

SECTOR ASSESSMENT (SUMMARY): WATER SUPPLY AND OTHER MUNICIPAL INFRASTRUCTURE AND SERVICES

Sector Road Map

1. Sector Performance, Problems, and Opportunities

1. In Cambodia, the urban sector (20% of the population) is estimated to account for 50% of gross domestic product (GDP). By 2020, the urban population is expected to reach 30% or 5.6 million with a GDP share of 70%, thus further contributing to the urban–rural divide in the country—a serious threat. For decades, Phnom Penh, the capital city, has dominated the urban sector, currently attracting about 80% of investments and 21,800 in-migrants per year. Urban growth constitutes a great opportunity for the whole country. However, the biased distribution reflects the growing social inequality—Gini coefficient 0.42. It deprives poor rural areas of the benefits of balanced urban development. Phnom Penh accounts for 55% of the urban population; this share will not change much by 2020. The 10 largest cities and towns in 2020 will have populations of 1.7 million to 2.1 million, indicating a considerable potential for regional urban development.

2. The growth of the urban sector is strengthened by the market orientation of the economy and the regional policy of open borders in the Greater Mekong Subregion (GMS). Urban development policy must strive to be inclusive (all social strata) and responsive to regional poverty reduction. Urbanization must be as approached as a major task of government and civil society, aiming at a development policy that is both pro-poor and pro-rural. This requires efforts to support the lower-ranking urban centers, i.e., secondary cities and smaller rural towns.

3. **Water supply and sanitation.** Access to safe (or improved) water supply, sanitation, and hygiene (i) brings economic development and poverty reduction; (ii) ensures food safety and better livelihoods; (iii) preserves the environment; (iv) reduces health burdens; (v) influences school enrollment and retention rates, especially for girls; and (vi) empowers communities and provides opportunities for women.

4. The target for water supply and sanitation coverage in 2015 is for 80% of the urban population and 50% of the rural population to have access to improved water supply. The variation in coverage figures is often influenced by the definitions used when measuring “improved” water supply and sanitation. Regional disparities also exist; more than 76% of residents in Phnom Penh have access to piped water supply compared with the national average of 42%. Private companies (or small-scale providers) provide access to water supply for another 10% of the urban population. Wastewater treatment plants (e.g., lagoon systems and waste stabilization ponds) exist in Phnom Penh, Siem Reap, Sihanoukville, and Svay Rien. Additional small-scale systems exist at health facilities around Cambodia. In areas without coverage, wastewater is either discharged directly to the subsoil or discharged via open drainage channels to surface water, using various forms of on-site sanitation facilities (e.g., septic tanks, lined or unlined pits, and overhanging latrines).

5. **Urban issues.** Linked to the gap between urban growth and slow institutional development, the five major strategic issues are (i) recognition of the economic importance and potential of urban development; (ii) integration of the urban development agenda with other policy reforms and strategies, including transport, agriculture, and natural resources management; (iii) inadequate local revenues to finance urban development (for instance from land taxation and various consumption fees); (iv) centralization of urban infrastructure

development and finance, given limited staff and financial resources of the newly established municipalities; and (v) need to improve urban management capacity.

6. **Major challenges.** While water supply and sanitation coverage is increasing in Cambodia, the sector faces three core constraints: (i) insufficient funds to expand coverage and/or improve service; (ii) weak sector planning and implementation capacity of responsible central, regional, local, and commune authorities; and (iii) inadequate (or sometimes weak) institutional and legal framework. These constraints, compounded by external factors, result in slower achievement of the government's sector goals and progress toward the Cambodia Millennium Development Goal (CMDG) targets 7.10 and 7.12. A broad assessment and problem tree analysis was completed to highlight key underlying issues.

