

SECTOR ASSESSMENT (SUMMARY): WATER AND OTHER URBAN INFRASTRUCTURE SERVICES

1. Sector Performance, Problems, and Opportunities

1. **Sector Performance.** Urban centers have driven services and manufacturing-led economic growth in India, placing cities at the forefront of the country's economic transformation.¹ According to recent estimates, the urban sector contributed about 63% of the country's gross domestic product in fiscal year 2009, and this is projected to increase to 75% by 2021.² Urbanization in India is estimated to grow from 31% in 2011 to 43% by 2031.³ Madhya Pradesh is in central India and covers 9.5% of the country's total area of 308,000 square kilometers and has a population of 72 million. Although it is an agriculture state, 28% of its population is urban; among the urban dwellers, about 21% live below the official poverty line.

2. **Upgrading urban infrastructure will require a significant increase in investment.** Water supply in India is characterized by low coverage (about 70%), intermittent supply, and poor standards and quality with high nonrevenue water. Thirteen percent of urban households do not have access to latrines, 94% of all cities and towns do not have sewers, and 80% of all sewage generated is discharged untreated. A 2010 study estimates urban infrastructure investment needs of \$1.2 trillion by 2030 (or \$134 per capita per year).⁴

3. **Sector organization in Madhya Pradesh.** The Urban Development and Housing Department (UDHD), headed by a cabinet minister (position currently held by the chief minister), is responsible for urban governance including policy making, regulation, and financial devolution of funds to all urban local bodies (ULBs) in the state. Madhya Pradesh recently established the Madhya Pradesh Urban Development Company Limited to accelerate the implementation of urban development programs. Madhya Pradesh has 378 ULBs comprising 16 municipal corporations, 98 municipal councils, and 264 *nagar parishads* (city councils) with 20.1 million total urban population.⁵ The UDHD is in charge of formulating, designing, and executing water supply and sewerage schemes in ULBs. ULBs are in charge of operating and maintaining water supply and sewerage schemes in each urban area. The Infrastructure and Investment Department facilitates projects executed with private sector participation within the state.

4. **Urban governance needs to be strengthened.** In Madhya Pradesh, ULBs continue to provide core municipal services as obligated under the Municipal Act of 1994. Planning and monitoring of larger projects was recently delegated to the Madhya Pradesh Urban Development Company upon the choice of ULBs. The institutional framework of urban governance has several weaknesses, including (i) incomplete devolution of functions to ULBs, (ii) fragmented lines of authority between various state agencies and ULBs, and (iii) weak capacity in urban planning and service provision. Equal emphasis should be given to addressing gender equality in the context of urban governance.

¹ Government of India, High Powered Expert Committee. 2011. *Report on Indian Urban Infrastructure and Services*. Delhi.

² Government of India, National Planning Commission. 2007. *Report of the Steering Committee on Urbanization, Eleventh Five-Year Plan (2007–2012)*. New Delhi.

³ Government of India, National Planning Commission. 2012. *Report of the Steering Committee on Urbanization, Twelfth Five-Year Plan (2012–2017)*. New Delhi.

⁴ McKinsey Global Institute. 2010. *India's Urban Awakening: Building Inclusive Cities, Sustaining Economic Growth*. New Delhi.

⁵ Government of India, 2011 census. http://www.censusindia.gov.in/2011-common/census_2011.html.

5. **Financing urban infrastructure and services.** Urban infrastructure funding and asset sustainability is challenged by poor cost recovery mechanisms and reluctance on the part of the state government and ULBs to levy adequate user charges. Property tax is one of the major revenue sources for ULBs. Other key sources of revenue, such as publicly owned assets and licenses, remain underutilized. ULBs often have limited financial administrative capacity and are unable to use and mobilize their own resources efficiently. The government needs to increasingly catalyze private sector investments and leverage alternative financing.

2. Government's Sector Strategy

6. The government's strategy focuses on strengthening the five enablers of urbanization—governance, planning, financing, capacity building, and innovation. To further strengthen and expand the initiatives under the Jawaharlal Nehru National Urban Renewal Mission, the Atal Mission for Rejuvenation and Urban Transformation (a new program recognizing differences among cities and incorporating lessons learned) has been launched for implementation. The Swachh Bharat (Clean India) Mission for Urban Areas, launched in October 2014, is a flagship program to eliminate open defecation, achieve municipal solid-waste management, and generate awareness and promote behavioral change in sanitation. Also, the list of 60 cities selected for implementing the Smart Cities program has been released by the ministry. The water sector strategy should aim at improving demand management, reducing the gap between water supplied and sewage treated, and enhancing system efficiencies through loss reduction and improved tariffs. India's Water Policy 2013 calls for a paradigm shift in the management of water resources.

