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MEETING DEVELOPMENT GOALS IN SMALL URBAN CENTRES



## Sustainable Innovations aimed at attaining the Millennium Development Goals on Water and Sanitation in Small Urban Centres

UN-HABITAT's new report *Achieving Global Goals in Small Urban Centres: Water and Sanitation in the World's Cities (2006)* highlights successful experiences of addressing water and sanitation needs in small urban centres. Some of the examples specifically target water and sanitation programmes while other schemes –for instance slum and squatters upgrading, new house programmes and housing finance programmes- look at more comprehensive approaches.

From the onset, the report argues that while it is obvious that the appalling conditions in which most of the urban poor in small towns live have to be improved, the means and strategies to achieve this is not so obvious especially as providing clean piped water and adequate sanitation is often too costly for small local communities.

### Reducing the cost of water delivery

The report points out that currently, apart from unimproved water sources e.g. unprotected shallow wells, rivers and lakes, in small towns there are four major forms of delivery. These include shared public stand pipes; Cooperative stand pipes that typically serve between 1 and 20 households; Yard taps for individual households; and, individual household supplies (e.g. in-house taps).

However, each of these options has an increasingly higher management and cost implication for the user, often making delivery of water to individual households prohibitive. Instead what is needed is to encourage pragmatic local responses that improve economies of scale. Large-scale management and provision of services through public/private partnerships and community participation can help reduce the cost of supply and increase the possibility of cost recovery.

The report recommends two sustainable solutions:

**Condominial water supply systems** are currently in use in such cities as Durban (South Africa) La Paz (Bolivia) and Buenos Aires (Argentina). It is also applied in smaller urban centres of Brazil (where it was first developed in 1990s) and Peru. According to the report, the best example is found in Parauapebas in Brazil where it has enabled 287 kilometres of streets to be served by only 43 kilometres of pipes thus saving the cost of buying the pipes and reducing the need for excavation. The system involves having residents participate by footing the costs of purchasing all the materials needed for connecting water into individual housing blocks and households. Following the application of the system, the monthly water bills are kept low with standing charges being the equivalent of US\$2.78 while each cubic meter of water costs US\$0.25 for the first 10 cubic metres. The Report says that the system is relevant for most small urban centres because of this reduction in costs. However, some of its features – for example high per-household water consumption and provision to each household- can make these options too expensive to be replicated in the small urban centres of sub-Saharan Africa and Asia.

**Community Taps in San Roque Parish of Mandaue City in the Phillipines:** Mandaue is a city where thousands of the urban poor shelter behind factories, shopping malls and resorts in crowded informal settlements that lack basic services. Access to water is a big problem with up to 500 households sharing a single water tap. In addition, water is sold quite expensively, sometimes rising to the equivalent of US\$0.02 per litre. But the San Roque Parish Multi-purpose Cooperative,



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an umbrella body for community-managed project, has been installing and managing community water taps. This has enabled the poor to get permission to tap water from the mains allowing them to get supplies at low costs. However, the poor are expected to lay the pipes, install the pipes and pay for the water themselves. This has been made possible by a credit scheme that allows groups to borrow money from their savings schemes to buy the pipes. The set up has also enabled the poor to negotiate with factory owners and private developers for permission to tap water from the mains. Some of the groups here use a pay-and use system to manage the communal pipes. This has enabled them to generate profits, part of which they use to start income-generating activities such as small community stores and to pave local roads.

## Reducing the cost of improving sanitation

As with water supply the ideal choice is for each household to have its own toilet facility, but again this is often prohibitive. The evidence shows that it is possible to keep the costs down through community planning and involvement.

**Orangi Pilot Project (OPP) in Pakistan:** This model has been hailed as a success story in improving sanitation among poor neighbourhoods. Its success hinges on the fact that external agencies provided 'external' pipes with the residents footing the costs of installing 'internal' pipes within their neighbourhoods. It was started in 1980 to support the provision of infrastructure and services in Orangi, a cluster of informal settlements which today house about 1.2 million people. It was originally aimed at changing the way local governments plan and manage investments in infrastructure so that they are affordable to low-income households. Sharing and cooperation are the whole essence of the OPP as the government provided 'external' sewers, residents of each street or lane take the responsibility of planning, installing, financing and managing the pipes that connect each house to a street sewer. The arrangement has now been extended into many small urban centres in Pakistan. The report says that it has been replicated in 257 locations outside Orangi. Local governments have invested US\$242,763 for developing external sanitation while communities have invested an equivalent of US\$1,368, 8666 in building internal sanitation. So far, a total of 43,618 households have benefited.

**Community-designed and Managed Toilet Blocks in Tirupur, India:** In India, designing and constructing community toilet blocks was initiated by the National Slum Dwellers Federation (NSDF) and the Mahila Milan, a slums' women and pavement dwellers savings cooperative. It revolves around communities designing, building and managing toilets in urban centres of India. (Since NSDF-Mahila Milan ganged up with the NGO SPARC (called the 'Alliance'), about 500 such toilet blocks have been designed and constructed by communities serving hundreds of thousands of households especially in Pune and Mumbai cities.) As a result, many Community-based organizations, NGOs and government officials have become interested as well in Tirupur, a centre with a population of about 350,000 where infrastructural development has not kept up with the rapid pace of population growth. Officials in Tirupur invited the Alliance which conducted a survey that identified and documented the location of the settlements, land ownership, existing toilets, water taps, wells, electricity and drainage connections. Later the Alliance submitted a proposal for the construction of 7 toilet blocks at a cost of Rs60, 000 per block. But according to the Report, it was to take inordinately long periods before permission to construct the toilet blocks could be granted. This, the report argues, indicates that building public or community toilets in slums is not merely a technical exercise "but rather a process that needs strong communities who are organised and supportive and trained in maintenance and supervision."

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Mr. Sharad Shankardass, Spokesperson, Ms. Zahra Hassan, Press & Media Liaison, Press & Media Relations Unit, Tel: (254 20) 7623153/7623151/7623136, Fax: (254 20) 7624060, E-mail: [habitat.press@unhabitat.org](mailto:habitat.press@unhabitat.org), Website: [www.unhabitat.org](http://www.unhabitat.org) WATSAN/2006/Pr2*

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