Financing the Millennium Development Goals

for domestic water supply and sanitation

A WaterAid report written by
Geraldine Terry and Belinda Calaguas

WaterAid

WaterAid is an international non-governmental organisation dedicated exclusively to the provision of safe domestic water, sanitation and hygiene education to the world's poorest people. These most basic services are essential to life; without them vulnerable communities are trapped in the stranglehold of disease and poverty.

WaterAid works by helping local organisations set up low cost, sustainable projects using appropriate technology that can be managed by the community itself.

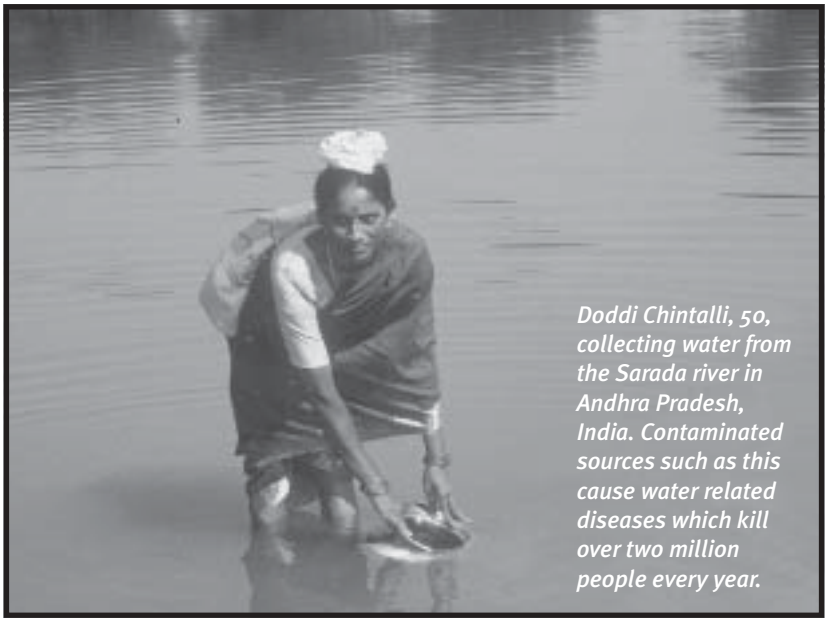
WaterAid also seeks to influence the policies of other key organisations, such as governments, to secure and protect the right of poor people to safe, affordable water and sanitation services.

WaterAid is independent and relies heavily on voluntary support.

This report was submitted as part of the Water and Poverty Dialogue Initiative at the 3rd World Water Forum, March 2003, Japan.

WaterAid also has a series of reports available that analyse WaterAid's experience in supporting integrated water, sanitation and hygiene education projects in developing countries. Reports in this series are:

WAMMA: Empowerment in practice
Hitosa Water Supply: A people's project
India: Making government funding work harder
Contracts or Partnerships: Working through local NGOs in Ghana and Nepal
Looking Back: The long-term impacts of water and sanitation projects



Doddi Chintalli, 50, collecting water from the Sarada river in Andhra Pradesh, India. Contaminated sources such as this cause water related diseases which kill over two million people every year.

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Summary

The Second World Water Forum endorsed targets to halve the proportion of people without access to safe, affordable water and hygienic sanitation by 2015. These targets are now internationally agreed as part of the Millennium Development Goals and the World Summit on Sustainable Development Plan of Implementation. This means that, in Africa, Asia, Latin America and the Caribbean, the number of people served by water supply must increase by 1.6 billion, while the number served by sanitation must increase by 2.2 billion. The targets present a huge challenge to the international community, as current progress is too slow to meet them. WaterAid believes they are achievable, but only if water supply and sanitation (WSS) resources are both used more effectively and increased. Some extra resources could come from overseas development assistance (ODA), especially if DAC donors increase their ODA allocation to the 0.7% of GNP recommended by the UN. Other broad strategies should include:

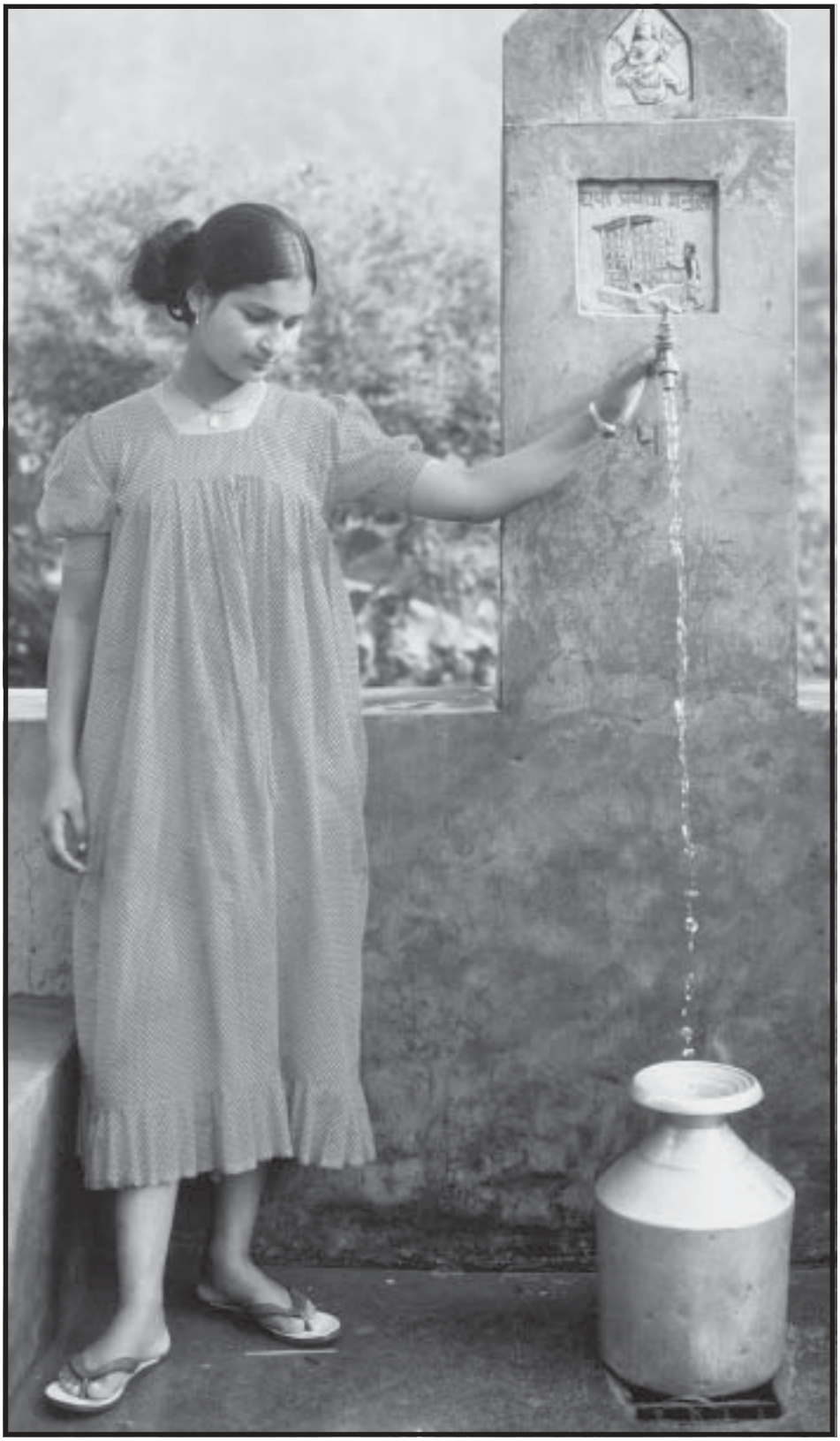
- Directing resources towards the greatest need and targeting them more effectively
- Improving cost-effectiveness, for instance by choosing low-cost technologies and ensuring sustainability of systems
- Allocating a bigger share of ODA and domestic public sector finance to WSS
- Improving WSS-related governance
- Integrating WSS into poverty-reduction strategies and national sustainable development plans, such as Poverty Reduction Strategy Papers: this means recognising lack of access as both a cause and a consequence of poverty
- Using resources to lever other forms of financing, e.g. local micro-credit schemes
- Developing pro-poor cost recovery mechanisms
- Working in partnership with civil society and communities to build on their commitment, resources and skills

