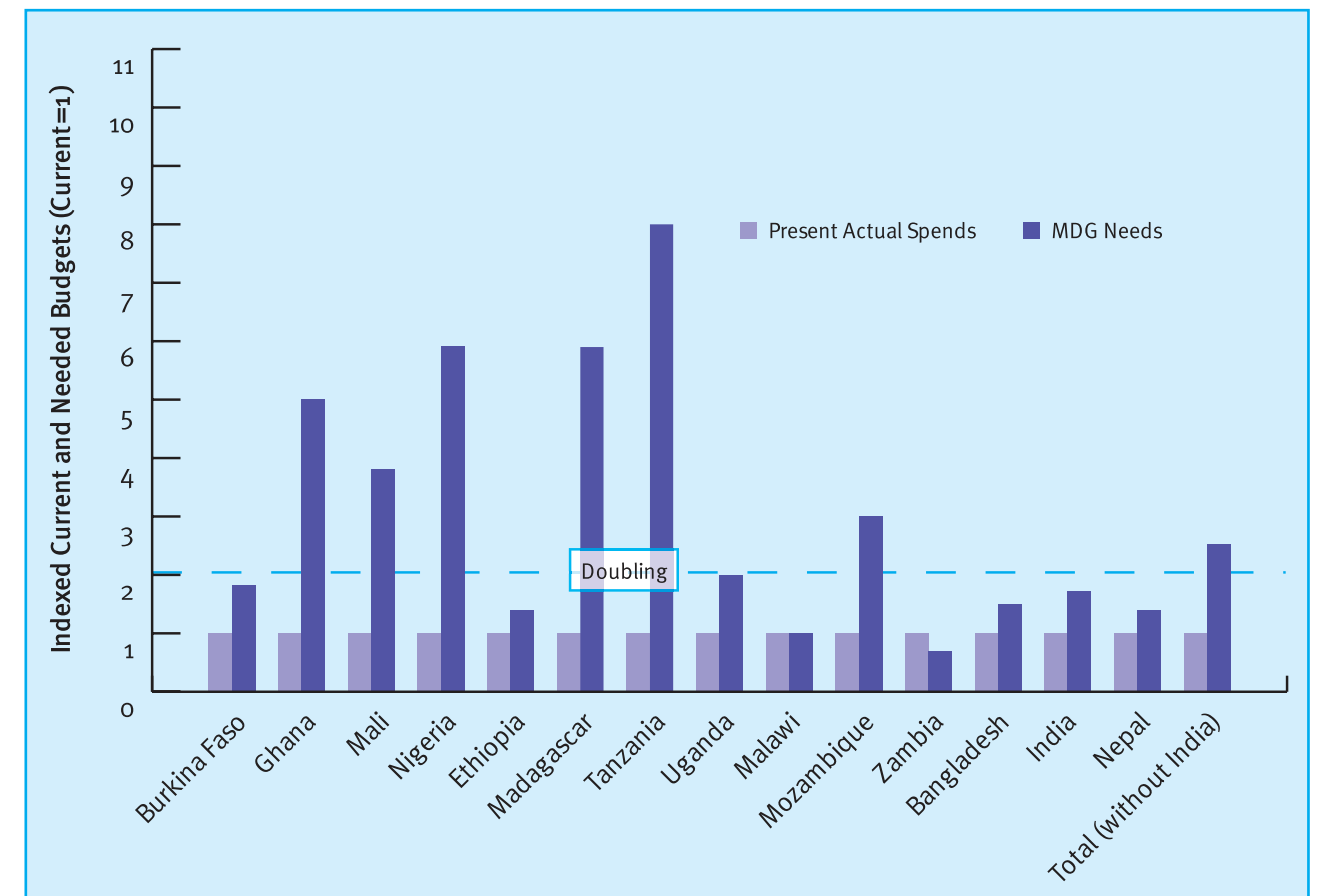
Country		Performance (Households/month)		Performance Increases Required	Comment
		Since 1990	Until 2015		
Bangladesh	Water	24,000	94,000	300%	Water increase exclusively rural and sanitation needs nine times greater in rural areas
	Sanitation	39,900	85,000	100%	
Burkina Faso	Water	1500	5300	250%	Rural Performance Improvement needs are 4-14 times greater
	Sanitation	1000	5800	450%	
Ethiopia	Water	11,400	44,000	300%	Rural Performance Improvement needs are 20-50 times greater
	Sanitation	2500	51,000	2,000%	
Ghana	Water	2900	5700	100%	Needs concentrated in rural areas by factor of 10:1 in sanitation
	Sanitation	1200	6900	500%	
India <small>Population figures</small>	Water	857,000	1000	-100%	Additional sanitation performance needs almost exclusively rural
	Sanitation	241,000	490,000	100%	
Madagascar	Water	3500	13,900	300%	Needs greater in rural areas – 700% in water
	Sanitation	900	17,800	2,000%	
Mali	Water	2300	4400	90%	
	Sanitation	1400	4700	225%	
Nepal	Water	7900	11,300	50%	Water above 150% in urban areas
	Sanitation	4100	13,700	200%	
Tanzania	Water	12,600	20,500	60%	Only achievable with fiscal decentralisation
	Sanitation	14,600	18,300	25%	
Uganda	Water	4500	29,500	550%	
	Sanitation	10,600	36,400	250%	