7. **Madhya Pradesh Vision 2018.** The government of Madhya Pradesh (GoMP) recently set up Vision 2018, comprising various missions for the overall development of the state. The vision in respect of water supply is spelled out in mission 8, and some of the key strategic initiatives in urban water supply are summarized as (i) universal coverage, including (a) expanding drinking water supply coverage to provide 135 liters per capita per day to each household in urban areas, and (b) making a paradigm shift from overwhelming dependence on groundwater to surface water sources; and (ii) regulatory and monitoring reforms, including (a) establishing a water sector regulator to regulate service levels, tariffs, new investments, etc.; (b) developing new and innovative models to attract private partners in water supply distribution and maintenance; (c) preparing detailed operation and maintenance (O&M) guidelines and establishing systems for their implementation, with capacity building and training being an integral part of the O&M system; and (d) implementing a major initiative, including an information and communication technology campaign, to sensitize the urban communities about their responsibilities toward O&M of piped water supply systems.

8. **Government program.** The investment focus until 2010 in Madhya Pradesh was primarily on increasing the bulk water supply into the cities. From the lessons learned, the UDHD has changed focus from asset creation to service delivery. The state implemented two long-term concession contracts (Khandwa and Shivpuri) for improving water services through private sector engagement. Although the Khandwa⁶ concession has some unbalanced risks (and hence has some problems in achieving the target service levels), it has helped the implementing agencies (ULBs and UDHD) improve the contract structures in later contracts. The state has a focused urban water supply improvement program, titled Mukhya Mantri Shehari Peyjal Yojana, and so far water supply infrastructure improvement works have been taken up in about 99 towns and another 36 towns. In addition, the state received substantial assistance under the Urban

⁶ S.Kacker et al. 2014. *Running water in India's cities: A review of five recent PPP initiatives*, Water Sanitation Program. Washington, DC: The World Bank.

Infrastructure Development Scheme for Small and Medium Towns. The UDHD has planned to cover all the ULBs in Madhya Pradesh.

3. ADB Sector Experience and Assistance Program

9. **ADB sector experience in India and Madhya Pradesh.** ADB's urban sector portfolio consists of 19 projects under implementation, including six project loans and 15 tranche loans under nine multitranches financing facilities. ADB's interventions have supported provision of integrated municipal infrastructure (water, sanitation, solid-waste management, traffic management and mass-transit corridors) promoting environmental sustainability. ADB successfully implemented the Urban Water Supply and Environmental Improvement Project from 2003 to 2013, improving the urban infrastructure and environment in the cities of Bhopal, Indore, Jabalpur, and Ratlam.⁷ It provides basic services of water supply, sanitation, and garbage collection and disposal in these cities. The major outputs have been achieved with the water treatment capacity of 525 million liters per day, sewage treatment capacity of 75 million liters per day, and expansion of the water distribution system to a total urban population of about 5.6 million.

4. Road Map

10. **ADB's new urban sector strategy.** Building on past experience and recognizing the strategic priorities of India and ADB, the investment programs for the urban sector will promote innovation and value addition through (i) integrated and strategic regional and metropolitan planning leveraging economic advantage while addressing environmental and equity challenges; (ii) well-organized provision of urban infrastructure and services through a framework that defines appropriate medium- and long-term roles for the public and private sectors and leverages additional finances while encouraging technical advancement; (iii) new municipal financing models; (iv) strengthening governance and reforms for service delivery; and (v) institutional capacity to support that.⁸ ADB shall also support institutional reforms and organizational developments to improve interagency coordination and planning, and management integration. ADB's urban program will help India achieve the Sustainable Development Goals⁹ by continuing to support the government's urban strategy and aligning itself with the government's three flagship urban programs—Smart Cities, the Atal Mission for Rejuvenation and Urban Transformation, and the Swachh Bharat Mission.