Much of the current debate about WSS financing concerns the involvement of the international private sector. WaterAid believes that its potential in relation to delivering international WSS targets has been exaggerated, as it is appropriate mainly to middle-income and industrialised countries and to the urban areas in those countries. Lack of access to WSS is bound up with poverty on many levels, from state to household. Using public finance to boost international private sector investment is not necessarily the best way to serve the interests of poor people.

WaterAid maintains that the new international targets for water and sanitation are necessary to focus domestic and international resources to where they are most needed – to provide access to poor women, men and children to basic water and sanitation services in low-income countries. We also believe that the targets are affordable and achievable, provided the international community works hand in hand with national and local actors. International development aid would be better and more effectively spent if it were better coordinated and used to support local innovation, lever domestic resources, including household-level investments and micro-finance, and build the capacity of local actors, especially local governments.

WaterAid/Jim Holmes

Children collecting water in Rukingiri District, Uganda. Millions of children in developing countries are unable to attend school as they spend their days collecting water for their families.



WaterAid/Josh Hobbins

Maili Sunuwar, collecting water from a tapstand in Kami Tole on the outskirts of Kathmandu. Currently this is the only public tap for the entire neighbourhood. There is also only one public toilet here.

The 2015 WSS targets and their implications

At the beginning of the year 2000 1.1 billion people (one-sixth) of the world's population were without access to safe water and 2.4 billion people (two-fifths) lacked access to improved sanitation. Between 1990 and 2000, large numbers of additional people gained access to water supply and sanitation (WSS) services. However, because of global population growth, the numbers lacking access remained roughly the same throughout the period.[1] Current low coverage is an important poverty issue: when consulted, people affected by poverty consistently identify safe water as a high development priority.[2]

In response to the continuing gaps in WSS coverage, the UN Millennium Summit in 2000 added a target for safe water to the Millennium Development Goals. Two years after, a target for sanitation was agreed at the World Summit on Sustainable Development. There are now targets:

- to halve the proportion of people without access to hygienic sanitation facilities

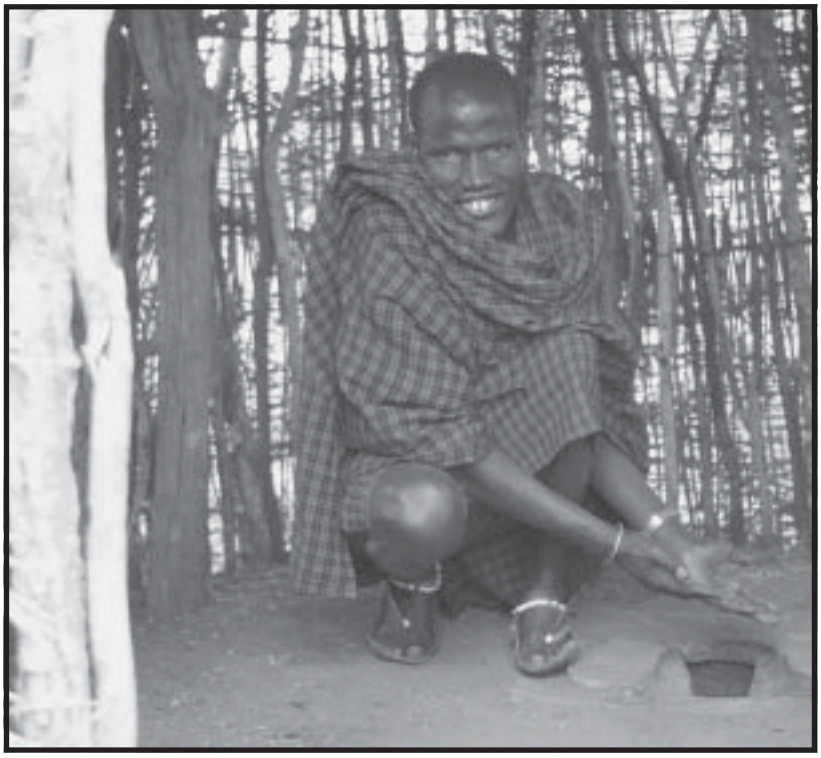
and

- to halve the proportion of people without sustainable access to adequate quantities of affordable and safe water

To meet the 2015 targets in Africa, Asia, Latin America and the Caribbean, the number of people served by water supply must increase by 1.6 billion (32%) and those served by sanitation must increase by 2.2 billion (59%). This presents a huge challenge to the international community. Current progress is too slow to meet these goals, and something needs to change. The targets can only be achieved by both using resources dedicated to WSS more effectively and increasing these resources. WaterAid also calls on the international community to focus existing and any new resources to providing sustainable access to poor men, women and children to safe water and sanitation services.