2. Government's Sector Strategy

7. **Comprehensive decentralization and deconcentration reforms.** The government's decentralization and deconcentration framework is set out in *The Strategic Framework for Decentralization and Deconcentration Reforms* (2005) and in legislation such as the Law on Administrative Management of the Capital, Provinces, Municipalities, Districts and Khans (the Organic Law) (2008). The Organic Law gives legal responsibility to provincial, district, and commune councils to administer their affairs, including development plans. This strengthens their role in the oversight and evaluation of projects, especially the functions of three commune committees for project planning, management, and implementation. The Ministry of Interior and the Ministry of Rural Development (MRD) recently clarified the role of village development committees within the overall framework through Interministerial Prakas No. 2391/22, December 2010. As a result, additional staffing, capacity development, and financial resources will be needed to support subnational administrations to allow for efficient delivery of new responsibilities.

8. **Access to water and sanitation.** The government considers improved access to water supply and sanitation to be a prerequisite for poverty reduction. The Ministry of Industry, Mining and Energy (MIME) and MRD jointly prepared the National Policy on Water and Sanitation in February 2003. The policy (i) sets the role of the government as sector facilitator, enabling other organizations to deliver actual services; (ii) prioritizes services for the poor; (iii) defines the role of the private sector in service delivery; and (iv) establishes the role of communities in managing their water supply and sanitation facilities and services. Since developing the policy framework, the government has clarified several issues through subsequent agreements covering cooperation between MIME and MRD. A sector investment strategy for urban and rural water supply and sanitation (2010–2028) was prepared with support from the Water and Sanitation Program; it has not been finalized. The study identifies financing gaps, several development scenarios to reduce financing requirements, and funding sources; and estimates investment needs to 2028 at \$19 billion.

9. **Rural water supply and sanitation.** MRD approved a national rural water supply, sanitation, and hygiene strategy for 2010–2025 on 1 March 2011. In 2008, ADB supported an update of the sector investment plan. Based on the coverage figures in the Ministry of Planning's *2008 Statistical Yearbook*, \$37 million is estimated to be needed for infrastructure alone to achieve the CMDG targets, an additional 130,000 rural residents will require access to safe drinking water and about 1.48 million will need access to improved sanitation. About \$49.6 million of the total sector investments have been committed from 2008 to 2015 for infrastructure, capacity development, and administration and management.

10. **Urban water supply and wastewater management.** Following the ratification of the policy, neither MIME nor the Ministry of Public Works and Transport (MPWT) formulated a sector strategy. In March 2010, MIME finalized its action plan for 2009–2013, focusing on three programs: (i) facilitating private sector partnerships, (ii) strengthening management of publicly owned water supply agencies, and (iii) integrating urban water supply with urban environmental management. Sufficient information on the government’s wastewater management strategy is not available; it will be collected during the preparation of the GMS Corridor Towns Development Project.

11. Considering the huge investment needs, the local private sector must be expanded in rural and urban areas. With more than 300 registered private water supply operators, service delivery and operating capacity is low. Effective regulation, capacity, and funding support to the private sector are therefore required. For rural water supply and sanitation, MRD is increasing its efforts to increase private sector involvement.

3. ADB Sector Experience and Assistance Program

12. ADB’s recent urban infrastructure experience is limited to the highly successful Phnom Penh Water Supply and Drainage Project,¹ jointly financed through parallel cofinancing with the World Bank; and the Provincial Towns Improvement Project,² which was rated successful. The recent wastewater treatment plants in Siem Riep and Sihanoukville,³ however, have had some problems with revenue collection and sustainability. In addition some small-scale community-based solid waste management is operating in Phnom Penh.

