

Sanitation in East Asia: Questions and Answers

What is meant by improved sanitation?

Improved sanitation, as measured by MDG 7, refers to the safe management of human excreta. Specifically, it should prevent human contact with human feces. Improved hygiene refers to the consistent practice of a set of behaviours, such as washing hands with soap after defecation and before meals, and the safe disposal of child feces.

Sanitation facilities which fit into the improved category include:

- Flush or pour-flush latrine, with either a latrine pit, septic tank, or piped sewer system
- Ventilated improved pit latrine
- Pit latrine with slab (dry toilet with a raised squatting slab or platform)
- Composting toilet (dry toilet designed and maintained to produce inoffensive compost).

Unimproved sanitation facilities (which don't count towards MDG 7) include:

- Shared or public sanitation facilities
- Flush or pour flush to street, yard, plot, open sewer, ditch, drain, or other unsafe location
- Pit latrine without slab
- Bucket (open vessel periodically removed for emptying and treatment)
- Hanging toilet or hanging latrine (defecation platform over a pond, lake, river or other water source)
- No facility (open defecation).

Note that although well-maintained public or shared facilities represent an improvement over rudimentary forms of sanitation, the likelihood of poor hygiene and unsustainable use of these facilities argues against counting them as improved facilities.

Which countries in East Asia are the worst off in sanitation terms?

Access to improved sanitation facilities varies widely from country to country. It is lowest in Cambodia, which had an estimated 28 per cent total sanitation coverage in 2006, followed by Timor-Leste with an estimated 36 per cent and Lao PDR with an estimated 47 per cent coverage last year.¹ China, whose enormous population has a significant impact on the regional picture, had an estimated 53 per cent total sanitation coverage in 2006.² As in all the world's regions, people living in urban areas are much more likely to have latrines or toilets at home than people living in rural areas. In Indonesia, the sanitation gap is particularly wide, with 71 per cent of people without access to basic sanitation living in the countryside. Urban-rural disparities are also wide in Cambodia, China and Lao PDR.

How can it be that in the 21st century in the fastest-growing region of the world, millions of people still defecate in the open or use the most rudimentary means to relieve themselves?

The science of sanitation is not difficult. There is great expertise on how to build toilets and sewer networks, and the costs of doing so are not prohibitive. However, faced with competing priorities, low private demand for facilities and the invisible costs of poor sanitation and hygiene, governments have rarely given these the priority they merit. This low priority is manifested in central and local government budgets which assign little to sanitation and hygiene improvement and in programmes, policies and regulations linked to the disposal of human waste, which rarely recognize the severity of the sanitation and hygiene challenge.

Individual household demand is as important a factor as political will in encouraging and expanding sanitation coverage, but householders, without the benefit of wider community and government involvement, often are not convinced of the need for – or are not able to afford – better facilities. Sanitation is still a dirty word in the political and social lexicons of many countries in East Asia. And stigma around sanitation is alive and thriving. Politicians and people in general tend to feel uncomfortable and embarrassed talking about toilets, human excreta, feces, and defecation. This hinders serious discussion of problems at the highest levels, and appointment of top government talent to tackle sanitation issues. The economic, health and environmental costs of poor sanitation

¹ Source: EASAN estimates from 'Universal Sanitation in East Asia, Mission Possible?', a joint report by WHO, WSP and UNICEF.

² Ibid.

are often not directly visible and swept under the carpet. Open defecation often takes place under cover of darkness, while unsafe latrines, inadequate septic tanks and underground networks with

Untreated sewage dump human waste through unseen pipes or public ditches. The people who are worst affected - the poor and marginalized, including ethnic minorities and migrants – most often lack a political voice and are themselves neglected and treated as invisible.

Human behaviour also plays a role in perpetuating centuries-old unsanitary practices. Those without sanitation often have entrenched habits and without convincing explanations on benefits, may not feel it essential to change daily practices and invest scarce money in latrines.

Though they might appear obvious, the economic costs of poor sanitation have not been well understood or properly measured, and thus absent as potent arguments for action – until very recently.