1 Global Water Supply and Sanitation Assessment 2000 Report, WHO and UNICEF Joint Monitoring Programme for Water Supply and Sanitation

2 For instance, the Uganda Participatory Poverty Assessment Process identified lack of access to safe water as a prime cause and consequence of poverty.



WaterAid/Alex Macro

A Masai man shows the pit latrine he constructed with WaterAid assistance in the Kiteto District of Tanzania. Simple designs such as this, using superstructures made from locally made materials, make latrines affordable for poor rural communities.

The financing gap

TABLE 1: FINANCIAL FLOWS TO THE INTERNATIONAL WATER AND SANITATION SECTOR IN 1996

Source	Amount (US$ billion)	Percentage
International		
External aid	5.0	20%
International private sector	2.0–2.75	7–11%
Domestic		
Public sector	18.0–22.0	70–75%
Private sector	1.0–2.0	3-8%
TOTAL	**US$27.0–30.0**	

Sunman 1999, Briscoe 1998

What are the financing implications of meeting the water and sanitation targets? To answer the question, we first need to know how much is spent at the moment. Funding for WSS in developing countries is derived from a large number of sources, including public sector expenditure, overseas development assistance (ODA) in the form of loans and grants, and investment by small-scale domestic private providers, the international private sector, local and international non-profit sectors, households and communities. With the exception of heavily indebted poor countries, mainly in sub-Saharan Africa, the bulk of WSS financing in developing countries comes from the domestic public sector, with external aid taking the second largest share.

There are many difficulties involved in measuring WSS financing worldwide. This is partly due to data inconsistency between countries, sectors and sources and ineffective monitoring. In many cases, analysts have been forced to rely on estimates, and have used a variety of approaches to do this, resulting in a broad range of estimates. WaterAid estimates the total annual expenditure for 1996 at between US$27—30 billion: see Table 1. This figure is in keeping with estimates from other sources.

Lack of clarity on current funding for WSS infrastructure and services is reflected in estimates for the future cost of meeting international WSS targets, which cover a very wide range. In addition to uncertainty about current spending levels, differing assumptions on factors such as levels of current access, type of technology and cost per unit all make it difficult to arrive at a consensus. Also, there is inconsistency about what is included in such estimates, and sometimes a lack of clarity about what has been included. The Global Water Partnership estimates that an additional US$30 billion per year will be needed.[3] Because the number of people lacking access to improved sanitation is much bigger than the number who lack access to improved water supply, US$17 billion of this needs to go to sanitation. These figures are based on estimates for rural and urban populations without water supply and sewered and networked sanitation. The rural cost per beneficiary estimates were drawn from Water and Sanitation Collaborative Council estimates in the Vision 21, Vision for Water and People report, and are for low-cost technology solutions.[4]

This estimate of US$30 billion per year makes the international WSS targets seem achievable, albeit challenging. Of course, global figures need to be refined and supplemented by national need analyses. As an example of how this might be done, WaterAid Nepal has calculated the

3 "Framework for Action" paper, Global Water Partnership, 2000

4 The estimated cost of urban sanitation provision ranged from US$300 per person for new sewerage systems to US$25 for a basic pit latrine. For urban water supply, costs ranged from US$50 per person per standpipe to US$200 per person for networked systems. Rural figures for sanitation and hygiene were estimated at US$10 per person, and US$15 per person for potable water. Vision 21, Vision for Water and People and Framework for Action, Water Supply and Sanitation Collaborative Council, 2000.

BOX 1: RESOURCE REQUIREMENTS IN NEPAL TO ACHIEVE THE 2015 WATER AND SANITATION TARGETS

WaterAid undertook a recent study in Nepal to estimate the water supply and sanitation coverage and financing requirements to achieve the 2015 targets. The study was presented and discussed at the Nepal Development Forum 2002 and is a contribution towards government deliberations over its 10th Fiscal Year Plan (FYP). Calculations and estimates arrived at were based on available official data over 10 years, which had many weaknesses. Nevertheless, WaterAid estimates that to achieve the 2015 targets, HM Government of Nepal would need to provide access to water supply to 717,000 people and to sanitation to 1.08 million every year.

The costs of providing for these people will vary according to the technology used and the terrain people live in, which varies between hills and mountains, the terai and its boulder zone, small towns and Kathmandu city. Rehabilitation costs also vary between rural and urban areas, but it is estimated that 76% of existing piped schemes require rehabilitation or major repair. In addition, a huge water infrastructure, the Melamchi Tunnel, is planned at a cost of US$58.6 million per year for eight years, to provide for Kathmandu valley's water needs in the future. All in all, the estimated total annual financing requirement to achieve the 2015 targets is $116.79 million for 2001–08. Without the Melamchi Tunnel costs, the annual requirement would be around $58.19 million. The financing gap, after available and planned resources are taken into consideration from 2001–2015 is US$35.74 million.

WaterAid Nepal, 2002

resources needed in Nepal: see Figure 1 on page 14 for a brief outline of the methodology used.

What approaches should policy-makers take in order to bridge the resource gap and make sure that international WSS targets become reality? The rest of this paper briefly outlines some broad strategies. In combination, they would enable the international community to deliver on these ambitious objectives.

Strategies for meeting the targets

REDIRECT RESOURCES TOWARDS REDUCING WATER POVERTY

Increasing WSS coverage would lead to a range of social and economic benefits, but its importance is reflected in neither development assistance nor domestic public funding to the sector. Two broad changes need to happen concerning public expenditure:

- *Intra-sectoral* priorities must change: financing within the water sector needs to be directed to where needs are greatest i.e. to the areas of the country and communities where poor women, men and children live.
- *Inter-sectoral* spending priorities need to change: a higher proportion of both domestic public sector resources and ODA needs to be directed to the WSS sector.

Change intra-sectoral priorities

At the international level, throughout the 1990s ODA for WSS was not channelled to those countries that needed it most:

- Least developed countries received less aid for WSS than did low-middle income countries
- Aid to WSS in least developed countries, as a percentage of total WSS aid, decreased
- Both Asia and Africa, where the vast majority of people as yet unserved by improved WSS live, received less WSS aid per head than Oceania or Europe[5]

At the national level, water strategies should prioritise addressing people affected by water poverty, the majority of whom live in rural areas. This involves both improving cost-effectiveness and targeting the water-poor.

