

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

### Sector Roadmap

#### 1. Sector Performance, Problems, and Opportunities

1. **Sector performance and key achievements.** Cambodia's 2016 population is estimated at 15.2 million, spread across 24 provinces, 26 cities, and numerous district towns.<sup>1</sup> Cambodia's rural population is almost 80% of the total population. Although the urbanization rate in Cambodia is substantially lower than the worldwide figure of 50%, rural to urban migration has accelerated noticeably, posing significant challenges to the government. The rate of growth of the urban population (averaging 2.6% per year during 2004–2013) far exceeds rural population growth and 50% of the nation's gross domestic product is produced in urban areas. While urban development and urbanization can be viewed as an indicator of development progress, the implications of higher density and spatial concentration—traffic congestion, air and water pollution, social and environmental problems associated with dense living, increased income disparities, land degradation, and depletion of natural resources—need to be addressed urgently.

2. The government has made considerable progress in improving water supply and sanitation, yet demand far outstrips the government's ability to deliver. In 2014, 69.7% of the urban population (excluding Phnom Penh at 93.4%) had access to improved water supply services, compared with 51.1% for rural areas. About 42.2% of urban households have access to a piped water supply (90.5% in Phnom Penh), compared with 9.0% in rural areas. Combined drainage and/or sewer networks and wastewater treatment are in place in Phnom Penh, Siem Reap, Battambang, and Sihanoukville but coverage remains low. Where no sanitation networks exist, wastewater is discharged directly to the subsoil or via open drainage channels to surface water drains. About 80.2% (98.1% in Phnom Penh) of the urban population has access to improved sanitation and about 1.5% still practice open defecation. In rural areas, only 46.2% have access to improved sanitation, while 46.9% still practice open defecation. Most urban areas are poorly equipped to deal with the increasing annual threat of flooding and drought.

3. **Core problem and key issues.** The underlying problem of inadequate water supply and sanitation plus low levels of service provision stems from a weak regulatory environment, limited government capacity to provide services, and lack of adequate financial resources and revenue streams for capital expenditures and operation and maintenance of assets. This results in inadequate quality, availability, and accessibility of services, particularly for the poor and other vulnerable groups. The main issues in sector outputs and consequences are discussed in paras. 4–7.

4. There are no legal or regulatory instruments governing water supply and sanitation (rural and urban) and the government does not have a holistic strategy for integrated urban development. These issues constrain private sector interest in the sector, particularly in rural areas. There is also a lack of coordination and clear-cut jurisdictional and administrative boundaries as well as overlapping responsibilities among government agencies. However, recent coordination between the Ministry of Rural Development and the Ministry of Industry and Handicraft has aided in clarifying the responsibilities and boundaries for rural and urban water supply based on the existing laws. In 2016, new, larger service areas were agreed for each of the public provincial waterworks.

---

<sup>1</sup> Government of Cambodia. 2014. *Cambodia Inter-Censal Survey (CHDS) 2014*. Phnom Penh.

5. The public and private sectors have few experienced managers, engineers, planners, technicians, and social or health specialists working in water and other municipal services. The general shortage of qualified and experienced staff is even more evident in the provinces. Incentive structures are not in place. For example, salary structures and working conditions do not help retain staff, resulting in high turnover rates and the risk that staff will leave their position for other employment, undermining existing capacity building and training efforts.

6. The private sector has a limited role in the provision of urban services and has limited access to finance to expand and improve, contributing to the general lack of investment. Other factors affecting the sector include (i) the adverse effects of climate change, evidenced by the increasing intensity of storms and floods along with extended periods of drought, particularly in areas that depend on groundwater and rainwater harvesting during the dry season; (ii) lack of access to water supply and sanitation services, especially for vulnerable groups and the poor, because of the high initial costs of a water supply connection; and (iii) rapid urbanization and migration of people from rural to urban areas, in part because of disparities between urban and rural development, which widens the gap between the supply of and demand for urban services.

