

SUMMARY SECTOR ASSESSMENT: SANITATION

Sector Road Map

1. Sector Performance, Problems, and Opportunities

1. Improved access to safe water and basic sanitation are key targets of the Millennium Development Goals (MDGs).¹ In its own assessment of progress toward the MDGs, Indonesia indicated that, in the early 1990s, only 30.9% had access to improved sanitation, increasing to 59.3% by the late 1990s. By 2002, access to improved sanitation in Indonesia was reported at 63.5%, and by 2007, the figure was 67.1%. Various other assessments have used different definitions, using the words “safe,” “improved,” and “basic” to define progress, and some use as the base the “proportion without access” while others use the “proportion with access,” thus creating different opinions about progress. If the figures in Table 1 are used, Indonesia has already more than doubled the proportion of the population with access to improved sanitation, well ahead of 2015.

Table 1: Improved Sanitation and Water Indicators in Indonesia
(%)

Indicator	Early 1990s	Mid-1990s	Early 2000s
Proportion of population with access to improved sanitation	30.9 (1992)	59.3 (1997)	63.5 (2002)
Proportion of population with access to an improved water supply	38.2 (1994)	43.1 (1998)	50 (2002)

Notes: Year in parentheses. Definitions of “improved” differ, so that the proportions reported also differ.

Source: Government of Indonesia. 2004. *Progress Report on the Millennium Development Goals*. Jakarta.

2. Key problems in the sanitation sector include the following: (i) In many cities, revenues from service charges are too low to cover operation and maintenance costs, so sanitation services depend on subsidies from city governments that are generally inadequate to provide good services. (ii) Many city agencies are involved in sanitation, causing institutional overlap and lack of direction. (iii) Strategic planning for sanitation is lacking in most cities, with no master plans being implemented. (iv) Present sanitation frameworks are not attractive to private investors on a wider scale. (v) Wastewater-treatment plants are often in poor condition and operate well below capacity. (vi) There is a shortage of desludging tankers and sludge processing plants for the proper maintenance of septic tanks. (vii) Qualified manpower is in short supply. (viii) Water resources are polluted by poorly built septic tanks and leaking sewers. (ix) Community awareness of sanitation is low, and community participation needs improvement.

3. The technology of choice by far for wastewater in urban areas is septic tanks, as 59% of the population use them, though their quality is unknown. Other means of human waste disposal in urban areas are pits (21% in 2002); surface waters (13%); and fields and empty lots, etc. (7%). Eleven cities have off-site sewerage systems, serving 58% of residents in Bandung at one extreme, and 3% in Jakarta and Medan at the other. Less than 1% of Indonesia’s urban population uses sewerage systems. Several of the treatment plants operate well below capacity.²

¹ Goal 7: Ensure environmental sustainability. Target 7.C: Halve, by 2015, the proportion of people without sustainable access to safe drinking water and basic sanitation.

² USAID. 2006. *Comparative Study: Centralized Wastewater Treatment Plants in Indonesia*. Jakarta

4. About 2% of the urban population of Indonesia is connected to an off-site sewerage system. However, a substantially larger share, estimated at 67% in 2007, has access to some form of improved sanitation. This discrepancy partly reflects that the government focused its attention on promoting small communal wastewater-treatment systems instead of building sewers connected to centralized wastewater-treatment plants. The most common form of communal system is a public facility for bathing, washing, and toilets serving 20–100 families. Regional governments are building the facilities, sometimes with financial support from the central government, but the recipient communities are expected to operate and maintain them.

5. Many urban and peri-urban areas in Indonesia have priority disease profiles heavily linked to poor water supply and sanitation: diarrhea, skin disease, intestinal worms, and diseases such as malaria and dengue. Poor people in urban slum areas, particularly children, women, and the elderly, are more affected than others. While infant mortality rates have decreased substantially from 145 per 1,000 live births in 1967 to 35 in 2006, they are still higher than in other Southeast Asian countries such as Thailand (20) and the Philippines (23). Diarrhea remains the second-largest cause of death among young children, particularly in their second year. This situation results from inadequate access to clean water and sanitation, combined with poor hygiene, such as regarding the disposal of human waste. Recognition is increasing of the need to emphasize hygiene and behavior changes in water and sanitation programs to stimulate local awareness and increase the health benefits from investments.

6. Indonesia compares poorly with its neighbors on most health indicators. It ranks below the East Asian average in terms of mortality and life expectancy, and, relative to its immediate neighbors, notably Malaysia, health indicators are significantly lower. These poor health outcomes are the worst among the poor. Even in urban areas, where access to health care tends to be better than in rural areas, the poor experience disparities in health status, often related to the environment. Their often densely packed urban neighborhoods have drainage, sanitation, waste management infrastructure of low standard and in poor condition, and they are often subject to seasonal flooding. Urban Indonesians are extremely susceptible to waterborne such diseases as diarrhea and leptospirosis and mosquito-borne diseases such as dengue and chikungunya, which spread quickly when mosquitoes breed in unclean environments.

