

Urban water supply and sanitation

Safe drinking water, sanitation and good hygienic conditions are essential for human survival, health and dignity. Adequate and reliable water supplies and sanitation services are critical for coping with everyday urban life. Good management of water resources is vital to environmental safety and sustainability. Considerable improvements are needed by 2015 if one particular Millennium Development Goal is to be reached: "Halving the proportion of people lacking access to safe water and basic sanitation".

Key issues

Health and Environment

Lack of access to adequate safe drinking water and sanitation causes severe health problems. These can be grouped into three categories:

- Water-borne diseases, such as diarrhoea, dysentery, cholera and typhoid, caused by contaminated water
- Water-washed diseases such as skin and eye infections caused by insufficient water for personal hygiene
- Water-based or other water-related diseases such as malaria, bilharzia, elephantiasis and river blindness, related to exposure to unsafe water situations.

Water use and sanitation practices have far-reaching effects on the environment and on people's livelihoods. The negative effects include:

- Water pollution due to poor wastewater management.
- Water wastage due to deteriorating infrastructure and inefficient water use.
- Ecosystem degradation and pollution through uncontrolled discharge



PHOTO: SCANPIX

Slum dwellers live in hutments near a water pipeline in Mumbai, India's financial capital.

of industrial and human waste products.

Social aspects

Most of the diseases mentioned cause, and are caused by, poverty and social exclusion. The most vulnerable groups are young children, the malnourished and people with HIV/AIDS. In areas where the HIV/AIDS prevalence is high, all support activities should take into account the impact and consequences of HIV/AIDS. Experience and research show that improving a water supply's accessibility and quality alone has limited effects. To benefit health, water supply interventions must be combined with

improved sanitation and hygiene practices. Women and children are most vulnerable to the consequences of poor access to water and sanitation services in urban households.

Institutional aspects

The diversity of situations related to water supply and sanitation pose complex challenges for local inhabitants and for authorities on local, national and regional levels. National governments bear responsibility for appropriate policies and regulatory frameworks. Urban water and sanitation provision is often a municipal service. General problems in this sector are lack of capital, overstaffing, poor

management and political interference. Urban water supply systems often have very high rates of unaccounted-for water – both physical losses through leakage and economical losses through non-payment.

The private sector, both formal and informal, can play an important role in providing services.

Strategic areas for support

The following areas of support should be considered:

- Water supply, sanitation and hygiene promotion in urban and peri-urban slums
- Wastewater management in urban areas
- Industrial water and wastewater management.

Key approaches

- Support an integrated approach to water supply and sanitation within an overall framework of Integrated Water Resources Management
- Support capacity building of sector institutions and individuals at all levels with due regard for equitable access to resources and services, health, social development, and technical, financial, institutional and environmental sustainability
- Include marginalised citizens in all stages of service design and delivery to achieve appropriate service provision responsive to the needs of the urban poor
- Develop financing and cost recovery mechanisms ensuring that investments lead to sustainable service delivery, operation and maintenance that are acceptable and affordable to the poor

- Introduce and demonstrate improvement packages stepwise
- Support and strengthen institutional frameworks for public-private partnerships.

To be aware of

Service deficiencies in urban areas are different from those in rural areas. Although service facilities may be in place, the cost, both in monetary terms and in terms of queuing time may be very high for poor people. Water demand management and reduction of unaccounted-for water can be a viable alternative to expanding water supply. The impact on various user groups of tariff systems must be carefully analysed. Subsidies can miss target groups if not properly structured. For public-private partnerships, efficient regulatory systems must be in place, and the public sector must be strengthened in its capacity as a client. Corruption is common in the water and sanitation sector.

Examples of Sida support

Africa. The Water Utility Partnership (WUP) is an African regional capacity-building programme focussing on urban water utilities. It aims to improve quality and increase coverage of water supply and sanitation services through investments and reform of utilities.

Kampala, Uganda. An interdisciplinary pilot project to develop and promote ecological sanitation solutions in low-income areas. Systems for reuse of nutrients in urban agriculture are developed.

Bangladesh. Studies of water and wastewater systems in Dhaka to support strategic decisions for the protection and use of water resources.

St Petersburg, Russia. Improved services through reforms, institutional strengthening of the municipal water utility combined with investments in the water and wastewater infrastructure.

South Africa. Alternative sanitation technologies (eco-sanitation) in the Eco-Village and Hull Street housing projects in Sol Plaatje municipality.

India. Support to urban reforms through the World Bank Water and Sanitation Project.

Sida references

Available at www.sida.se

Fighting Poverty in an Urban World, Sida Policy (2006)

Pure Water – Sida Strategy for Water Supply and Sanitation (2004, also available in a short version)

Checklist to Sida Strategy for Water Supply and Sanitation

Urban Issue Paper on Industrial Environment

Urban Issue Paper on Chemicals Management

Urban Issue Paper on Solid Waste Management

Urban Issue Paper on Public Environmental Management

Published separately

Tannerfeldt, G and Ljung, P (2006) *More Urban – Less Poor, An introduction to urban development and management*, London, Earthscan

REMINDERS

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| ☐ Are management structures appropriate in terms of efficiency, accountability, transparency and anti-corruption? | ☐ Have sufficient measures been taken to enhance capacity building of relevant actors? | ☐ Are proposed technologies adapted to the local conditions where the investments are to be made? |
| ☐ Are regulation and policy functions of the water and sanitation sector managed by democratically controlled institutions? | ☐ Have the roles of different private and public actors been properly defined? | ☐ Are the future users, with special attention to the most marginalised groups, included as active participants in the decision-making process? |
| ☐ Are the regulatory and legal frameworks sufficient to safeguard long-term sustainability and, even more importantly, is there | ☐ To what extent is recycling of nutrients included in the sanitation concepts? | |