7. **Opportunities for further development of water and urban services.** The challenges are immense for the sector given the low level of water supply and sanitation coverage, and the accelerating rate of urban development in Cambodia. To this end, three crosscutting themes from the country partnership strategy for Cambodia, 2014–2018—strengthening rural–urban–regional links, climate change, and inclusive development—will be mainstreamed in water supply, sanitation, and urban development projects.<sup>2</sup> By strengthening urban–rural–regional links, urban development can help promote greater agricultural productivity through improved connectivity and access to markets and services, assisting in raising incomes and paving the way to improve water supply and sanitation services. Awareness of climate change adaptation and mitigation of its adverse impacts has improved in recent years, and the government has accelerated its support to enhancing climate change-resilient infrastructure projects and mainstreaming related measures in urban planning processes. Inclusive development is promoted by providing access to basic services, particularly to vulnerable groups and the poor, and by providing social protection measures such as targeted subsidies. For urban water supply and sanitation, the opportunities lie in supporting governance and legislation, capacity building of central and provincial agencies, and investments to support climate change and operational and financial sustainability.

## 2. Government's Sector Strategy

8. The Rectangular Strategy on Growth, Employment, Equity and Efficiency, Phase III provides the overall framework for the policies to guide long-term sustainable development with a focus on good governance, peace, political stability, social order, macroeconomic stability, environmental sustainability, partnership, and regional integration.<sup>3</sup> The National Strategic Development Plan, 2014–2018 further details the rectangular strategy.<sup>4</sup> The plan's key actions for water supply are to (i) develop a legal framework for urban water supply; (ii) decentralize and deconcentrate; (iii) transfer full autonomy for service delivery to public water utilities; (iv) increase sector financing; (v) improve sector performance and expand access to safe, affordable, and

<sup>2</sup> ADB. 2014. *Country Partnership Strategy: Cambodia, 2014–2018*. Manila

<sup>3</sup> Government of Cambodia. 2013. *"Rectangular Strategy" for Growth, Employment, Equity and Efficiency Phase III*. Phnom Penh.

<sup>4</sup> Government of Cambodia. 2014. *National Strategic Development Plan, 2014–2018*. Phnom Penh.

sustainable water supplies; and (vi) improve water source protection and enforcement of regulations.

9. The 2003 National Policy on Water Supply and Sanitation established the basic principles for urban and rural water supply and sanitation service delivery in the country, including duties and responsibilities for planning and implementation, standards, and oversight and evaluation. This included calls for greater private sector participation, improved cost recovery, cross subsidies where necessary, the autonomy of public utilities, and the establishment of a regulatory body. Responsibility for the water and sanitation sector is nonetheless fragmented, requiring cooperation among ministries to continue to implement the principles of the national policy.

10. The Ministry of Industry and Handicraft (MIH) is responsible for urban water supply, while delivery is entrusted to provincial waterworks and the private sector. The Ministry of Public Works and Transport (MPWT) is responsible for urban sanitation, while operation and maintenance are under provincial wastewater units. Cambodia's 2015 Millennium Development Goals for access to improved urban water supply (80%) and sanitation (74%) have been achieved, but access to piped water and improved sanitation outside of Phnom Penh remains low (see para. 2). In 2014, MIH launched a sector reform program to improve urban water supply services that focused on performance improvement and efficiency gains, based on current assets and minor tariff adjustments. By 2016 all provincial waterworks were in profit and operating more effectively.

11. The Ministry of Rural Development (MRD) is responsible for the provision of rural water supply and sanitation. The Rural Water Supply, Sanitation, and Hygiene Strategy of MRD plans to achieve 100% access to safe, affordable, and sustainable water supply and sanitation by 2025, while the National Action Plan for Rural Water Supply, Sanitation, and Hygiene details the government's plans for the subsector for 2014–2018.<sup>5, 6</sup>

### 3. ADB Sector Experience and Assistance Program

12. **Support for key pillars of the country partnership strategy, 2014–2018.** ADB is continuing its long-term support to rural water supply and sanitation and remains the largest contributor to the subsector. Following its limited involvement since 2007, in 2013, ADB has re-engaged in urban water supply and urban development projects to increase access to municipal services. During 2014–2018, ADB operations in the urban sector focus on supporting two strategic pillars—rural–urban–regional links, and human development—and the facilitating pillar of public sector management. Under the first pillar, rural water supply and sanitation projects provide essential rural services to improve health and productivity, while urban development supports agricultural productivity, improve connectivity, and establish markets for agricultural production through investments in water supply, municipal services, and other infrastructure. Under the human development pillar, the sector focus is on improved rural and urban management capacity, while support for the public sector management pillar addresses issues pertaining to decentralization and deconcentration, as well as improving public financial management capacity.