A new World Bank study sheds some light on just how much the neglect in sanitation is costing. It estimates that the adverse economic impact of poor sanitation and hygiene in Cambodia, Indonesia, the Philippines and Viet Nam collectively totals US\$9 billion per year, which, if used as a basis for broader calculation, equates to \$40 billion in economic costs for the nine EASan focus countries. The economic toll is calculated based on the aggregated economic losses due to health-related costs, losses in productive time, and costs due to water pollution and to reduction in tourism.

Isn't it the legal responsibility of governments in this region to provide sanitation?

Most governments in developing countries of East Asia commit to, or are obliged to provide, a certain minimum level of basic social services. However, in almost all cases sanitation is not included in the package, even though it is considered a public good.

Article 24 of the Convention on the Rights of the Child (CRC) sets forth an obligation for governments to provide medical assistance and health care, including preventive health care, to children. A stipulation within this article states that appropriate measures must be taken to provide clean drinking water (though not sanitation or hygiene services). In East Asia, most latrines and toilets within homes have been individually financed. In some cases, governments have provided subsidies for the construction of home latrines, mainly in rural communities. But subsidies are a contentious issue. Sanitation does get some funding within the spheres of health and education – for instance latrines and hand-washing facilities are built in schools as part of the 'child friendly' school approach.

While sanitation is usually paired together with safe water as a single social development goal, water has traditionally received greater emphasis and more resource allocation. The World Health Organization and UNICEF estimate that globally, between 1990 and 2000, safe water received \$12.6 billion annually and sanitation \$3.1 billion.³ In Asia, the difference between spending on water and spending on sanitation is 5.5 times, in favour of water.

What are the biggest barriers in this region to providing adequate sanitation?

There are a combination of factors. Weak national strategy combined with low levels of financing and capacity constraints in rural areas have stalled progress. Behaviours practiced for generations, such as defecating in streams, rivers or by railway lines, are habits - even if they have become increasingly dangerous, uncomfortable or inconvenient. And like all habits, they are part of a daily routine and accepted as such. When there is little awareness about the long-lasting health and economic benefits of adequate sanitation, there is little to justify a change in practice, especially if it involves a capital outlay.

Poverty itself remains a major constraint to building a solid foundation for sanitation and hygiene. Even the lowest-cost options that qualify as improved may be beyond the reach of the very poor. Gender inequalities help to explain the low demand for sanitation and hygiene in many communities. Women place a higher value on private sanitation facilities than do men, not least because of the greater disadvantages and dangers they face regarding open-air defecation, be it loss of dignity, health consequences or the potential for violence. They also tend to have greater responsibility for children's health and domestic cleanliness. But the weak voice of women in

³ Joint Monitoring Programme. 'Global Water Supply and Sanitation Assessment 2000 Report', World Health Organization, United Nations Children's Fund, Water Supply and Sanitation Collaborative Council.

determining household expenditure, where their preferences are effectively overruled, can translate into low demand for latrines or toilets.

Even if there is agreement on the need for in-house facilities, lack of space inside or out may make a latrine impossible to accommodate. On the supply side, a mismatch between what people want and what they can afford, and what markets or governments offer, deters take up. For example, pour-flush latrines will not work if there is a scant water supply in the community. Products designed by engineers without reference to the needs of communities and their priorities, have ultimately failed to catch on. One particular problem is building sanitation in “difficult” areas, such as those prone to flooding, with high levels of groundwater, or where people live on boats.

In sanitation, there is an element of “all or nothing” in terms of the benefits. The full health, environmental and other dividends for a community only come into play when everyone has access to adequate sanitation. If only the well-off have toilets, they may enjoy convenience and privacy, but not a measurable difference in health, because the excreta of those who are poorer are still in the environment. That is a major difference with safe water, where all who can obtain this resource get a direct health pay-off.

How possible is it to change entrenched habits, like open defecation?

Numerous successful examples of what is possible exist from right across this region. One approach gaining ground and supporters is ‘Community-led Total Sanitation’, designed to build demand among households. CLTS was pioneered in Bangladesh. In East Asia, Cambodia, China and Indonesia are countries that have taken on CLTS, with promising results.

