

A Brief for *Policy Makers*

East Asia and the Pacific Region Urban Sanitation Review: Actions Needed

The World Bank, with support from the Australian Government, conducted in-depth sector studies in three countries of East Asia Pacific – Indonesia, the Philippines and Vietnam – and synthesized the analyses and findings in a single report entitled *East Asia and the Pacific Region Urban Sanitation Review: Actions Needed*. This report recommends ways these countries and others in the Region can expand and improve urban sanitation services in an inclusive and sustainable way.

About 2.5 billion people worldwide lack adequate sanitation – that’s one third of the global population – and 660 million of them live in East Asia and Pacific (JMP 2012). Inadequate sanitation takes a tremendous toll on the quality of peoples’ lives, the environment, and the economy.

Without effective urban sanitation, there is a high risk of epidemic diseases such as cholera, as well as the chronic effects of poor health from diarrhea and even death. Inadequate sanitation pollutes water supplies, rendering them unsuitable for drinking, irrigation, and other purposes. Poor sanitation facilities – together with contaminated water supplies – account for about 88 percent of diarrheal deaths worldwide (JMP).

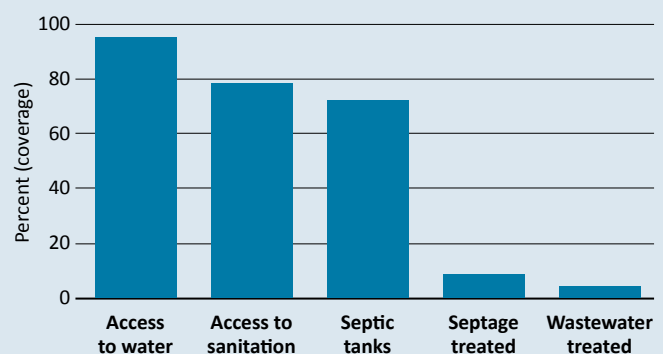
The economic impact of inadequate sanitation is substantial. East Asia is rapidly urbanizing and its cities are engines of economic growth. But while there has been economic progress in these urban areas, sanitation conditions have not improved. Each year, poor quality sanitation costs Vietnam 1.3 percent of GDP, the Philippines 1.5 percent of GDP, and Indonesia 2.3 percent of GDP.



While access to sanitation is high, collection and treatment rates are low. Access to improved sanitation in urban areas is high (around 77 percent on average for the three focus countries).¹ However, adequate collection and treatment rates are significantly lower, as less than 6 percent of the septage or wastewater² reaches a properly functioning treatment plant (Figure 1).

Figure 1: Urban sanitation situation

(urban population-weighted average across the three countries)



1 JMP defines sanitation access as “access to a facility that hygienically separates human excreta from human contact.”

2 Septage (solid waste from septic tanks that includes fecal coliform) and wastewater that is contaminated with human feces.



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Sectoral Issues



The report identifies the main issues affecting service provision in the sanitation sector as follows:

People-centered Policies

- ❑ Public awareness is low due to uninformed demand for sanitation: the negative impacts of unhygienic sanitation practices on human health are not widely known. Ultimately, it is the demand from people that will lead to better sanitation practices. Citizen initiatives to clean-up the environment have been successful and are likely to continue, and constant public vigilance ensures better sector performance.
- ❑ Better information exchange is needed, as this facilitates forming and understanding opinions.

Cost-effective technical solutions

- ❑ Inadequate collection and treatment makes wastewater a vector for disease.
- ❑ Poor design and maintenance of septic tanks make septage a vector for disease.
- ❑ Sound project preparation is often missing, resulting in a risk of over-design and under-utilization of sanitation improvement facilities.

Sustainable institutions for quality service

- ❑ Urban sanitation requires horizontal coordination, across a range of sectors, and vertical coordination

from the national to the provincial and local levels; however, there are important gaps in the enabling environment hampering effective implementation of programs.

- ❑ The limited number of professionals in the sector inhibits capacity. In the focus countries, the capacity is not adequate to carry out sanitation services in a sustainable manner.
- ❑ There is also insufficient managerial and financial autonomy in service provision, and this makes it less feasible for a utility to make commercially and technically sound decisions.