Results from Country Programmes for the finance gap calculations are shown in Table 13. As will be seen, the impact of India on the total figures is immense, accounting respectively for 60% and 90% of the MDG finance needs and of present spending. (Nonetheless, even India with huge overall provision is estimated<sup>63</sup> to have gaps within the sector of up to Rs 41bn or \$ 0.9bn for rural sanitation.) In order to remove this distorting effect Figure 5 uses totals which exclude India.

**Table 13: National water sector finance gaps**

Country	Annual Need \$m	Actual Spend \$m	Finance gaps	Need/spend
Burkina Faso	64	36	28	1.8
Ghana	85	17	68	5
Mali	46	12	34	3.8
Nigeria	320	54	266	5.9
Ethiopia	96	65	31	1.5
Madagascar	117	20	97	5.9
Tanzania	96	12	84	8
Uganda	110	53	57	2
Malawi	78	78	0	1
Mozambique	215	71	144	3
Zambia	10	15	-5	0.7
Bangladesh	125	83	42	1.5
India	5050	2950	2100	1.7
Nepal	73	50	23	1.5
<b>Total</b>	<b>6485</b>	<b>3516</b>	<b>2969</b>	<b>1.8</b>
<b>Total (without India)</b>	<b>1435</b>	<b>566</b>	<b>869</b>	<b>2.5</b>

**Figure 5: Spending and water and sanitation MDG financing needs in WaterAid countries**



**Improve sector performance with better use of existing funds and more funds where needed**

Two issues emerge from these calculations. First all countries' water sectors need to improve their performance if the MDG targets are to be met. Outputs in terms of new households served per month must increase by at least 50% and in some instances as much as 2000%. Against this background, all countries must look to make better use of what resources they already have.

Secondly, nearly all countries need to provide extra finance for their water and sanitation sectors. Countries broadly fall into two groups. Just over half of the African countries have very significant additional water sector finance needs. But in a second group of countries – including all three Asian ones examined – the needs for additional finance are not nearly so great. For these countries in particular, the necessary performance increases are primarily a matter of making better use of the existing funds.

**“It can take six months for funds to be transferred. There is too much bureaucracy. During the smallpox campaign two sides of paper were sufficient. We need to trust people.”**

Federal official, Ethiopia

**What works?**

**South Africa – securing political will**

The new democratic government in 1994 focused on water as a key concern of many of its supporters – at least 12 million South Africans lacked adequate water supplies. Since then over nine million more people have gained access to safe water, with the proportion without access nearly halving from 41% to 24%. Universal access to water is planned to be achieved by 2008 and to sanitation by 2010.

South Africa's taxbase and domestic capital markets are much more developed than those of other sub-Saharan countries. Aid accounted for just one-fifth of the water budget. But the three key success factors reported<sup>64</sup> by the then South African Water Minister, Ronnie Kasrils, can apply everywhere:

- Political leadership – water was prioritised by the President and the cabinet including the Finance Ministry and then down through all layers of government
- Focus on action – planning was kept as simple as possible
- Funding – an annual \$120m budget was created and targeted at construction rather than policy frameworks and feasibility studies

For all countries the first issue in making better use of money is simply to make sure that it gets used at all. Inefficient government finance systems often result in disbursement of money too late for it to be used within the financial year, thus forcing it to be returned to central government. At other times intermediate institutions between central government and the lowest local administrative tier make deductions – with or without any legitimate justification – from the funds before passing them on.

