

Meeting Target 10: How Much Will It Cost?

JUST WHAT IS THE COST OF MEETING TARGET 10 in Asia and the Pacific? The price tag is surprisingly affordable. A regional, recurrent investment of just \$8 billion a year would ensure that Asia and the Pacific meets Target 10 and continues to expand coverage beyond 2015 (Table 6). The greatest proportion of the bill belongs to the South and Southwest Asia subregion, followed by East and Northeast Asia, where the greatest numbers of unserved people are found in India and the PRC. And because Asia bears the majority of the world's poor, this region achieving Target 10 represents a significant achievement toward attaining the global target. The achievability and affordability of meeting Target 10 in Asia and the Pacific raises an interesting possibility: Political leaders can afford to confidently set more ambitious targets than the MDGs and advance their countries toward greater levels of social and economic development. It is not a matter of possibility, but a matter of willingness.

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The costs of providing access to safe water and adequate sanitation vary from high, when high standards are applied and sophisticated technology is used, to substantially lower costs, when simple technology that demands low maintenance is used. In this analysis, improved water supply and sanitation refers to low technology improvements, such as those discussed in previous chapters, which would satisfy Target 10. A WHO study¹⁹ on the costs and benefits of water and sanitation improvements at the global level presented cost estimations on the following four interventions:

1. Intervention 1—Reaching Target 10: Halving the proportion of people without sustainable access to both safe water supply and improved sanitation (water and sanitation MDG targets);

2. Intervention 2—Improved Water Supply and Sanitation for All: Sustainable access to safe water and improved sanitation for everyone;

3. Intervention 3—Improved Water Supply and Sanitation for All

Plus Disinfection: Providing disinfection at point-of-use over and above increasing access to improved water supply and sanitation²⁰; and

4. Intervention 4—Piped WSS for All Plus Primary Treatment: Providing regulated piped water supply in house and sewage connection with partial sewerage for everyone.²¹

According to the WHO report, the funding or investment requirements for these four interventions cover:

■ **Investment costs:** Planning and supervision, hardware, construction and house alteration, protection of water sources and education that accompanies an investment in hardware.

■ **Recurrent costs:** Operating materials to provide a service, maintenance of hardware and replacement of parts, emptying of septic tanks and latrines, regulation and control of water supply, ongoing protection and monitoring of water sources, water treatment and distribution, and continuous education activities.

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The investment costs were annualized and added to the recurrent costs to obtain final total costs per intervention per year, based on the life of the technology and a discount rate of 3%.

Each intervention and its related costs and impact are discussed below. Table 6 presents the cost estimations for each of the four interventions by subregion.

Intervention 1—\$8 billion annually. The intervention that would satisfy Target 10 requires the least amount of annual recurring investment at \$8 billion. These cost figures reflect the definitions of improved and safe water supply and sanitation given in the previous chapters, with adequate but not high cost technologies that involve, for example chemical water supply treatment or primary wastewater treatment. There are many examples where lower cost technologies can be used, with this particularly true for rural areas, where family labor is often used and where local entrepreneurs make materials and construct services themselves. The cost estimates used in this analysis and elsewhere can be found in Hutton and Haller (2004).²² The WHO report presents the annual costs of each type of improved technology per person reached. Table 7 presents the figures for Asia. From Table 7, one can see that a range of options are available, but that sanitation interventions are clearly more costly, with the cheapest option of a small pit latrine starting at almost \$4. Most of the options for improved water supply are well under \$4, starting as low as \$0.25. The investment levels for sanitation, however, are still affordable. Yet, the comparative figures provide a good insight as to why the rates of change for sanitation coverage continue to lag behind water supply coverage rates.

Intervention 2—\$16 billion annually. To provide access to improved water and sanitation services for all the unserved people of Asia and the Pacific would cost around twice as much: \$16 billion per year until 2015. This is again a large but not impossible figure that is achievable given the nature of economic development and social change in Asia and the Pacific.

Intervention 3—\$17 billion annually. The third scenario, which involves providing household water treatment using chlorine and safe storage in addition to improved water and sanitation services for all, would cost an additional \$1 billion on top of improved water and sanitation costs, taking the regional cost to \$17 billion. This again is affordable for most parts of the region.