5 Tangen, K 2001. "Recent trends in Official Development Assistance to Water and Sanitation" Internal WaterAid report

Marietta Remula, 56, collecting water from a WaterAid well with bucket and windlass in the remote Niassa province of Mozambique. WaterAid uses this technology instead of handpumps here as the spare parts are available and affordable to the poor rural community.

WaterAid/Jon Spaull

Prioritise cost effectiveness and sustainability

There are many examples of WSS programmes funded by ODA that achieve only modest impacts in return for very high expenditure. This contrasts with NGO-supported WSS interventions that often achieve as much, or more, with less funding. For instance:

- In Nepal, the World Bank-funded JAKPAS rural WSS project cost US$21,230,000 and reached 550,000 beneficiaries. The cost per beneficiary was US$38.60, compared to US$22.50 for WaterAid's rural water and sanitation programme in Nepal (WaterAid, 2000). In addition, the Melamchi Tunnel, which will supply more water than needed by the Kathmandu valley, means that up to 59% of investments planned by government in the next eight years will serve only 6% of the population in the country (WaterAid Nepal, 2002).
- In Mozambique, a Japanese-funded bilateral programme has cost US$13 million to create a total of 144 water points over two years. In contrast, WaterAid Mozambique, with an annual budget of about US$540,000, constructed 156 water points in 2002 alone. WaterAid's costs per head are about US$13.50, compared to a staggering US$180 for the Japanese-funded project. The latter's high costs can be explained partly by an insistence on drilling boreholes and the use of international contractors, rather than using local contractors to dig wells by hand, where appropriate.[6]

These comparisons suggest that the high cost of some WSS programmes represents a barrier to fulfilling WSS targets, and needs to be challenged. The Development Assistance

BOX 2: TARGETING RESOURCES BETTER: THE CASE OF SALIMA DISTRICT, MALAWI

WaterAid undertook a recent study into how the 2015 water targets could be achieved in Salima district in rural Malawi. Using the Ministry of Water Development density standard of four water points per 1000 people, WaterAid calculated how many of the enumeration areas in the district were adequately served (defined as having achieved the standard). On the basis of the calculations, and estimates of the cost of technology used (assuming mechanically drilled boreholes, which account for 85% of technology used, cost $4,200 and shallow wells with handpumps, which account for 4% of technology used, cost $650), the following estimates were arrived at:

- US$2.0 million has been spent on installing new water points since 1998
- US$1.0 million has been spent in a poorly targeted way
- US$0.9 million is needed to bring the currently poorly served enumeration areas up to the MoWD density standard if the existing ratio of technology is used (technology costs only)
- US$0.4 million is needed to bring them up to the standard if the technology most appropriate to the aquifer, often hand augers or shallow wells, is used (technology costs only)

The poorest served 10% of areas in Salima have an average water point density of around 0.5 water points per 1000 people. They will need to increase their density eightfold in order to reach the MoWD standard. Using the existing system of resource allocation, total district expenditure would have to increase eightfold to US$16 million to meet the standard in these areas.

If the current rate of investment continues i.e. US$2.0 million per four years, US$16 million represents 32 years of investment. As the life expectancy of an Afridev pump is 10 years, and therefore money also needs to be allocated to replacing existing pumps, Salima district is not on course to ever achieve the millennium goal.

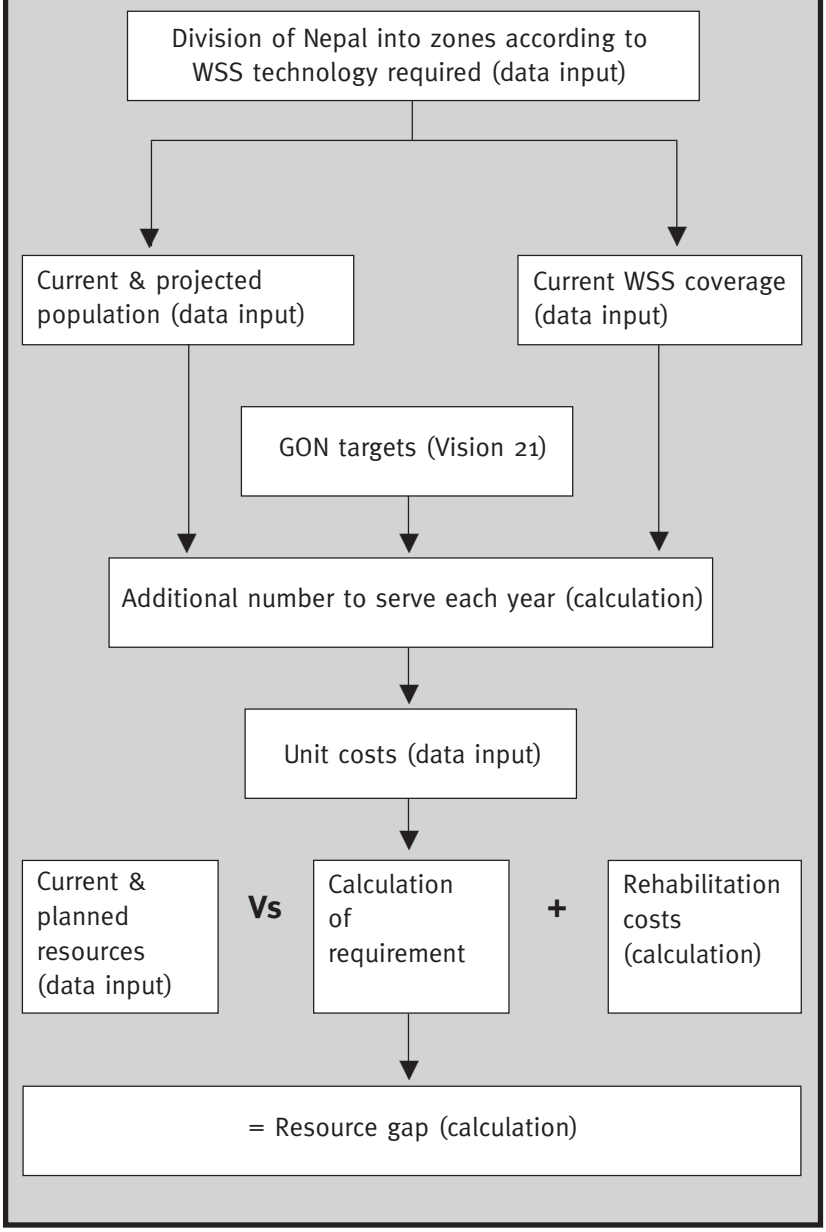
However, if the current rate of investment continues and the method of allocating resources changes so it targets those most in need, it should be possible to achieve the MoWD recommended density levels in four years, given existing district capacities. This time frame takes into account the need to channel some of the investment into capacity building. The emphasis in a place like Salima must be on developing a strategic and better targeted approach to resource allocation and developing the capacity of the District Co-ordination Team to effectively manage the process.

