

In cities and towns that lack sufficient water and sanitation, serious health problems can spread very quickly. But because of the crowded and built-up nature of cities, it is difficult to improve sanitation services without a lot of help from local or national governments, NGO's, and other international development partners. This Action Sheet can only offer some guidelines to help think about possible solutions.

## What are the main problems?

The main barriers to good sanitation services in cities are:

- **Physical.** Often, sanitation is considered only after neighborhoods and settlements have roads, electricity, and water. Once a city is built, it is much harder to plan for and build sanitation services.
- **Economic.** Large sanitation systems, especially water-based systems, are costly to build and maintain. If water systems are privately owned rather than provided by governments, it is even harder for people to afford sanitation.
- **Political.** Local governments may not want to deliver services to informal settlements and poorer neighborhoods. And there may be laws that prevent people from planning and building their own sanitation systems.
- **Cultural.** People and officials in cities often want flush toilets and costly sewer systems, making it difficult to agree on more sustainable and affordable alternatives.

## How can these problems be addressed?

### Planning for urban sanitation is made easier when:

- people have choices that fit their different needs.
- community groups take the lead in developing solutions that are appropriate and affordable.
- people's human right to have water is recognized.
- the needs of the most vulnerable groups are taken into account.
- partnerships are built among communities, non-governmental organizations, local governments, and businesses. For these partnerships to work well, they must be controlled by those most in need of sanitation improvements – the communities themselves.

## Community sanitation in Yoff Senegal

Not long ago, Yoff was a typical West African fishing village outside of Dakar, the capital city of Senegal. Families lived in compounds connected by walking paths and open spaces. But as Dakar grew and swallowed Yoff, it became part of a large urban area with an international airport and a lot of car traffic.

As the town grew, many houses installed flush toilets connected to tanks to collect the sewage. When the tanks filled up, people pumped them out into open pits where the sewage sat and bred disease. Other people who were too poor to afford toilets used open sandy areas to fulfill their needs. But with many people living close together, this quickly became a health problem.

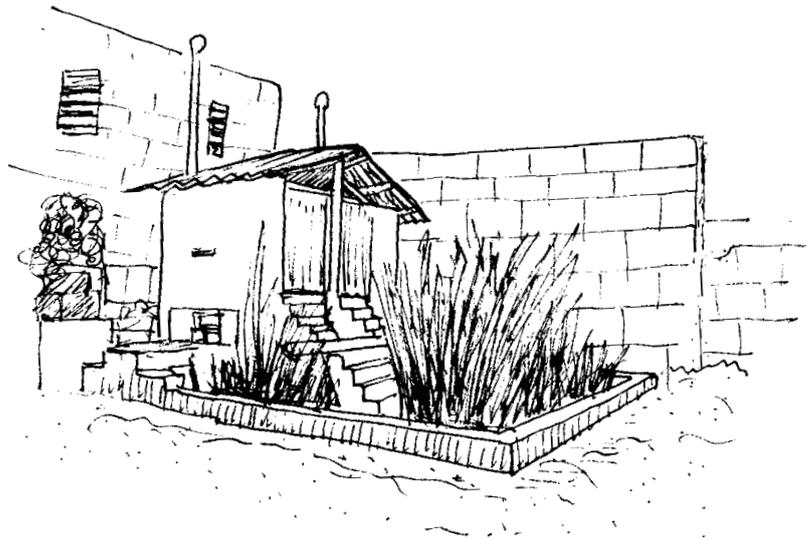
A town development committee came together to solve these problems. They began by looking at the resources they had: strong community networks, skilled builders, and people committed to keeping village life. They also had some new ideas about ecological sanitation.

In the village, houses were grouped around open common areas where people could gather and talk. After talking to many villagers, the committee made a plan to use this open area for a sanitation system that would make the area more attractive, rather than uglier. Instead of promoting household toilets and underground sewage tanks, they would promote community ecological sanitation.

The committee worked with residents to build urine-diverting dry toilets. Each set of toilets would be shared by the whole compound. The urine would run through pipes into beds of reeds. The faeces, after being dried out, would be used to fertilize trees.

All of this would help to keep the village green. Local masons and builders were hired to construct the toilets and to maintain the common areas.

This urban sanitation project not only prevented health problems – it also helped to preserve the way the people of Yoff wanted to live.



## Reasons not to use water-based sanitation in cities

Urban sanitation does not have to use large water-based systems. In fact, in most of the world, large water-based systems cause more problems than they solve. Water-based sanitation systems produce large amounts of dirty water that must be treated before it can be reused. If it is not purified – and it usually is not – this leads to serious environmental and health problems.

If urban sanitation services are combined with urban farming, parks, garbage collection, and energy production, cities can become healthier and more beautiful places to live. When community groups work with local governments to come up with creative solutions, the result will be greener, healthier cities.

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## **For more information**

WASTE – [www.waste.nl](http://www.waste.nl)

UN HABITAT – [www.unhabitat.org](http://www.unhabitat.org)

On-plot sanitation for Low-Income Urban Communities – Guidelines for Selection by Andrew Cotton and Darren Saywell, 149pp, WEDC, 1998.

Water for Low-Income Urban Communities by Caroline Forrest and Margaret Ince, 24pp, WEDC, 2001.

Action sheets 26, Building toilets and 78, Permaculture

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