

Urban Sanitation

- Politics in a Dirty World

Photo: Mats Lannerstad

The Joint Monitoring Programme (JMP) of UNICEF and the World Health Organization estimates that access to basic sanitation in urban populations “crept up” from 79 to 80 percent between 1990 and 2004.

One percent may seem minimal, but in conjunction with the increasing size of urban populations the absolute numbers of unserved urban people rose from 475 million to 611 million over the same period. Still, some countries are showing signs of steady progress. In Mexico, for example, they managed to reduce the total amount of people without access to adequate sanitation by over 8 million from 1990-2004, despite a 20 percent increase in the urban population. Pakistan, Egypt, Vietnam, as well as many other nations, also made strides to reduce the amount of people without access to sanitation by nearly 2, 3 and 4 million people respectively. Though there are some promising signs, the picture remains patchy and some argue that the situation is actually much worse than these numbers suggest.

The Sleeping Cities

Providing urban sanitation services, as compared to rural sanitation or other urban services, poses special challenges. One central challenge is that services to the household have to be embedded within a workable, sustainable and effective urban system, which in many areas does not exist. A city's infrastructure, or lack thereof, impacts its ability to install functional sanitation systems, especially in slums. This connection goes

both ways, as wastes generated in the slums – such as excreta, greywater, stormwater runoff, etc. – negatively impact the city as a whole. Regrettably, cities generally have a poor track record of positive engagement with underserved and marginalised communities. Self-help in communities that lack adequate sanitation only works over long periods of time if integrated with the holistic planning and functions of the city.

Getting Access: What Does it Take?

In technical terms, sanitation consists of some combination of: a toilet; a collection mechanism; a transportation mechanism; a treatment process and a disposal/re-use mechanism/process.

In conventional utility models these elements are combined through a water-borne sewer network which connects a water-sealed toilet in the house to a city-wide network of collection, treatment (sometimes) and disposal of wastes. Access to networked sewerage is widely varied between regions, ranging from 18 percent in Africa and 45 percent in Asia, to 96 percent in North America.

However, in the absence of such a unified system – the reality for most of the world's urban slum population – sanitation usually disaggregates into component parts – toilets, pit waste or sludge management and disposal. Networked sewerage is not the only solution, and technical options for disaggregated systems to improve household, community and collection services are not, as some suggest, lacking. For example, dry toilets, waterless urinals, water closets and pour flush slabs are among many of the different options that can

be used in households and can be coupled with community-managed sanitation blocks and public toilets. Numerous strategies can be applied for the collection, transportation, treatment and disposal of waste as well. A small sampling of methods that can be used include: fossa alterna and secondary sewers, cartage systems with or without septage stations, and the co-composting, dehydration and anaerobic digestion of waste. Nutrient-rich wastes and sludge can even be re-used in gardens and urban agriculture or sold to agricultural markets.

Joined Up Thinking

To improve access to sanitation in urban areas, the thinking on urban and sanitation issues must be better joined together. As part of an urban system, sanitation is comprised of elements that deal with the household environment (the toilet) and issues pertaining to the wider city environment. Effective urban sanitation, therefore, requires a system of service delivery which responds both to household and wider community and city interests.

In the absence of well-resourced and fully skilled utilities responding to public policy signals that can balance out these interests, it seems likely that such a system will continue to rely on a chain of service providers, who will each respond to incentives at different levels in the system. The role of the policy maker is therefore to create the right incentives at each level in the system to meet the requirements of the system as a whole.

For example, local services can be provided through collective action by the community.

Where household facilities are preferred, small private entrepreneurs can in some cases effectively aid in downstream collection and disposal. Still, the proper incentives must be given to ensure that wider environmental issues are addressed. Otherwise, such service providers will not be able afford to make the extra efforts necessary to dispose of wastes safely or appropriately. Though badly needed, it is rare to find a city that is willing to create positive incentives for the safe collection and disposal or reuse of pit wastes.

Coordinated Action

The benefits of sanitation are unlikely to be realised by households who act in isolation. Coordinated action from multiple households is needed. Increasingly, research indicates that a significant proportion of the population, particularly in congested urban settings, need to change the behaviours of individuals to achieve health benefits from improved facilities. The issue becomes even more critical when good operation of the sanitation system is also dependent on reasonable standards of solid waste management and maintenance of stormwater drainage

channels. Thus, even if there is space for on-site sanitation, households may be ill-advised to invest on their own. This need for concerted local action becomes even more pressing where congestion or cultural norms demand the use of networked sewerage. Thus, urban sanitation may require specific support targeted towards communities both to promote behaviour change – investing in and using a sanitary facility – and to support collective action.

Demand for sanitation has a different dynamic than demand for water. In their decision making process on sanitation investments, urban families with scarce household resources require sustained support over time in order to come to value the private benefits of investments in sanitation enough to justify the expense. Of course, investments in sanitation, while important in their own right, are not enough on their own. Without linked investments to promote changes in hygiene behaviours, improvements in sanitation are unlikely to realise their potential health benefits. In addition to the straightforward delivery of services, cities need to invest in several “support” activities that go beyond



| Table : Proportion of households in major cities connected to piped water and sewers | | |
|--|--|------------------------|
| | House or yard connection for water (%) | Connected to sewer (%) |
| Africa | 43 | 18 |
| Asia | 77 | 45 |
| Latin America and the Caribbean | 77 | 35 |
| Oceania | 73 | 15 |
| Europe | 96 | 82 |
| North America | 100 | 96 |



Without linked investments to promote changes in hygiene behaviours, improvements in sanitation are unlikely to realise their potential health benefits. Photo: Barbara Evans

physical infrastructure. This includes providing support to build community capital, joint action and promoting/marketing sanitation and improved hygiene behaviour.

The Problem for Poor People

For the poor people who live in the most disadvantaged community spaces, conventional policy simply does not respond to their reality. Thus, the approaches to service delivery in which policy engages, in general do not work in their local contexts. In slightly wealthier towns and cities with more committed administrations, poor populations may find that their needs would be met but that resources to implement plans are lacking. In general, this is because the needs of the poor are so great. Despite the wide range of technical solutions available and the often-prominent national commitments made to significantly improving access to sanitation, this causes progress to remain slow.

Here, the political economy of decision making and resource allocation is critical. Success comes to those cities that are brave enough to work with community action and ensure that communities or households are sufficiently supported to engage in an informed programme for the whole city.

Ms. Barbara Evans, MSc Development Studies,
 Water, Sanitation, Hygiene and Development
 e-mail: info@barbaraevans.net