Stoupy and Sugden 2003, forthcoming

6 Personal correspondence with Ned Breslin, WaterAid's country representative in Mozambique and Erik Harvey, WaterAid's programme director in Zambezia province, Mozambique.

FIGURE 1: ESTIMATING THE WSS RESOURCE GAP FOR NEPAL

WaterAid Nepal recently carried out a study to calculate the extra resources needed to meet the 2015 targets. The study proceeded through the following sequence of steps:



7 "A Better World for Us All – Progress towards the International Development Targets". A joint publication by IMF, UN, OECD and World Bank Group, June 2000

Committee of the OECD reported in 2000 that only 1.7% of all WSS aid (in 1996-97) was earmarked for programmes based on sustainable, affordable low-cost technology, and therefore by definition, was targeted at the poor. This type of intervention also receives a very small proportion of domestic public sector investment, ranging from 1% in sub-Saharan Africa to 3% in Latin America and the Caribbean.[7]

Value and sustainability should be prime considerations for any WSS investment. High-cost, capital-intensive solutions may not be appropriate. They should always be appraised in comparison with a range of low-cost technologies that may be more suited to the demands that will be placed on them. To make inroads on water poverty, technologies need to combine the following qualities: a good standard of service, affordability even by people on very low incomes, and functionality where institutional arrangements are weak.

Improve needs analysis and targeting

If WSS expenditure is to be pro-poor, water sector plans have to be based on needs analysis and targeting. Priority should be given to expanding services to those who lack safe WSS, rather than improving services to populations who already have access. Within towns and cities, resources should be directed to low-income slum districts rather than better-off communities. WaterAid Nepal recently developed a tool to calculate the amount of resources required to meet international WSS targets there. The tool enables policy-makers to differentiate between areas and zones (e.g. urban/rural, lowlands/hills and mountains) on the basis of factors such as existing coverage, future population, type of technology and unit costs. Resources can then be targeted in accordance with need. See Figure 1 for an outline of the methodology.

Improve WSS-related governance

There is a mismatch between the priority poor people themselves give to WSS and the way developing country governments allocate their

funds, both among competing sectors and within the water sector. This highlights a failure of governance. Civil society organisations and community-based organisations in developing countries lack the means to influence policy decisions or scrutinise WSS spending, and have no way of holding their governments accountable. Transparency in the decision-making process, and the availability of information, are crucial to maintain public oversight and to minimise corruption, avoid wastage and build credibility in the governance system. These are all prerequisites for good financial functioning, including people's willingness to pay for WSS services.

Decentralised participatory budgeting and social auditing by stakeholders could be used to enhance WSS governance. Civil society organisations are often well placed to champion the interests of poor people and develop their ability to oversee the use of public funds. ODA to enhance this capacity should reduce the amount of funding lost to corruption and wastage.

Change inter-sectoral priorities

In general, developing country budgets do not prioritise spending on WSS. WSS budgets struggle for their share of national resources, which are often severely limited in any case due to heavy national debt burdens. Even within the area of basic social services, which as a whole receives only 13% of government budgets,[8] WSS tends to lose out to other priorities such as health and education. WSS infrastructure also fares badly compared to other types of infrastructure. For instance, in 1996, WSS received only about 11% of total infrastructure investments to developing countries, including electricity, roads, telecommunications and water. This translates to about 0.4% of developing countries' GDP. Each national case is different, but in general areas where public spending might be reduced in order to fund improvements in WSS include subsidies for the non-poor and military expenditure.

TABLE 2: WATER AND SANITATION SECTOR FUNDING FROM MAJOR AID DONORS, 1996[10]

Donor	WSS investments (US$ million)	WSS investments as a percentage of total aid
DAC members	3034	6.6%
Asian Development bank	609	11.3%
World Bank	366	1.7%

As for ODA, funding for WSS represented only a small proportion of funding from major donors in 1996: see Table 2. However, while total DAC aid flows declined during the 1990s, WSS did manage to increase its share from 2.2% in 1990 to 6.6% in 1996.[9] However, only 1.7% was spent on low-cost technologies that directly address poor people's needs.

INCREASE DEVELOPMENT AID OVERALL AND THE ALLOCATION TO WSS IN THAT INCREASE

While aid flows to the developing world as a whole declined in the 1990s, aid to the WSS sector increased from about 5% of total ODA in 1990 to about 10% in 1997.[11] However, with increasing population growth and urbanisation, the sector's total investment needs are rising. Bilateral donor funding for WSS, through DAC, represents over half of total development aid for WSS.[12] The potential for increases here is enormous. In 1998, DAC members spent on average only 0.24% of GNP on development aid. If they were to increase their development aid to

8 UNDP et al (1998) "Implementing the 20/20-Initiative – Achieving universal access to basic social services"

9 WHO and UNICEF "Global Water Supply and Sanitation Assessment 2000 Report"

10 "Financing water and sanitation: key issues in increasing resources to the sector". WaterAid briefing paper, November 2001

11 Ibid.

12 Ibid.

BOX 3: IMPROVEMENTS TO POOR PEOPLE'S LIVES FROM WATERAID-FUNDED RURAL WATER SUPPLY PROJECTS

Between 1999 and 2000, WaterAid carried out participatory impact assessments of water supply programmes in Ethiopia, India, Ghana and Tanzania in the early 1990s. Health, livelihoods, social relationships and people's self-esteem all benefited. Specific impacts included:

Livelihoods and incomes

- Livestock populations increased
- More water is now available for cola nut and palm oil processing
- The cash saved from buying water is now available for other daily needs such as school uniforms

Socio-cultural life

- The amount of women's time available for childcare and family life increased
- More time is available for religious observance and ceremonies, e.g. weddings and funerals

Health and hygiene

- Significant reductions have been seen in diarrhoea and other WSS-related diseases
- Menstrual hygiene has improved
- Incidences of snakebites have reduced

Psychological impact

- Women are under reduced stress and anxiety due to long periods away from home collecting water and sexual harassment/abuse from well-owners
- There is enhanced self-esteem from having built water points, e.g. for Dalits in India

Education

- There is improved attendance and punctuality and lower drop-out rates (especially for girls)
- Teachers are more willing to come and work in communities with water and sanitation

Gender issues

- Women's savings and credit schemes have been set up, arising from increased confidence linked to water project participation
- Women have an enhanced social status, due to new livelihood skills arising from water availability

0.7% of GNP, in accordance with UN recommendations, for only two years, this would eliminate the debt of all the Highly Indebted Poor Countries.[13] Developing countries would then be in a position to allocate more resources to basic social services, including WSS.