5. Proposed Sector Modality

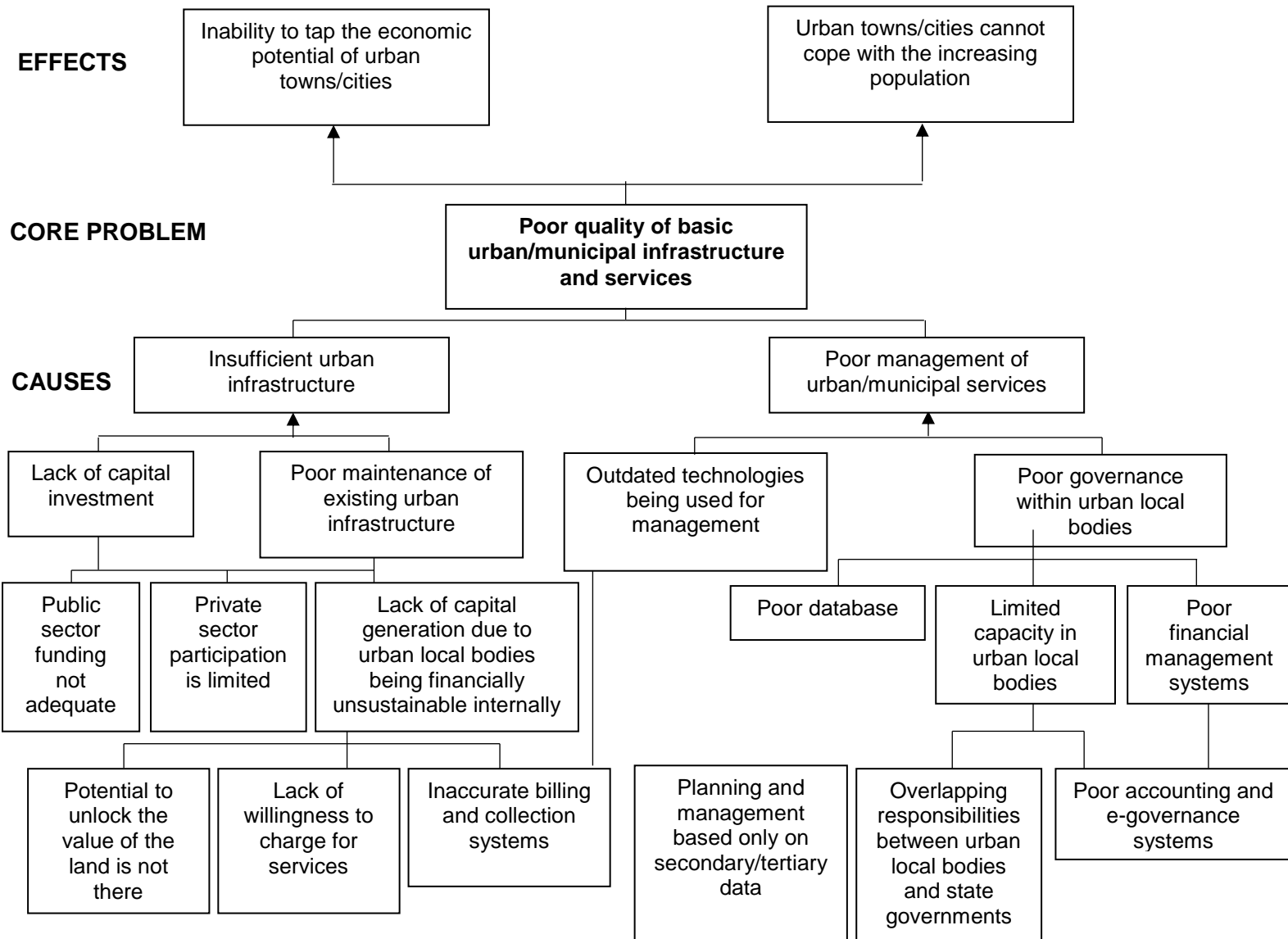
11. One of the important lessons learned by the GoMP, also reiterated in the review of the country partnership strategy, 2009–2012, is that the investments have to be coupled with sustainable and vibrant institutions and effective governance systems to sustain and maximize their impacts. Accordingly, the GoMP has committed to developing a long-term urban development policy that stimulates investments in urban infrastructure, and, simultaneously, addresses institutional deficiencies and targets major reforms in urban governance.

⁷ The project completion report: <https://www.adb.org/>

⁸ ADB. 2013. *Country Partnership Strategy: India, 2013–2017*. Manila.

⁹ Goal 6: Ensure availability and sustainable management of water and sanitation for all; Goal 8: Promote sustained, inclusive, and sustainable economic growth; full and productive employment; and decent work for all; Goal 9: Build resilient infrastructure, promote inclusive and sustainable industrialization, and foster innovation; and Goal 11: Make cities and human settlements inclusive, safe, resilient, and sustainable.

PROBLEM TREE



Source: Asian Development Bank.

Sector Results Framework (2015–2017)

Government Sector Objectives	Sector Outcomes that ADB Contributes to and Indicators	ADB Areas of Intervention	ADB Indicative Resource Allocation in the Next Pipeline and Strategic Priorities
<p>Provision of basic amenities such as safe drinking water, sewage, and waste management, and sanitation facilities in urban agglomerations at affordable cost to the urban poor</p> <p>Improvement of water management including recycling of waste water in large cities and new townships</p>	<p>More people enjoy improved supply of drinking water and sanitation services. 100.0% of urban households have access to safe drinking water (tap, hand pump, or tube well) by 2017 (2011 baseline: 91.4%); 100% of urban households have a latrine facility within their premises by 2017 (2011 baseline: 81.4%); 100.0% of urban households have minimum levels of solid-waste collection (2011 baseline: 72.0%)</p>	<p>Drinking water system, sanitation systems, industrial waste water, waste water management, tariff policy and sector development, urban governance, urban planning, urban environmental policies, PPPs, and urban health care</p>	<p>\$1.94 billion, 24% of total 2015–2017 lending, of which ESG 71% GEM 74% PSD 65% RCI 21%</p> <p>\$922 million approved during 2013–2014, of which ESG 46% GEM 46% PSD 80%</p>

ADB = Asian Development Bank, ESG = environmentally sustainable growth, GEM = gender and equity mainstreaming, PPP = public–private partnership, PSD = private sector development, RCI = regional cooperation and integration.

Sources: Government of India, Planning Commission. 2011. *Report of the Steering Committee on Urbanization, Twelfth Five-Year Plan (2012–2017)*. New Delhi; ADB. 2014. *Country Operations Business Plan: India, 2015–2017*. Manila.