It is difficult to be definitive about these situations since available data can be incomplete. For example, in Zambia the Ministry of Finance is often not provided with the information by donors to account for their share of the budget. However Table 14 gives an indication of how much the water and sanitation sector is losing out because of failure to spend budgeted funds. Arguably therefore both clarity and timeliness of water sector expenditure could be enhanced if funds were ring-fenced and passed directly to the responsible authorities as happens in some other sectors<sup>65</sup>.

**“The State has approved our Naira one million water budget but hasn’t released the funds. They make unreasonable deductions for white elephant projects.”**

Local Government Watsan Unit Secretary, Nigeria

**Table 14: Water budget utilisation rates<sup>66</sup>**

Country	Utilisation rate	Comment
Ethiopia	38%	Reflects spending of just \$65m from \$173m budget
Ghana	56%	Average figure for Ghana Water Company Limited 1996-2000. Just 37% in 1997 and only reached 95% in 2000 because budget was reduced. Actual spending was near constant at around Cedis 80bn (\$8.9m)
India	9%	This is in relation only to the rural sanitation budget of Rs34 billion (\$718m) between 1999 and 2003
Mali	64%	Reflects 2002 spending of CFA 6,120 against CFA 9558 budget
Nepal	65%	Average for 1994/5-2001/2. Actually dipped as low as 48% in 2001/2
Nigeria	56%	Figure for water supply budget. Overall 74% of total water resources budget was released
Tanzania	43%	Reflects spending of just \$13m against \$30m budget
Uganda	55%	2003/4 figure. Reflects both disbursement – 68% of budget – and then spending (81%) of the disbursed funds
Zambia	33%	2001 figure. Previously as low as 2% (for capital expenditure). Reflects both non-disbursement and disbursements too late in the financial year for funds to be used



**“The EU is notorious for providing assistance without the participation of the Government. The Ministry has no idea how much the EU is spending on its Three Towns project.”**

Donor representative, Uganda

**“We see one figure on paper but another on the cheque.”**

Local Council Chairman, Nigeria

These failures to use all the available funds look particularly serious given the increases in performance required from the sector if the MDG targets are to be met.

#### Aid and debt

In the water sector, as elsewhere, the role of aid is to finance poverty reduction in those countries and sectors for which other finance – public or private – is not yet available. At the global level, aid accounts for roughly 20% of water sector investments. Thus, of the annual total of \$30bn estimated in 2000 to be required for the water and sanitation MDGs, aid should have been providing \$6bn. The latest UN calculations<sup>68</sup> suggest that in 2006 aid for the water MDGs should amount to \$7bn.

#### Donors

For the countries in which WaterAid and its partners work, however, aid is much more significant. In Ghana it supports 76% of sector investments, in Zambia 85% and in Burkina Faso 89%.

Aid for water has in fact been falling from its 1995 peak of \$3.9bn (Figure 6). The latest OECD figures<sup>69</sup> show aid for water slumped to \$1.5bn in 2002 before rising again to \$2.7bn in 2003, which is less than half of the required \$6.7bn. Although aid for water has a broad correlation with total aid, there are also significant differences. In some periods aid for water increases even though total aid is falling but, at present aid for water is continuing to decline<sup>70</sup> even though the declining trend in total ODA was reversed in 2001/2.

These fluctuations in global totals of aid for water also occur at national level: external support for the Ghana Water Company fell from Cedis 200bn in 1996 to Cedis 36bn in 2000. In Bangladesh, aid for water rose from Tk. 1.8bn in 1999 to Tk. 2.6bn in 2000, before falling back to Tk. 1.6bn in 2003.

**“A conservative estimate would be that 30% of sector funds go missing... [municipal authorities] wait for their cut, donors are pulling out of urban work”**

Donor representative, Bangladesh

There are several reasons for declining donor interest. In Bangladesh, donors are reported to be frustrated with local authority delays. In Zambia, where donor support for water fell from \$36m in 1998 to \$29m in 2002, the suggestion is that donors prefer to support the health and education sectors which they judge to be better organised. In Ghana, the support of donors for the Ghana Water Company Limited has fallen in line with the evidence that the utility simply could not absorb the original, higher levels of funding.