At the UN Financing for Development Conference in March 2002, bilateral donors in Europe agreed to increase development assistance to 0.39% of GNP by 2006. WaterAid calls on donors to increase their allocations to WSS within this general increase. WSS aid expenditure must prioritise sustainable services to the poor and the improvement and building of capacity of governments, local governments, civil society and local private sector to plan, deliver and monitor these services.

PUT WSS ON THE POVERTY REDUCTION AGENDA

WSS funding priorities are unlikely to change in favour of pro-poor spending unless policy-makers and planners recognise the multi-dimensional links between lack of access and poverty. The impact of inadequate WSS falls mainly on the poor. Many low-income households are badly served by the formal sector and have to rely on their own, often inadequate, arrangements to meet basic WSS needs. Their lack of access to improved WSS is both a cause and a consequence of poverty, and WSS interventions can play a powerful role in assisting them to escape poverty.

Improvements in health and reductions in the amount of time spent collecting water are often cited as the two most obvious benefits of improved water supply. According to the World Bank, an estimated 10,000 people die every day from WSS-related diseases, and thousands more

suffer from a range of debilitating illnesses.[14] Before a WaterAid-funded water supply programme in Ethiopia, women in the community reported spending five to eight hours every day fetching water.[15]

Many other economic and social benefits flow from access to improved WSS, some of them indirect consequences of health improvements and cuts in water collection time. Box 3 highlights some of the long term poverty and social development impacts of WaterAid-funded water supply projects in India, Ethiopia, Ghana and Tanzania. The researchers found that WSS projects can have significant and often unexpected positive impacts on people's lives.

Box 6 on page 21 on the social and economic impacts of an urban sanitation programme in Karachi gives further examples. In spite of such evidence, many agencies tend to regard WSS as an aspect of infrastructure, rather than a priority that belongs firmly on the poverty reduction and social development agenda. This is reflected in the way WSS programmes often neglect participation and community development, even though lack of user participation in selecting technologies has been identified as a major constraint to WSS development.[16]

INTEGRATE WSS MORE FULLY INTO PRSPs

The lack of connection between WSS and poverty reduction in the minds of many planners and policy-makers can be seen in Poverty Reduction Strategy Papers (PRSPs). These were conceived in order to strengthen the link between debt relief and poverty reduction, by providing frameworks for prioritising budget allocations. In principle, they provide an important opportunity to put WSS centre-stage in anti-poverty plans, thereby unlocking resources for the sector from both domestic governments and official development aid. A recent study by the World Bank found that WSS was the sector with the most potential for poverty reduction, when incorporated into the PRSP development process.[17]

Yet, despite its great potential for reducing poverty, WSS tends to be given a relatively low priority in PRSPs. This is highlighted in a recent study by the Overseas Development Institute and WaterAid.[18] The first phase of the work has looked at the PRSPs for Malawi, Madagascar, Kenya, Zambia and Uganda. Researchers assessed the degree of priority given to WSS in both the PRSPs themselves and the processes leading up to them. They noted the following key points:

- Funding allocated to WSS was low in three of the five study countries (Kenya, Zambia and Madagascar). Except for Uganda, the level of resources allocated does not reflect its true poverty significance, and/or resources are badly targetted. There are also inconsistencies within the PRSPs themselves in the way they deal with WSS, with fund allocations failing to reflect the degree of importance they attribute to the sector.
- In Kenya, Malawi and Zambia the emphasis is on water as an aspect of infrastructure rather than an aspect of the quality of life: this is reflected in indicators that focus on physical targets rather than social, health and economic outcomes.
- Several PRSPs include WSS activities that are inappropriate in a pro-poor strategy.

13 Woodward, D. (1998) "Drowning by Numbers – The IMF, The World Bank and North-South Financial Flows" Bretton Woods Project, September

14 www.worldbank.org/poverty/strategies/chapters/water

15 "Looking Back: The long-term impacts of water and sanitation projects, WaterAid 2001

16 WHO and UNICEF, ibid.

17 http:www.worldbank.org/energy/energyweek/2002

18 "Watsan and PRSPs: Integrating WatSan activities within PRSP development and implementation" July 2002 Overseas Development Institute and WaterAid, UK. The findings bear out an earlier desk-review by the UNDP/World Bank Water and Sanitation Programme: "Water supply and Sanitation in PRSP Initiatives – A Desk Review of Emerging Experience in Sub-Saharan Africa" 2002 WSP Nairobi

- Sanitation tends to be given a lower priority than water supply, even though levels of existing access are lower even than for water supply.
- Links between WSS and other sectors are poorly articulated.
- Co-ordination between WSS and water resources management is weak in all the study countries apart from Uganda.

Of the five plans studied, Uganda's gives the best idea of the role PRSPs could play in delivering international WSS targets. Uganda's Poverty Eradication Action Plan, which has been incorporated into the PRSP process, has facilitated participatory planning, transparency and accountability at different levels, has brought WSS issues into the limelight and has started to address gaps in WSS coverage through sector reforms and poverty-targeted resource allocations. However, there are weaknesses too: for instance, almost 50% of water requirements in the plan are not met in the accompanying Medium Term Expenditure Framework.

A large number of countries that have prepared PRSPs or interim PRSPs are in sub-Saharan Africa. One of the reasons WSS has been so poorly represented in PRSPs to date may be that many African national governments rely on bilateral overseas donor support for their WSS sectors. At present at least, this tends to fall outside PRSP frameworks. For instance, the Ugandan government's contribution to WSS is marginal, and in some cases is declining, despite the freeing up of government resources due to debt relief under the Heavily Indebted Poor Countries (HIPC) initiative. Twenty-eight percent of people as yet unserved by improved water supplies, and 13% of those who lack access to improved sanitation, live in Africa,[19] so the potential of PRSPs to help deliver the water and sanitation goals is obvious. The PRSP framework could be used to develop national water strategies that prioritise WSS as an integral element of national development plans, linked to funds available through HIPC debt relief. Instead, it looks as though WSS initiatives in some of the world's poorest countries may continue to proceed in a marginalised, ad hoc and fragmented manner.