7. Hygienic sanitation systems and behavior are important to achieving the MDGs, notably for reducing child mortality.³ Improved access to better sanitation facilities will reduce diseases related to water and water scarcity. This benefit will particularly accrue to infants and children, who are particularly vulnerable and suffer more frequently and severely from these diseases.

8. Despite comparing poorly with its neighbors on key health issues, Indonesia appears to be on track to achieve MDG 4 on reducing child mortality. Indeed, Indonesia reached its targets to reduce both infant and under-5 mortality rates by 2003. As often noted, the national achievement of an MDG often hides disparities between poor and better-off areas. By improving sanitation in poor urban areas, the project will contribute to reducing these disparities.

³ Goal 4: Reduce child mortality. Target 4.A: Reduce by two-thirds, between 1990 and 2015, the under-5 mortality rate.

2. Government's Sector Strategy

9. Providing access to clean water and sanitation is an integral part of efforts to improve health conditions in Indonesia.⁴ The government is committed to meeting the MDGs, including the target of reducing by half the proportion of people without access to safe drinking water and basic sanitation by 2015 (footnote 1). The government's *Roadmap to Acceleration of Urban Sanitation Development 2010–2014* foresees by 2015 open defecation eliminated, access to off-site sewerage networks increased in 16 cities, and communal sanitation facilities available in every city, with 226 cities considered high-priority.⁵

10. Nationally, and in line with the policies of decentralization and regional autonomy, the government has developed its National Policy for the Development of Community-Based Water Supply and Environmental Sanitation.⁶ Introducing a paradigm change toward a demand-responsive approach to water and sanitation facilities and services, the policy advocates strengthening regional government and community capacity to provide water supply and sanitation services and programs to change communities' sanitation and hygiene behavior.

11. With decentralization, local governments became responsible for delivering basic services to their communities. However, many of them have very limited capacity and require support to facilitate and finance investments. Similarly, communities need support in planning, implementing, operating, and maintaining improved water supply and sanitation facilities. Numerous studies and projects in Indonesia and elsewhere have demonstrated that the involvement of the community in decision-making, implementation, and maintenance correlates positively with the sustainability of improved services.

3. ADB Sector Experience and Assistance Program

12. Lessons from urban communal sanitation projects in Indonesia show that (i) communal systems can very effectively reduce sanitary pollution in densely populated areas if communities have been involved from the beginning through community mobilization, training, and related activities; (ii) once community members understand the importance and benefits for themselves, they often make land available either above or below ground or in combination with other facilities; (iii) involving women in planning is required to ensure the suitability and sustainability of facilities; (iv) water and electricity must be supplied; and (v) users' charges must be collected to cover operation and maintenance costs.

13. The Asian Development Bank (ADB) will support the government's efforts to broaden access to safe water supply and improved sanitation, raise public awareness, and develop capacity. The main goals and objectives of ADB assistance in the sector include (i) supporting the government in its efforts to achieve related MDGs; (ii) providing financing for urban and rural water supply and sanitation infrastructure; (iii) helping to enhance governance; (iv) supporting the restructuring of urban water utilities; and (v) providing assistance for urban and rural sanitation improvement. Key outcomes of ADB assistance will include increased and

⁴ The *Healthy Indonesia 2010* policy document prepared by the Ministry of Health sets out the government's national health development program to achieve the health-related MDGs.