Intervention 4—\$85 billion annually. Finally, providing access to regulated piped water supply in house with quality monitoring and sewerage connection with partial treatment of sewage for all households would require a total investment of \$85 billion per year. This higher level of investment reflects the much higher levels of service provided and, in consequence, the necessity of investing for much greater numbers of people, as many who presently have access to less sophisticated technologies would need to be provided with the more expensive connections.

The key message from this is clear—for Asia and the Pacific as a whole, the levels of investment needed to achieve the MDGs are affordable. The key is how to stimulate these investments from as wide a range of sources as possible, including consumers themselves and the private sector, as well as from governments and the international community. Indeed, it is likely that the actual levels of investment made in water supplies and sanitation in the region will be far greater than this as many people will reflect their new prosperity in decisions to invest in far higher levels of technology and service than those represented by the basic cost calculations made here. Of course, that more is spent does not mean that more people are reached and it is the poor, those who are not in a position to choose expensive solutions, whose needs are the greatest cause for concern. The majority of Asians can and will look after themselves. Governments and the international community must focus their attention on those sections of society who cannot provide for their own needs under existing service delivery systems.

Table 6: ANNUAL COSTS FOR WATER SUPPLY AND SANITATION DEVELOPMENT IN ASIA AND PACIFIC REGION, year 2000
(in \$ billion)

Subregion	MDG Target	Access for All	Access for All plus Disinfection at Point of Use	Regulated, In-House Piped WSS Connection
	Intervention 1	Intervention 2	Intervention 3	Intervention 4
East and Northeast Asia	2.99	5.99	6.38	24.55
North and Central Asia	0.20	0.39	0.49	4.12
Pacific	0.02	0.04	0.05	0.24
South and Southwest Asia	3.95	7.90	8.40	40.83
Southeast Asia	0.96	1.91	2.08	15.55
Total	8.11	16.24	17.40	85.28

Source: Data derived from Hutton, G. and Haller, L. Evaluation of the Costs and Benefits of Water and Sanitation Improvement at the Global Level. Geneva: World Health Organization, 2004. (WHO/SDE/WSH/04.04)

Table 7: ANNUAL COSTS FOR IMPROVEMENTS ON A PER-PERSON-REACHED BASIS

Target 10 Indicator	Type of Improved Technology Implemented	Cost in \$ (2000) per Person Reached
Improved water supply	Standpost	4.95
	Borehole	1.26
	Dug well	1.63
	Rain water	2.51
	Disinfected	0.26
	Regulated piped water in-house (hardware and software)	9.95
	Regulated piped water in-house (software only)	5.97
Improved sanitation	Septic tank	9.10
	VIP	5.70
	Small pit latrine	3.92
	Household sewer connection plus partial treatment of sewage (hardware and software)	11.95
	Household sewer connection plus partial treatment of sewage (software only)	5.28

Source: Hutton, G. Haller, L. Evaluation of the Costs and Benefits of Water and Sanitation Improvement at the Global Level. Geneva: World Health Organization, 2004. (WHO/SDE/WSH/04.04)

The achievability of these investments raises the possibility of political leaders across the region setting targets that are more ambitious than those found in the MDG targets: remove forever the misery and adverse economic consequences of inadequate water and sanitation in the region that contains the majority of the world's poor. Indeed, some governments have already set targets that are more ambitious than the MDGs: for example, Viet Nam's development goals aim to exceed the MDG targets by 2010 and provide safe water and improved sanitation for the whole country by 2020.

In the international community, the central importance of improving access to safe and adequate water supplies and improved sanitation for poverty reduction is recognized, and, indeed, is one of the most fre-

quently cited issues in the wider debate on poverty reduction. There are concerns, though, that this recognition of water's importance is not being matched by increased commitments of funds for the sector. Indeed, there is evidence of reversing trend, with declining levels of funding support from the international community.²³ There are still other concerns that the sector is neglected in the preparation of poverty reduction strategy papers, which set key priorities in national poverty reduction strategies and provide a framework for donor support²⁴. The following chapters build a case for investing in water by looking at the sheer economic benefits water brings to all major characteristics of poverty. The analysis shows strongly that reducing poverty increases economic productivity, and at levels that far surpass the initial investments.