13. **Urban water supply and sanitation.** ADB's support to the urban water supply and sanitation sector includes the Provincial Towns Improvement Project (completed in 2006),<sup>7</sup> and

<sup>5</sup> MRD. 2011. National Strategy for Rural Water Supply, Sanitation and Hygiene 2011–2025. Phnom Penh.

<sup>6</sup> MRD. 2014. National Action Plan for Rural Water Supply, Sanitation, and Hygiene 2014–2018.

<sup>7</sup> ADB. 1999. *Report and Recommendation of the President to the Board of Directors on a Proposed Loan to the Kingdom of Cambodia for the Provincial Towns Improvement Project*. Manila.

the on-going Urban Water Supply Project (approved in 2014),<sup>8</sup> which provides new water systems in two provincial towns and rehabilitates water supply infrastructure and extends system coverage in seven towns. ADB assistance currently supports (i) policy development and implementation of strategic investment plans; (ii) decentralization of water supply functions and capacity strengthening of water utilities; (iii) investment financing, including cooperation with local private companies in financing water supply infrastructure; and (iv) water operators' partnerships, where strong water utilities, such as the Phnom Penh Water Supply Authority, help weaker utilities improve operational performance and service delivery. ADB supports a holistic approach to urban water supply and wastewater management whereby water supply and sanitation projects can be combined, environmental degradation and climate change issues addressed, and sustainable services provided through affordable tariffs and user charges, while fully recovering operating and reinvestment costs. A 20-year investment program for sanitation has been supported by ADB.<sup>9</sup>

14. ADB's future pipeline will continue to expand water supply and sanitation in key provincial towns while leveraging opportunities in a few key areas. Expansion of systems for urban water supply (where investments needs in infrastructure are significant) and sanitation (sewerage and/or septage management depending on the stage of development of each town), including household connections to these systems remains an urgent priority as highlighted in the draft sector roadmap and 20-year investment program for sanitation developed in February 2017 with ADB support. ADB and other development partners are supporting the development of water regulation, including technical standards for water supply and water quality, and MIH's capacity to manage and monitor under ongoing and proposed loans. ADB is also supporting MPWT in sanitation policy, particularly in the areas of tariff recovery, subsidies, and city-wide sanitation. Management capacity at provincial waterworks will need to be strengthened in line with the sector reform undertaken by MIH. Synergies with ADB's broader urban program, which largely focuses on towns in the Tonle Sap provinces and in the GMS economic corridor towns, will continue. The proposed Provincial Water Supply and Sanitation Project will leverage the aforementioned issues and/or opportunities through investments in water supply systems, sanitation infrastructure and services, and capacity building in Battambang, Kampong Cham, Siem Reap, and Sihanoukville.

15. **Mainstreaming crosscutting issues into water supply, sanitation, and municipal services operations.** This will focus on (i) governance, as service providers (both public and private) move towards greater levels of autonomy and the two ministries (MIH and MPWT) improve regulation of these services; (ii) climate resilience and environmental protection, to mitigate and adapt to changes in climate in collaboration with the Cambodia Climate Change Alliance and the Ministry of Environment; and (iii) gender mainstreaming, particularly through gender working groups in each ministry and with the transfer of functions from national to subnational levels, which provides greater opportunity for women in government and in the provision of local rural and urban services. ADB interventions will promote gender equality by improving women's participation in decision making. The investments will encompass strategies for women's (i) involvement in community infrastructure management committees; (ii) capacity development and access to employment generated from construction, management, and maintenance of local infrastructure; and (iii) access to resources for enterprise development.

---

<sup>8</sup> ADB. 2014. *Report and Recommendation of the President to the Board of Directors on a Proposed Loan to the Kingdom of Cambodia for the Urban Water Supply Project*. Manila.

<sup>9</sup> The draft 20-year sanitation roadmap (expected to be adopted by 2020) provides directions on (i) tariff setting and cost recovery, (ii) subsidies to encourage increased uptake of sanitation, and (iii) city-wide sanitation planning and implementation. It also presents common aims and standards for all departments of public works and transport to (i) reduce the differences in capacity, (ii) improve planning for increased sanitation coverage, and (iii) improve coordination between the WSS subsectors.

### PROBLEM TREE FOR WATER SUPPLY AND SANITATION