## What works?

### Nepal – Localising the MDG targets

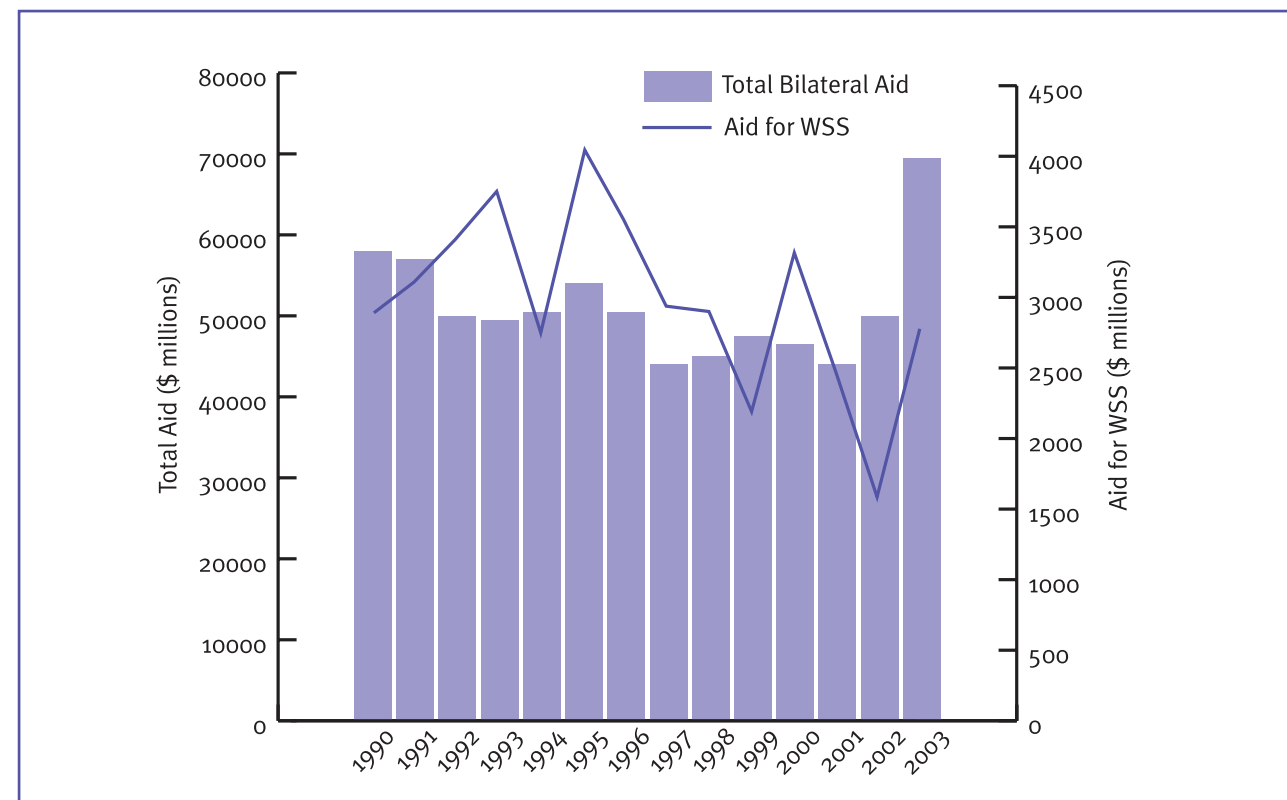
At national level the large numbers involved in the MDG targets are daunting. In Nepal, to stress the targets’ achievability – and to inject a spirit of friendly competition into their delivery – their implications for local administrative areas have been calculated.

While water nationally requires 11,300 extra households to be provided with access to safe water each month, this equates at village level to just two households with another six in each municipal ward. Similarly for sanitation, the national requirement of 13,700 households becomes just five toilets per month in each village with another five in each municipal ward.

Similar approaches are now being made by WaterAid’s Country programmes in Mali, Burkina Faso, Ghana and Nigeria under their *Local Millennium Development Goals Initiative*<sup>67</sup>. Programme activities include workshops with local authorities to raise awareness of the MDGs, facilitation of local authority planning procedures with use of waterpoint mapping techniques to target resources more effectively, and, the development and implementation of local authority training strategies.