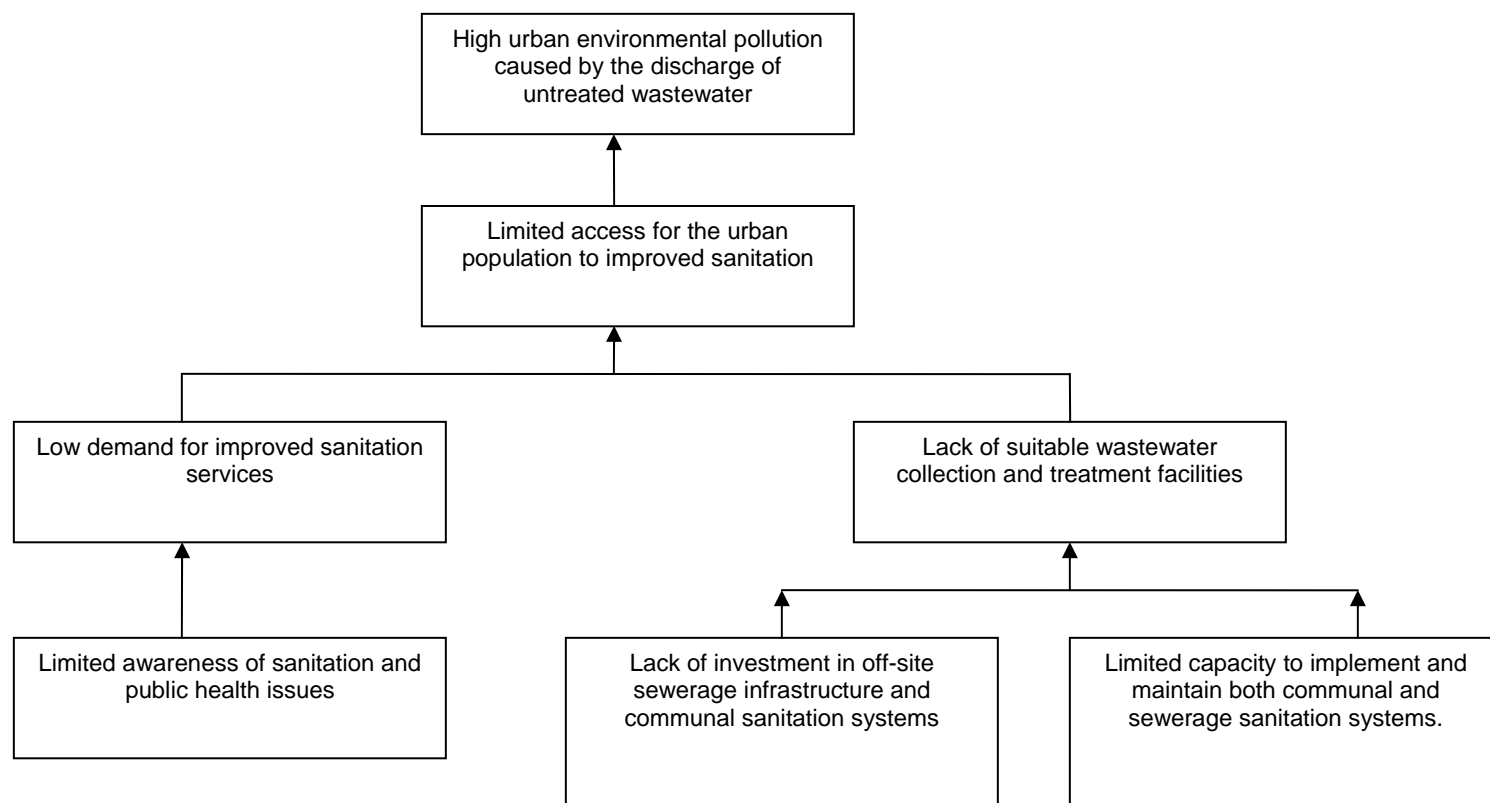
⁵ Sanitation Development Technical Team. 2009. *Roadmap to Acceleration of Urban Sanitation Development 2010–2014*. Jakarta.

⁶ Ministry of Public Works, Ministry of Health, Ministry of Home Affairs, Ministry of Finance, National Development Planning Board. 2003. *National Policy for the Development of Community-Based Water Supply and Environmental Sanitation*. Jakarta.

sustainable access to safe water supply and improved sanitation, reduced environmental pollution, and improved public health.

14. ADB will provide lending and nonlending finance and technical assistance for (i) sanitation in urban areas (i.e., the Metropolitan Sanitation Management and Health Project, and a multitranche financing facility for Metropolitan Sanitation Management and Health II) and (ii) water supply in urban areas. Support for donor and development partner coordination and knowledge generation will include close collaboration with respective partners in sector development and related sector policy issues, and cofinancing of loan and technical assistance projects.

Problem Tree for Sanitation



Source: Asian Development Bank.

Table 2: Sector Results Framework (Sanitation, 2010–2015)

Country Sector Outcome		Country Sector Outputs		ADB Sector Operations	
Outcomes with ADB Contributions	Indicators with Targets and Baselines	Outputs with ADB Contributions	Indicators with Incremental Targets (Baselines Zero)	Planned and Outgoing ADB Interventions	Main Outputs Expected from ADB Contributions
Reduced environmental pollution in urban areas	Eliminate open defecation by 2015	Access to urban sanitation provided, improved, and maintained through on-site sanitation, communal sanitation, and piped sewerage systems	<p>Urban populations' access to piped sewerage increased by 5% from a 2009 baseline of less than 2%)</p> <p>Communal sanitation provided in all cities, with 226 cities given priority</p>	<p>(i) Planned Key Activity Areas Urban sanitation infrastructure Capacity development technical assistance</p> <p>(ii) Projects in the Pipeline with Estimated Amounts Metropolitan Sanitation Management and Health (\$35 million) Capacity development technical assistance for Metropolitan Sanitation Management and Health (\$1.5 million) Multitranche financing facility for Metropolitan Sanitation Management and Health II (\$400 million)</p> <p>(iii) Ongoing Projects with Approved Amounts Community Water Services and Health Project (\$81.2 million)^a</p>	<p>(i) Planned Key Activity Areas Urban sanitation, including sewerage and communal sanitation, improved in 12 cities Capacity for sanitation management improved in national and local governments</p> <p>(ii) Projects 300,000 households gain access to improved sanitation</p> <p>(iii) Ongoing Projects The Community Water Services and Health Project will provide access to safe water and improved sanitation in rural areas. Up to 1,000 villages will be covered, benefiting up to 1.7 million people.</p>

ADB = Asian Development Bank

^a Consisting of a \$64.7 million loan and a \$16.5 million grant.Sources: Asian Development Bank; Sanitation Development Technical Team. 2009. *Roadmap to Acceleration of Urban Sanitation Development 2010–2014*. Jakarta