India, meanwhile, is making waves with defecation free communities, and an award system that confers recognition of communities that achieve this status. The total sanitation campaign approach in India begins with a community-based appraisal of current sanitation practices, which usually include open defecation. Residents undertake a mapping exercise with households to identify defecation sites, the transmission routes that cause disease and the contribution of each household to the problem. The aim is to appeal to three basic drivers for change: disgust, self-interest and a sense of individual responsibility for community welfare.

When a basket of factors are addressed, including education on the benefits of sanitation, involvement of the community in finding appropriate solutions and application of practical, low-cost technology, change can come at a quick pace.

The East Asia and Pacific region is on track to meet the MDG target on sanitation, so won't that take care of the problem?

Adding 280 million people between now and 2015 to the sanitation ladder will certainly be a considerable achievement. However, meeting the MDG sanitation target will still leave 630 million people – one third of the projected affected population of the 9 EASan focus countries - without proper means for excreta disposal.⁴ Those likely to be left without decent and safe facilities are the poorest of the poor in the worst-hit areas, which suggests that the bulk of the disease burden and wider costs of inadequate sanitation will remain even after the target is attained.

And even if the regional picture looks set to improve, at country level there are wide differences. The MDG target on sanitation calls for a reduction by half between 1990 and 2015 in the proportion of people without sustainable access to safe drinking water and basic sanitation. By that measure, two countries (Myanmar and Viet Nam) have already achieved their sanitation target; another four countries (China, Lao PDR, Mongolia, and the Philippines) are set to do so before 2015, or soon afterwards. However, both Cambodia and Indonesia look likely to fall well short of their MDG target unless their sanitation progress accelerates substantially over the next few years.

10. How much investment will it require to meet the 2015 MDG target on sanitation?

Estimates of the costs of reaching the 2015 target vary widely due to differences in approach, a weak data base from which estimates are made, and inclusion of different sanitation technologies, which alter costs. For instance, in Asia, the average cost of a simple pit latrine with slab is \$26,

⁴ Source: EASAN estimates from ‘Universal Sanitation in East Asia, Mission Possible?’, a joint report by WHO, WSP and UNICEF

with a pour-flush latrine costing on average twice that amount.⁵ A septic tank requires an average outlay of \$115.⁶

On one estimate, the total annual costs of meeting the MDG sanitation target for Asia as a whole is put at \$3.7 billion.⁷ The annual investment needed in East Asia to achieve universal access to both safe water supply and basic sanitation by 2015 has been estimated at around US\$8 billion.⁸

These estimates include both public and private equity, both of which are instrumental to meeting the MDG sanitation target. In all developing countries, households will still be expected to provide the lion's share of financing for private sanitation. Yet there is a worry that reliance on individual financing to improve sanitation in homes may condemn the poorest people to remain sanitation 'have nots', unable to afford even the cheapest facilities. This is where the subsidy issue is most persuasive. The case for government subsidies for the poorest is anchored in the recognition that everyone is entitled to basic human rights regardless of the ability to pay, and that sanitation is a public good whose lack, or provision, has consequences for the critical mass.

Public finance is vital not only to fulfill the MDG target but to go beyond it, to realize universal sanitation in every country, which is the end goal. The Water and Sanitation Program of the World Bank, WHO and UNICEF⁹ advocate that public finance should be used to a) raise awareness and generate demand for improved sanitation; b) improve the supply of affordable sanitation goods and services; c) encourage and support the self-provision of sanitation facilities; d) reward collective sanitation successes (for example defecation-free communities); e) develop national sanitation policies, strategies, institutions and monitoring; and f) subsidize large-scale public infrastructure.

⁵ Source: 'Global Water Supply and Sanitation Assessment 2000 Report', WHO/UNICEF).

⁶ Ibid.

⁷ Source: Closing the Sanitation Gap: The Case for Better Public Funding of Sanitation and Hygiene OECD Roundtable on Sustainable Development (2004) Barbara Evans, Laurence Haller, Guy Hutton.

⁸ Source: EASan estimates from 'Universal Sanitation in East Asia, Mission Possible?', a joint report by WHO, WSP and UNICEF.

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