Figure 6: Comparison of total aid with aid for water and sanitation: 1990-2003



**“The World Bank and the Asian Development Bank can lose three or four months each year in making revisions to projects.”**

Donor representative, Bangladesh

**“Donor procedures are very lengthy – and longer still when they lose project papers. The African Development Bank did this four times for one project.”**

Federal Water Sector Planner, Ethiopia

**“The hallmark of EU aid is bureaucracy – they promised us an easy guide to accessing their funds but it was a nightmare to decipher.”**

Federal Water Director, Nigeria

These variations in aid flows cause problems in the water sector, where projects can take many years to complete and so require stable funding flows. But aid for water is not only insufficient and variable, it also arrives very late. The OECD reported<sup>71</sup> in 2004 that disbursements of aid for water take on average four to five years to reach their peak following the initial commitment, and projects usually take eight years to be fully completed. In Ghana, the Community Water and Sanitation Agency identified<sup>72</sup> 11 funders of the sector in 2001 and suggested that the bureaucratic procedures of some of them was a major constraint to the agency’s operations.

As a result aid funds are often less-utilised than other funds such as those from central Government. In the context of the clear need for the water sector rapidly to improve its performance, this is a strong argument for aid for water to be provided via budget support.

Table 15: Comparison of national and donor funding utilisation rates

Country	Utilisation rate		Comment
	Government	Aid	
Ethiopia	106%	46%	Reflects spending of just \$65m from \$173m budget. World Bank Public Expenditure Review noted that aid and particularly project aid was severely under-utilised
Ghana	105%	54%	Average figures for Ghana Water Company Limited 1996-2000
Uganda	65%	44%	2003/4 figures reflecting spending of 81% of funds disbursed at 80% (Government) and 54% (donors)

## Debt

In spite of these shortcomings in aid for water, debt repayments are still being demanded from developing countries. In several countries where WaterAid has programmes, debt repayments dwarf what is needed to close the finance gap for the water and sanitation MDG targets (Table 16).

**“We make annual debt repayments of more than \$1.7bn, three times our education budget and nine times our health budget. Nigeria cannot meet the Millennium Development Goals without debt cancellation.”**

Ngozi Okonjo-Iweala, Finance Minister of Nigeria

The resulting pressures on public finances are encouraging governments to borrow more money from their own local capital markets. In Bangladesh this has caused donor concern<sup>74</sup> about the impact on interest and investment rates. Similarly, in Ethiopia the local business sector has complained<sup>75</sup> about being crowded out of access to capital.

Where debt relief is available under the Highly Indebted Poor Countries (HIPC) initiative, the additional resources available for poverty reduction can assist the water sector. In Zambia in 2001, Kwacha 18bn, or 51% of the total Kw35bn water budget, came from debt relief. Uganda, too, increased its national water spending fivefold after receiving debt relief, and in Ghana HIPC is being publicly credited with improvements to water and sanitation systems.

**“The country’s economy is not healthy because Government is taking up most of the available domestic financing.”**

Member, Addis Ababa Chamber of Commerce, Ethiopia

The water sector may also be directly affected by the issue of unpayable debts. The Ghana Water Company Limited (GWCL) has enormous debts relating to foreign currency loans<sup>76</sup>. The loans were made to the Ghana Government but on-lent to the GWCL. Owing to the collapse in the local currency, the Cedi, the size of these debts has hugely increased<sup>77</sup> and has in effect made GWCL bankrupt for the last few years. Annual Reports and Accounts for 2001, 2002 and 2003 were not published.

Table 16: Comparison of national debt repayments and water investment needs

Country	Annual financing needs <sup>73</sup>		Water finance needs as a proportion of debt spending
	Debt Payments	Water MDGs gap	
Bangladesh	\$948m	\$42m	4%
Ethiopia	\$239m	\$31m	13%
Nigeria	\$1700m	\$266m	16%
Tanzania	\$141m	\$84m	60%
Uganda	\$155m	\$57m	37%



## It is time to turn up the heat to ensure that the world's poorest people gain access to water and sanitation.

The challenges outlined in this report present the development community as a whole and the water and sanitation sector in particular with an agenda for action. Better use of existing financial resources are needed, alongside real increases in public investments to improve the performance of the water and sanitation sector and achieve the MDG targets. This requires not just political will from governments concerned, but energetic championing by political leaders.

2005 presents a unique opportunity for the most powerful political and financial leaders of the developed and developing world to do just that. The new UN Decade of Action – Water for Life is launched, hopefully to provide a platform for injecting energy into efforts to address the investment needs in the water and sanitation sector. At the same time, the richest countries of the developed world are set to consider more fully the development needs of poor countries, particularly in sub-Saharan Africa where the highest proportion of people without access to water and sanitation live, when they meet at the G8 summit in July in Scotland.