13. **Current ADB assistance for water and sanitation.** ADB support for rural water supply and sanitation includes the Tonle Sap Rural Water Supply and Sanitation Sector Project (2006–2010)⁴ and the Second Rural Water Supply and Sanitation Sector Project (2009–2015). These projects focus on expanding access to rural water supply and sanitation in six provinces around the Tonle Sap. ADB has been providing assistance for urban water supply since 1993. It supported the Phnom Penh Water Supply Authority (PPWSA) with sector capacity building and investment in 1996. Since then, additional projects include (i) the Provincial Towns Improvement Project,⁵ which constructed and rehabilitated water supply works in six provinces around the Tonle Sap and a centralized wastewater treatment plant in Sihanoukville; and (ii) a regional tourism project that financed the construction of a wastewater treatment plant in Siem Reap (footnote 3). Other support includes a completed regional project preparatory technical assistance (PPTA) for water supply and sanitation along the economic corridors of the GMS (2010). ADB has also been facilitating partnerships of water operators within the region. The latest partnership includes one between PPWSA and the Nam Papa Lao Vientiane.

14. **Future ADB interventions for urban development.** The programs and projects under the ADB strategy are proposed to meet the principle of being complementary to other ADB

¹ ADB. 2005. *Completion Report: Phnom Penh Water Supply and Drainage Project in Cambodia*. Manila (Loan 1468-CAM [SF]).

² ADB. 2008. *Completion Report: Provincial Towns Improvement Project in Cambodia*. Manila (Loans 1725-CAM and 2013-CAM).

³ ADB. 2011. *Completion Report: Greater Mekong Subregion: Mekong Tourism Development Project in Cambodia*. Manila (Loan 1969-CAM).

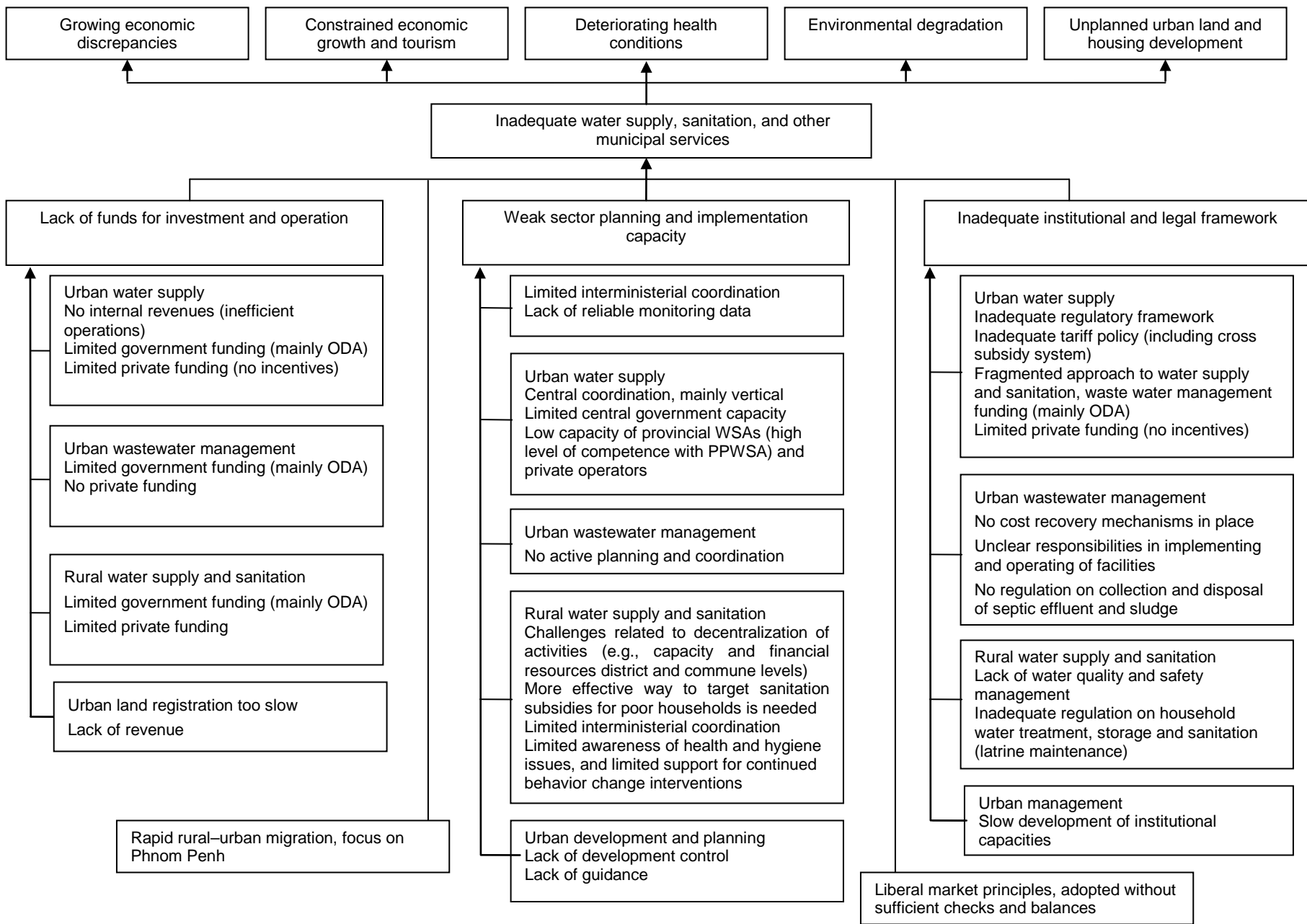
⁴ ADB. 2011. *Completion Report: Tonle Sap Rural Water Supply and Sanitation Sector Project in Cambodia*. Manila (Grant 0018-CAM). The project operated in six provinces, providing more than half million people with improved water and nearly a quarter million with improved sanitation (household latrines).