WaterAid research indicates that where civil society was active, networked and capable of advocating the interests of the poor within the PRSP deliberation processes, water supply and, to a lesser extent, sanitation were prioritised. Additionally, where government planning and finance ministries opened up the process and engaged with other stakeholders, there was more scope in ensuring that water and sanitation were better addressed within the PRSPs. In this light, WaterAid calls on governments to continue to open up the processes related to the PRSPs, and other development planning processes. We call on bilateral donors to help finance the opening up of processes, as well as supporting civil society networking and capacity building for pro-poor advocacy. (WaterAid, 2002)

EXPLORE WAYS TO LEVER OTHER FORMS OF LOCAL FINANCING

Policy-makers could enhance the impact of WSS resources by looking at the potential to lever other sources of finance, particularly user contributions and household and community investments. Small-scale informal domestic investments, from households, communities, water-vendors and so on, account for 3-8%

19 WHO and UNICEF, "Global Water Supply and Sanitation Assessment 2000 Report"

of total financing to WSS, roughly the same as contributions from the international private sector. The ability and willingness of households and local communities to pay for WSS needs to be better recognised as a strength that can be built on.

In addition, locally based financial mechanisms, such as micro-credit schemes, can be an important source of finance both in rural and urban areas, and can assist the rapid development of low-cost, decentralised services. The creditworthiness of such schemes, due to the low transaction costs and peer pressure for repayment that characterise them, can also attract domestic bank loans. Concessional finance to build the core of loan funds, or to refinance them, is a very strategic use of donor resources. Box 5 on the Soozhal Initiative briefly outlines how an NGO initiative in Tamil Nadu, India, was able to lever substantial user contributions from relatively small government subsidies and donor financing, as part of a government-led "Total Sanitation Campaign". The success of the micro-credit element led to offers of soft loans for sanitation investments from a local bank, which was unprecedented. Donors should prioritise support to NGOs, and other institutions that assist local communities to develop and run micro-finance schemes for WSS.

DEVELOP MORE POOR-SENSITIVE COST-RECOVERY MECHANISMS

If the 2015 targets are to be met, the sector also needs to become more sophisticated in the way it recovers costs from users. Undeniably, water service providers need financial sustainability in order to cover operation, maintenance and capital costs. Receiving income from

BOX 4: TARIFF OPTIONS RECOMMENDED BY NGOs IN KATHMANDU

The setting of tariff levels is a balance between financial need and political judgment. They should not be set on financial needs alone, as they can trigger events like that in Cochabamba, but neither can they be be set based only on political considerations. There is a number of arguments for both low and high tariffs that must be weighed up. In Kathmandu, the arguments can be summarised as follows:

Tariffs should be kept low to:	**Tariffs should be raised to:**
Allow poor people to meet their basic water requirements at a non-exorbitant cost, i.e.at a maximum of 3% of their income	Allow the utility to function without subsidy from government and thus have autonomy in its operations
Relieve the poor of the greater burden they carry when sharing a connection with neighbours in the case of block tariffs	Raise revenue to pay for maintenance, rehabilitation and expansion of the network
	Discourage waste of water, especially in a situation of water shortage for many households

The NGO Forum in Kathmandu proposes a two-tier water tariff that recognises both that water is a human right and that there is the need to manage it as an economic good.

- Water priced as a basic requirement – consumers should pay only the operation and maintenance costs for the first six cubic metres of water used per household per month. This would amount to around Rs 180 (US$2.40), which is equivalent to 3% of the mean income of poor households.
- Water priced as an economic good – on all consumption in excess of six cubic metres per household per month the consumer should pay the full costs, which include operation and maintenance, financing, capital repayment, cross-subsidy and regulation costs, and the levy to Melamchi Valley residents.

The tariff structure could meet the objectives of social equity as well as utility effectiveness. Limiting the cost of basic water requirements to 3% of poor households' mean income is reasonably pro-poor, and can be supplemented by public tap-stands. One objection is that it makes billing more complex and increases the potential for corruption. However, at present there are as many as 60 different tariffs, depending on class of consumer, size of pipe, and volume consumed. The proposal simplifies the system for domestic users.

A further objection is that by charging only for operation and maintenance costs, any operation trying to make a profit will be loath to supply poor households where the cost of installing a connection cannot be reclaimed. Government must therefore supplement this by subsidising those who cannot afford to pay for the connection costs.

(Etherington, Wicken and Bajracharya 2003, forthcoming)

BOX 5: THE SOOZHAL INITIATIVE: A SELF-HELP RURAL SANITATION MODEL IN TAMIL NADU, INDIA

The Indian government has launched a series of Total Sanitation Campaigns in rural areas. One of the chosen districts is Cuddalore in Tamil Nadu. At the outset of the programme, sanitation coverage was less than 6%, well below the national rural average. Soozhal, a group of local NGOs, succeeded in increasing this to 25% in their target area within two years. The key elements of Soozhal's strategy were:

■ **Establishing effective financial arrangements:**

Two financial instruments complement government subsidies of Rs 500 available to households for latrine construction: bridging loan funds to cover working capital requirements and a revolving loan fund. Women's micro-finance schemes have raised more than Rs 1,100,000 (approximately US$23,000) for the revolving loan funds, complementing interest free seed money of Rs 2,200,000 (US$ 45,650) from the Dutch NGO Simavi. WaterAid provided the bridging loan funds of Rs 200,000 to each cluster of 10 panchayats (the total bridging fund was US$ 45,000). It is notable that local banks that in the past would only fund micro-finance for traditional income-generating activities are now interested in lending for sanitation because of the low default rate and high turnover of the Soozhal micro-finance scheme. For instance, the NABARD government bank is now offering credit at annual interest rates as low as 4% to households for sanitation.

■ **Community capacity building:**

Soozhal worked with over 650 women's self-help groups, with a total of 8,465 members, and facilitated the creation of another 85 groups as part of the water and sanitation initiative. Group members were trained as Hygiene Communicators, ran micro-credit schemes and oversaw latrine-building projects in schools.