Civil society organisations in the water and sanitation sector stand ready to work with these leaders to pursue actions on the range of challenges outlined above. WaterAid is committed not just to support civil society action on these issues, but also to lead in raising the alarm should donor and developing country governments renege on their commitments.

### CASE STUDY

“I remember when I was little and mum spent all day looking for water for us. We'd go without food all day. One particular time I remember we waited all day and then all night for her. She didn't come home until the morning and her buckets were empty. She hadn't been able to find any. We cried so much it was terrible. I have one child now and I am so happy to think that my child will never have to tell a story like that.”

Natangamwaki, Amai, Tanzania



This document is a synthesis of a series of reports from WaterAid Country Programmes assessing national water sector issues. The synthesis and the national reports have been compiled in support of both national and international advocacy work by WaterAid in 2005. The full set of documents is available at [www.wateraid.org](http://www.wateraid.org). Further information on this document can be obtained from David Redhouse at [davidredhouse@wateraid.org](mailto:davidredhouse@wateraid.org) and on the international advocacy work from Belinda Calaguas at [belindacalaguas@wateraid.org](mailto:belindacalaguas@wateraid.org)

- <sup>1</sup> *The World Health Report 1999 – making a difference* (WHO 1999) Most of the children are under-5s
- <sup>2</sup> Hutton G. & Haller L. *The Costs and Benefits of Water and Sanitation Improvements at the Global Level* (WHO 2004)
- <sup>3</sup> Hutton G. & Haller L. op. cit
- <sup>3a</sup> WHO/UNICEF (2000) *Global Water Supply and Sanitation Assessment*
- <sup>4</sup> Silva G, Tynan N, Yilmaz Y. (1998) *Private Participation in the Water and Sewerage Sector – Recent Trends' Public Policy for the Private Sector*. Note no. 147, August 1998 The World Bank Group
- <sup>5</sup> *Framework For Action* (Global Water Partnership 2000)
- <sup>6</sup> “Facts & figures” (accessed January 2005) at <http://www.jubileedebtcampaign.org.uk/?lid=247>
- <sup>7</sup> *Water Supply and Sanitation and the Millennium Development Goals addendum 3 to Progress Report and Critical Next Steps in Scaling Up: Education for All, Health, HIV/AIDS, Water and Sanitation* (World Bank March 2003) as quoted in Smets H *The Cost of Meeting the Johannesburg Targets for Drinking Water* (Water Academy, Frence March 2004)
- <sup>8</sup> Meeting the MDG drinking water and sanitation target. A mid term assessment of progress (WHO/UNICEF, 2004)
- <sup>9</sup> Hilary Benn speaking on 16 December 2004 at Commission for Africa stakeholder consultation meeting at the London School of Oriental and African Studies
- <sup>10</sup> *A scorecard assessment of developing country and donor progress* (A consortium of NGOs delivering on water April 2004 available on websites of Care, Oxfam, WaterAid et al)
- <sup>11</sup> Slaymaker. T. & Newborne. P. (2004) *Implementation of Water Supply & Sanitation Programmes under PRSPs* Odi/WaterAid
- <sup>12</sup> Private communication: Department of Public Health Engineering, Dakar, Bangladesh 2004
- <sup>13</sup> The Great Stink occurred during the summer of 1858 when very hot weather caused the sewage-polluted River Thames to be particularly malodorous