⁵ ADB. 2011. *Completion Report: Provincial Towns Improvement Project in Cambodia*. Manila (Loans 1725-CAM and CAM-2013).

interventions. ADB-funded interventions will be primarily multisectoral, preferably incorporating rural–urban linkages. The mode of operation will emphasize cooperation with other development partners (external funding and technical assistance grants), and partnerships of (local) government and the private sector. The close links across the sector strategies indicates the intentions of a pro-poor and pro-rural urban development strategy. Three main support areas are under consideration, with an emphasis on institutional development, capacity building, and capital investment projects: (i) regional development in the framework of GMS cooperation and integration to focus on selected corridor and border towns, through the GMS Corridor Towns Development Project; (ii) urban environmental infrastructure, closely related to previous ADB support to the Tonle Sap Basin, through the Sustainable Urban Development in the Tonle Sap Basin Project, enhancing environment quality and adapting towns to the impacts of climate change; and (iii) institutional and policy development for selected urban areas, as integral components of any investment projects, but also as specific capacity and institution-building programs. A pilot activity will be the Capacity Development for Urban Management Project.

15. **Future ADB interventions for water and sanitation.** ADB should continue its involvement in rural water supply and sanitation given that (i) ADB is a lead agency in the sector, (ii) investment and capacity development assistance is required to help the government meet the sector and CMDG targets, and (iii) more than 80% of the population is rural, with more than 35% of households living below the poverty line. The proposed pipeline reflects this continued engagement in water supply and wastewater management, keeping in mind that responsibility for these two areas falls between two line ministries (MIME and MPWT). Such a review will be part of the institutional analysis for the PPTA for the GMS Corridors Towns Development Project and the proposed PPTA for Integrated Urban Environmental Management in the Tonle Sap. By supporting water operator partnerships, ADB will continue to support regional partnerships and will explore support to domestic partnerships where lead and champion agencies can collaborate with provincial water supply authorities in improving urban water supply delivery.

Problem Tree – Water Supply and Other Municipal Infrastructure and Services



ODA = official development assistance, PPWSA = Phnom Penh Water Supply Authority, WSA = water supply authority.
 Source: Asian Development Bank.