Viable financial schemes

- ❑ Substantial financing is needed to develop infrastructure and provide sustainable services for urban sanitation.
- ❑ By some estimates, investment levels of at least US\$250 per person are needed.
- ❑ Policies are not backed by viable financing. While the focus countries have sector policies, they still need to develop, fund and implement sanitation programs with a clear expenditure framework.
- ❑ Financing operating costs is an immediate challenge, as tariffs are too low to meet operating costs in any of the focus countries and government and municipal authorities are often reluctant to raise tariffs because of concern about reaction from citizens.

Recommendations

To make and keep cities clean and healthy, the following recommendations should be implemented:

People-centered Policies

- ❑ **Integrate sanitation with city development plans.** Urban areas need to develop City Sanitation Plans that identify issues and cost-effective solutions, as clean and healthy cities will help to eliminate water-borne diseases and improve the quality of life of many people that live in the vicinity of untreated wastewater and raw sewerage.
- ❑ **Design and implement behavior change communication strategies.** An informed public is the most effective driver of change. Information and education campaigns, focusing on the collective gains of quality sanitation and the associated benefits for public health, environmental protection, and economic development can build civic awareness leading to change in sanitation practices.

Cost-effective Technical Solutions

- ❑ **Prioritize the collection and treatment of septage.** Septic tanks are prevalent in East Asia, but their operation is not optimal. Poorly maintained

sanitation facilities create health risks, especially in areas where shallow groundwater is used for drinking water. Improvements in septic tank management are not capital intensive, but do require capable institutions. Regulations are also needed to establish responsibilities and enforce the regular de-sludging of septic tanks.

- ❑ **Collect and treat wastewater at least cost.** It is important to collect wastewater before it reaches water bodies, as it is a major vector for diseases. Connection to sewers is also important to remove polluted water from neighborhoods. Specific analysis should be carried out at the city level to determine whether separate or combined sewers should be developed to ensure cost-effectiveness.
- ❑ **Adopt climate-smart sanitation strategies.** Such strategies should ensure that: flooding and climate change uncertainties are included in feasibility studies; and solid waste management is addressed to help reduce urban flooding from garbage-clogged drains and sewers. Furthermore, consideration should be given to utilizing sanitation by-products that have value – such as biosolids that can be used for fuel or fertilizer and water that can be re-used for agricultural purposes.

Figure 2: Recommendations





Sustainable Institutions for Quality Services

- ❑ **Develop city-wide sanitation strategies.** A comprehensive, action-oriented national program for urban sanitation, with targets and funding, should be put in place in each country to improve services. Furthermore, City Sanitation Plans should incorporate the concerns of the poor, including the elimination of open defecation, improving access to finance for sanitation improvements, and the improvement of sanitation services in informal settlements.
- ❑ **Integrate urban water management.** Since water supply and sanitation are linked, water and sanitation issues should be addressed jointly through a robust regulatory environment at the local level that ensures quality of services at economic costs. Urban sanitation services should be commercialized so that costs associated with delivering the services can be recovered. Furthermore, monitoring and evaluation systems should be developed and incorporated into City Sanitation Plans as a tool for determining progress.

Viable Financial Schemes

- ❑ **Secure capital needs through a sanitation expenditure framework.** This framework should be linked to the fiscal plans of the central and local governments. In addition, efforts should be taken to seek private financing of infrastructure; regulatory changes should be pursued to attract commercial capital and private operators; and the funding strategies need to be developed working with a wide range of central government ministries. Financing should also be in place to support the poor.
- ❑ **Maximize the use of consumer fees to meet operating costs.** Wastewater costs should be fully paid by the polluter or user and charges should meet operating costs. This could be accomplished by linking the water and wastewater fees, which would create incentives to minimize water consumption and thereby reduce wastewater generation. Dependence on taxes to meet operating costs should be phased out.

For a copy of the EAP Urban Sanitation Review, supporting country studies that include more detailed country-specific recommendations, and an infographic, please visit: www.worldbank.org/eap/urbansanitationreview.