- <sup>14</sup> Government of Bangladesh (2004) *Current Situation- Institutional Review, Water Supply and Sanitation Sector*, Unit for Policy Implementation, Local Government Division, Government of Bangladesh
- <sup>15</sup> WaterAid Malawi (2004) Report of research into the financial flows, resource allocations processes and impact of investments made in the water supply and sanitation sectors in Malawi. WaterAid Malawi
- <sup>16</sup> Nigeria budget figures are from the official budget of the relevant years
- <sup>17</sup> Department For International Development (2004) DFID Water Action Plan. A DFID Policy Paper. DFID. UK
- <sup>18</sup> *Macroeconomics and Health: Investing in Health for Economic Development*. Report of the Commission on Macroeconomics and Health (WHO 2001)
- <sup>19</sup> From: McKinlay, J, McKinlay, S.M. “The Questionable Effect of Medical Measures on the Decline in Mortality in the United States in the Twentieth Century”, *Milbank Memorial Fund Quarterly*, 55(3), 1977
- <sup>20</sup> The questionable/effect of medical measures on decline in mortality in the Unites States in the TwentiethTewntieth Century. *Milbank Memorial Fund Quaterely*, 55(3), 1977. McKinlay, J, McKinlay, SM
- <sup>21</sup> Hutton G & Haller L. *The Costs and Benefits of Water and Sanitation Improvements at the Global Level* (WHO 2004)
- <sup>22</sup> *Unproductive Public Expenditures: A Pragmatic Approach to Policy Analysis* (IMF Fiscal Affairs Department 1995)
- <sup>23</sup> *Investing in Health: A Summary of the Findings of the Commission on Macroeconomics and Health* (WHO 2003). The Commission was chaired by Jeffrey Sachs and Commissioners included K Y Amoako of the Economic Commission for Africa and the now Prime Minister of India, Manmohan Singh
- <sup>24</sup> Data from WHO/UNICEF joint monitoring programme assessments 2000 and 2004
- <sup>25</sup> *Achieving Sanitation for All by 2010 Through CLTS* (WaterAid Bangladesh internal document 2004)
- <sup>26</sup> *Water Scarcity in the Twenty-First Century* (International Water Management Institute)
- <sup>27</sup> *A scorecard assessment of developing country and donor progress* (A consortium of NGOs delivering on water April 2004 available on websites of Care, Oxfam, WaterAid et al) Developed countries too have a patchy record on this. Around one quarter of these countries too are not on track to produce IWRM plans by 2005
- <sup>27a</sup> What sort of fiscal policy? D de Waal and T Abraham, WaterAid 2004 (unpublished draft)
- <sup>28</sup> *A scorecard assessment of developing country and donor progress* (A consortium of NGOs delivering on water April 2004 available on websites of Care, Oxfam, WaterAid et al)
- <sup>29</sup> *Making every drop count: An assessment of donor progress towards the water and sanitation target* (Tearfund 2004)
- <sup>30</sup> WaterAid Malawi (2004) Report of research into the financial flows, resource allocations processes and impact of investments made in the water supply and sanitation sectors in Malawi
- <sup>31</sup> Bangladesh water supply programme project (BWSPP) five year project starting October 2005
- <sup>32</sup> If Bangladesh's 97m rural population was spread evenly across the 83,000 villages, each would have a population of 1,200 requiring Taka 1,450 from each person to make up the community project contribution of Taka 1.7m. At the exchange rate of \$1 = Taka 60, this is equivalent to \$24
- <sup>33</sup> *Bangladesh: Public Expenditure Review* (World Bank 2003) Annex 5
- <sup>34</sup> Private communication WaterAid Mozambique 2004