The programme provides a model of how to optimise the use of limited resources from both domestic governments and external development aid in order to benefit large numbers of low-income households. Small government subsidies and NGO seed funding have levered considerable private household contributions that would not be sufficient in themselves to gain access to improved sanitation. The initiative also shows that low-income rural communities, if mobilised and well organised, can become empowered to take WSS improvements into their own hands.

Soozhal and WaterAid 2003

customers has an important part to play in this. However, the recovery of capital costs and, in some cases, even operation and maintenance costs is beyond the capacity of many people living in poverty, even where low cost technologies are used. This is especially true for large networked technical solutions in major urban settlements. In the context of the water and sanitation targets, it would be self-defeating to allow cost recovery objectives to become a barrier to poor people's access to WSS.

A more nuanced approach to cost recovery would involve the recognition that users do not necessarily all have to pay the same amount for their services, and that the cost of each user's service does not have to be recovered from that individual user. Options include transparent subsidy arrangements from public funds and cross-subsidisation from wealthier to poorer users. The basic principle should always be that, where the poor cannot afford to pay the full cost of WSS, tariff systems should facilitate social targeting. Beyond this, every situation needs to be considered in its own right, in order to arrive at tariff structures and pricing policies that do not disadvantage poor people and hold back advances.

WORK IN PARTNERSHIP WITH CIVIL SOCIETY AND COMMUNITIES

WSS programmes should seek to bring about qualitative change for households and communities rather than simply focusing on physical output targets, such as the number of water points built. This involves building the capacity of communities, local government and other local stakeholders. The Soozhal Initiative outlines how village-based women's groups played a crucial role in delivering improved sanitation and hygiene education to thousands of low-income rural households in Tamil Nadu. Similarly, Box 6 highlights the

remarkable success of the Orangi Pilot Project (OPP) in Karachi in mobilising a poor urban community to address its own sanitation needs. OPP is an impressive demonstration of how poor urban communities can contribute to the development of even complex and large-scale infrastructure projects if planners give them the chance. Its achievements challenge a WSS paradigm that is preoccupied with technical solutions, hardware and physical targets, while downgrading the community development aspects of WSS.

THE ROLE OF THE INTERNATIONAL PRIVATE SECTOR IN DELIVERING INTERNATIONAL WSS TARGETS

Much of the current debate on financing WSS is concerned with the pros and cons of boosting private sector involvement. There are several reasons why the international private sector, as opposed to domestic private sectors, is unlikely to play a key role in meeting the 2015 water and sanitation goals, particularly in low income countries where the majority of those without access to basic water and sanitation live:

- Foreign direct investment (FDI) tends not to favour the low-income countries where the majority of people currently unserved by WSS live.
- Historically, the water industry has been capital intensive, with low profitability and long delays before investors can expect to make profits. In the developing country context, WSS investment is also subject to risk from factors such as exchange fluctuation and political instability. This adds up to an unattractive investment environment.
- In middle-income developing countries that are successful in attracting FDI, such investment is unlikely to be directed towards poor areas, such as rural districts, or disadvantaged sections of the urban population, such as slum-dwellers and squatters, because of the difficulty of recovering costs. Where international private operators have been successful at serving the urban poor, this has been done in cooperation with local intermediaries such as local NGOs and community-based people's organisations.
- Any substantial increases in international private sector investment in WSS are likely to be

BOX 6: THE ORANGI PILOT PROJECT IN KARACHI: DELIVERING IMPROVED SANITATION THROUGH COMMUNITY EMPOWERMENT

The OPP began in one of Karachi's most blighted districts in 1980. Within a few years it had evolved to become an autonomous and self-supporting grass roots movement devoted primarily to improving sanitation in the settlement. OPP depends not on external donors, but on the commitment, skills and resources of its urban poor constituents. They have used local materials and labour to build hundreds of kilometres of low-cost underground sewers and 409 collector sewers. By April 2001, these had benefited 92,184 families, about 90% of the whole settlement. Community members have themselves invested Rs. 82,141 million (about US$1,386,000) in their sewerage system.

OPP uses a community-empowerment approach, assisting its members to undertake and finance development activities themselves. Health indicators and infant mortality have improved. In addition, mobility within the community is now greatly enhanced, because of the removal of offensive and dangerous open sewers. This has brought about a range of economic and social benefits, such as boosts to home-based enterprises and small-scale trading, better recreation for children and adults and even improved marriage prospects for young women. As an example of the cost-effectiveness of the OPP approach, in the early 1990s it was successful in reducing costs for an Asian Development Bank-funded project in its area from Rs 1,300 million (about US$22 million) to Rs. 36.2 million (about US$ 615,000).

Zaidi, 2001

WaterAid/Somesh

Members of a women's self-help group in Visakhapatnam District of Andhra Pradesh, India. WaterAid India helps poor communities to establish self-help groups that operate micro-credit schemes that partly finance water and sanitation projects.

heavily dependent on debt financing, with the associated drawbacks of debt build-up, which user charges are unlikely to offset.

- If low-income countries compete for FDI, for instance by offering tax concessions and weakening restrictions on profit remittances, this will tend to reduce the overall benefits of FDI to the host countries.

The water and sanitation targets identified by the UN Millennium Summit and the World Summit on Sustainable Development are achievable and affordable if the international community works hand in hand with national and local actors. Services to the poor must be at the heart of all efforts to achieve these targets. To do this, acceptance of innovation, especially by communities and poor people themselves, open transparent processes for planning and monitoring, and a willingness to co-ordinate better, supported by funding for institutional capacity are in order.

Sewage pipes that will form part of the trunk sewer line constructed by poor communities with WaterAid support in Faislabad, Pakistan.

WaterAid/Martin Punaks

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WaterAid/Jim Holmes

The Second World Water Forum endorsed targets to halve the proportion of people without access to safe, affordable water and/or hygienic sanitation by 2015. These targets are now internationally agreed as part of the Millennium Development Goals and the World Summit on Sustainable Development Plan of Implementation.

The targets mean that in Africa, Asia, Latin America and the Caribbean the number of people served by water supply must increase by 1.6 billion, while the number served by sanitation must increase by 2.2 billion.

The targets present a huge challenge to the international community, as current progress is too slow to meet them. However, WaterAid believes they are achievable if water supply and sanitation (WSS) resources are both used more effectively and increased. This report suggests strategies that should be adopted in order to achieve the targets.

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