Sector Results Framework: Cambodian Water Supply and Other Municipal Infrastructure and Services

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 Ongoing ADB Interventions	Main Outputs Expected from ADB Contributions
<p>Increased use of priority infrastructure (including water, sanitation, and economic development) by Cambodians (women and men) and businesses</p> <p>Reduced flooding of urban areas</p>	<p>In the Greater Mekong Subregion (GMS) Corridor, Southern Corridor, and North–South Corridor:</p> <p>% of households without toilets from 6.29% (2008) to 0% (2015)</p> <p>% of houses with sewerage connection from 23% (2008) to 50% (2015)</p> <p>% of houses with access to garbage collection from 58.6% (2009) to 80% (2015)</p> <p>Rural population: 50% with access to safe water 30% with access to improved sanitation</p> <p>Incidence of seasonal flooding reduced from XX% to XX%</p>	<p>Improved priority infrastructure</p> <p>Urban: wastewater, water, flood control, markets, urban roads</p> <p>% of women beneficiaries of improved environment services increased</p> <p>% of female participation in economic activities increased to 40%</p> <p>National, provincial, and municipal governments with urban management capacity to better manage the development of urban areas (mainly Rural: water supply and sanitation municipalities) within existing limited resources</p>	<p>Urban areas and GMS Southern Corridor:</p> <p>Water supply coverage: 80% by 2020</p> <p>Piped water supply coverage: 60% by 2020</p> <p>Sanitation strategy operating</p> <p>Wastewater and sanitation infrastructure: 80% by 2020</p> <p>Rural:</p> <p>Water supply coverage: 40.5% in 2008 to 100% in 2020</p> <p>Sanitation coverage: 23.3% in 2008 to 100% in 2020</p> <p>Water supply and sanitation strategy operating</p> <p>Improved district, commune, and village capacity to manage rural water supply and sanitation</p> <p>Improved national and provincial management and operating capacity</p> <p>Continuous capacity development in urban areas (minimum 50, from minimum 5 municipalities)</p> <p>Subnational investment facility launched and tested by 2015</p> <p>Land taxation system set up and tested by 2015</p> <p>Urban information system developed by 2018</p> <p>X% of women being trained</p>	<p>Planned Key Activity Areas</p> <p>Project preparatory technical assistance (PPTA) for GMS Corridor Towns Development Project I, \$700,000)</p> <p>GMS Corridor Towns Development Project: Asian Development Fund loan \$16.17 million with cofinanced PPTA for Integrated Urban Environmental Management in Tonle Sap Basin Project, \$700,000, Japan Fund for Poverty Reduction (JFPR)</p> <p>Technical assistance for Capacity Development for Urban Management, \$700,000 (JFPR)</p> <p>PPTA for the Third rural water supply and sanitation sector project (RWSSP) (\$0.8 million, 2012)</p> <p>Projects in the Pipeline</p> <p>Poor communities livelihood microfinance in Tonle Sap Basin (JFPR), to be determined (TBD)</p> <p>Urban Financing Partnership Facility: 3R (reduce-recycle-reuse) solid waste secondary towns, TBD</p> <p>Third RWSSP (\$20 million, 2013)</p> <p>Integrated Urban Environmental Management in Tonle Sap Basin (\$37 million, 2013)</p> <p>Ongoing Projects</p> <p>Second RWSSSP (\$25.8 million) 2009–2015</p>	<p>Planned Key Activity Areas</p> <p>For each corridor town:</p> <p>Strategic local economic development plans adopted by 2012</p> <p>Priority infrastructure (roads, water supply, sanitation, solid waste facilities, flood control, operational by 2016</p> <p>Technical and financial management training provided to project management and implementation units by 2016</p> <p>Adopted policy on urban wastewater management and financing</p> <p>Adopted policy, implementation guidelines, and regulatory framework for investments in water supply.</p> <p>Capacity building and strategy development</p> <p>Floods are reduced and riverbanks protected</p> <p>Institutional capacity of executing and implementing agencies strengthened</p> <p>Pilot Urban Management Program implemented</p> <p>Upscaling of Urban Management Capacity Development Program</p> <p>Completion of National Urban Development Strategy</p> <p>Institutionalization of the Urban Management Capacity Development Program</p>

Source: Asian Development Bank.