- <sup>34</sup> United Republic of Tanzania, 'Poverty and Human Development Report 2003'
- <sup>35</sup> *Ethiopia: PER 2003 an overview of aggregate spending* Powerpoint presentation provided in private communication with UNICEF July 2004
- <sup>36</sup> Private communication with Ghana National Water Commission, 16 August 2004
- <sup>37</sup> Reported by Nkrumah, Water Restructuring Unit, Accra, Ghana
- <sup>38</sup> WaterAid analysis of figures in annual reports 1996-2000 of Ghana Water Company Limited
- <sup>39</sup> *Tanga water revenues double* Front page story in Tanzania's "Business Times" October 8-14 2004
- <sup>41</sup> Tekalign Tsige (2001) Financial sustainability, Water tariff and increasing water usage (sheet 2), WaterAid Ethiopia
- <sup>42</sup> Slaymaker T & Newborne P. op. cit
- <sup>43</sup> IMF 1995 op. cit
- <sup>44</sup> *Undervaluing teachers: IMF policies squeeze Zambia's education system* (Global Campaign for Education policy briefing 27 September 2004)
- <sup>45</sup> *UK pledges £100m for better health in Malawi* (DFID 3 December 2004). The package includes £55m for an Emergency Human Resource Programme to attract and retain health workers
- <sup>46</sup> Professor Jeff Sachs recounted in a teleconference with UK NGO representatives that the IMF resident representative in Kenya had said that the IMF would not stand in the way of raising the health sector pay ceiling (private communication 17 January 2005)
- <sup>47</sup> In Nigerian currency, 1Naira = 100 Kobo
- <sup>48</sup> Figure 6.5 in *Global Development Finance: Harnessing Cyclical Gains for Development* (World Bank 2004)
- <sup>49</sup> World Bank Private Participation in Infrastructure PPI Project Database
- <sup>50</sup> World Bank PPI Project Database
- <sup>51</sup> Hutton G. & Haller L. op. cit
- <sup>52</sup> Halliday S *The Great Stink of London: Sir Joseph Bazalgette and the Cleansing of the Victorian Metropolis* (Sutton Publishing Limited 1999)
- <sup>53</sup> M D Wright *Water-supplies in rural areas: the case of Silverdale, Lancashire* The Local Historian Vol.26 No.3 August 1996
- <sup>54</sup> Gasteyer S P *Water and sanitation in the rural USA – scaling up through NGO technical assistance in Waterlines* Vol 23 No.2 October 2004
- <sup>55</sup> "Private water, public good" Bill Alexander, Letter to the Editor, International Herald Tribune 19 March 2003
- <sup>56</sup> Mitlin, D. (2002) 'Competition, Regulation and the Urban Poor: A Case Study of Water', *Discussion Paper no.37*, Manchester: Centre on Regulation and Competition, Institute for Development Policy and Management, University of Manchester
- <sup>57</sup> Kirkpatrick C et al (2004) 'Foreign Direct Investment in Infrastructure in Developing Countries: Does Regulation Make a Difference?' *Working Paper No.85* Manchester: Centre on Regulation and Competition, Institute for Development Policy and Management, University of Manchester
- <sup>57a</sup> World Economic Forum, Global Governance Initiative, Page 86.
- <sup>58</sup> Private communication with World Bank officials 2004
- <sup>59</sup> *Water and Sanitation Study Report* (International Water Management Institute 2004)
- <sup>60</sup> The Public Affairs Centre in India has documented in its various city Report Cards that owing to uncertain and low water supplies and lack of sewerage, householders are investing in their own large septic tanks and in pumps to withdraw water from trunk mains
- <sup>61</sup> *Achievements of the International Drinking Water Supply and Sanitation Decade 1981-1990* Secretary General's Report (UN 13 July 1990)
- <sup>62</sup> This is excluding India since that country alone accounts for 60% of the needs and 90% of present spending. India itself has no overall finance gap but the present allocation of the funds does leave a significant gap in relation to rural sanitation – see *Drinking Water and Sanitation Status Report* (WaterAid India 2005)
- <sup>63</sup> WaterAid India op.cit
- <sup>64</sup> Kasrils R *The Right to Water for the Poorest – The South African Experience* Speech to the International Conference of the International Water Academy, 5 November 2003, Stavanger, Norway
- <sup>65</sup> In Nigeria State and Local Government allocations are topsliced and the funds sent directly to local Education Boards which have no other responsibilities.
- <sup>66</sup> WaterAid (2005) *National Water Sector Assessments*, various countries, forthcoming
- <sup>67</sup> Local Millennium Development Goals Initiative – deepening local governance towards achieving water and sanitation MDGs (WaterAid Ghana July 2004)
- <sup>68</sup> *Investing in Development* (UN Millennium Project 17 January 2005). This report calculates per capita MDG financing requirements with water and sanitation MDGs averaging 6% of the total needs. For 2006 the total cost to the international system of the MDGs (ie excluding developing countries' domestic financing) is given as \$121bn (Table 17.3)
- <sup>69</sup> Data from OECD Development Assistance Committee online database
- <sup>70</sup> *Development Cooperation: 2004 report* (OECD January 2005) notes (p46) that water's share of bilateral aid fell from 9% in 1999/2000 to 6% in 2001/2 and comments that in view of the efforts being made to achieve the MDGs "the decline in aid for water seems paradoxical"
- <sup>71</sup> *Aid for Water Supply and Sanitation – a report prepared by the Secretariat of the Development Assistance Committee (DAC) of the OECD at the request of The International Water Academy* (TIWA 19 August 2004)
- <sup>72</sup> *2001 Annual Report Community Water and Sanitation Agency* (Ghana Ministry of Works and Housing)
- <sup>73</sup> WaterAid (2005) *National Water Sector Assessments*, various countries, forthcoming
- <sup>74</sup> *Bangladesh: Public Expenditure Review* (World Bank 2003)
- <sup>75</sup> *Government condemned for its lion's share of domestic loan facility* Lead story in "The Reporter" newspaper, Wednesday June 23 2004
- <sup>76</sup> Private communication with Ghana National Water Commission, 16 August 2004
- <sup>77</sup> The GWCL 1999 Annual Report for example notes that foreign exchange losses increased by more than 100% contributing to overall losses of cedis 116 billion
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