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

Sector Road Map

1. Sector Performance, Problems, and Opportunities

1. **Sector performance and key achievements.** In 2013, about 3.14 million of Cambodia's 14.68 million people (21.4%) lived in urban areas. Although this is substantially lower than the worldwide figure of 50%, 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. Rural areas are becoming increasingly integrated with urban development as a result of increased connectivity (roads, communication, and infrastructure), mobility (economic migration), as well as kinship ties and the formation of social networks. Regional cooperation and globalization have also strengthened links between Cambodia’s urban areas and the Greater Mekong Subregion (GMS) through increased trade and flows of goods and people to neighboring countries. While urban development and urbanization can be viewed as an indicator of development progress, the implications of higher densities 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 other municipal services, yet demand far outstrips the government’s ability to deliver. In 2012, 94% of the urban population had access to an improved water supply (compared with 66% for rural areas). About 67% of households have access to a piped water supply (5% in rural areas), of which about one-third are supplied by 15 private small-scale providers. Combined drainage and sewer networks and wastewater treatment are in place in Phnom Penh and some other towns 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 82% of the urban population has access to improved sanitation and about 7% still practice open defecation. In rural areas only 25% have access to improved sanitation and 66% still practice open defecation. Flooding is an annual threat that most urban areas are poorly equipped to deal with.

3. **Core problem and key issues.** The underlying problem of inadequate water supply, sanitation, and municipal service provision stems from a weak regulatory environment, limited government capacity to provide services, and lack of adequate funding for capital expenditures and operation and maintenance of assets. This results in inadequate quality, availability, and accessibility of services, particularly for the urban poor and other vulnerable groups.

4. Cambodia does not have a holistic strategy for integrated urban development. Similarly, there are no legal or regulatory instruments governing water supply and sanitation, which further constrains private sector interest in the sector. There is also a lack of coordination, overlapping responsibilities among government agencies, and jurisdictional and administrative boundaries are seldom clear cut.

---

3 Other municipal services include urban roads and drainage, solid-waste management, wastewater and sewerage, and flood protection.
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. Limited financial resources and revenue streams for urban infrastructure and services is a key constraint, affecting capital investment and operation and maintenance of assets. With the exception of the Phnom Penh Water Supply Authority, sustainability of urban services is constrained by poor cost recovery in urban water supply, which is normally provided through user charges and fees and land and property taxes. There is no national tariff policy for water supply and government budget and borrowings are limited, which puts sustainability into question. Raising debt to finance urban infrastructure by subnational administrations is currently not feasible because of issues of creditworthiness, onerous lending terms, and lack of local revenue streams to service the debt. The lack of funding is also attributed to the limited role of the private sector in urban services provision. Other constraining factors include (i) the adverse effects of climate change, evidenced by the increasing intensity of storms and floods along with extended periods of drought; (ii) lack of access to urban infrastructure and services, especially for vulnerable groups and the urban poor, because of the high initial costs of a water supply connection; and (iii) rapid urbanization and migration of people to urban areas, which widens the gaps between the supply of and demand for urban services.

7. **Opportunities for further development.** The challenges are immense, given the accelerating rate of urban development in Cambodia, and appropriate holistic interventions are needed. To this end, three crosscutting themes—strengthening rural–urban–regional links, climate change, and inclusive development—will be mainstreamed in water and urban projects. By strengthening urban–rural–regional links, urban development can help promote greater agricultural productivity through improved connectivity and access to markets and services. Progress on raising awareness of climate change adaption and mitigating 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 development planning processes. Inclusive development is promoted by providing access to basic urban services, particularly to vulnerable groups and the urban poor, and providing social protection measures such as targeted subsidies.

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. The National Strategic Development Plan, 2014–2018 further details the rectangular strategy. The plan’s key actions for water supply are to (i) develop a legal framework for urban water supply; (ii) promote decentralization and deconcentration; (iii) transfer full autonomy for service delivery to all public water utilities; (iv) increase sector financing; (v) improve sector performance and expand access to safe, affordable, and sustainable water supplies; and (vi) improve water source protection and enforcement of regulations.
9. Key legislation on urban development includes (i) the 2008 Organic Law, which provides direction for decentralized administration and overall management to improve service delivery at the subnational level; (ii) the 2009 Policy on Sub-National Decentralization and Deconcentration, which recognizes 26 municipalities as the backbone for future urban management; and (iii) the 2011 Law on Administrative Management of the Capital, Provinces, Municipalities, Districts and Khans. The 2003 National Policy on Water Supply and Sanitation calls for greater private sector participation, improved cost recovery, cross subsidies where necessary, autonomy of public utilities, and the establishment of a regulatory body. 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 outside Phnom Penh remains low at about 50%. The government’s vision is 100% access to safe, affordable, and sustainable water supply and sanitation by 2025. The Law on Public Enterprises provides guidance for service providers wishing to achieve greater autonomy. However, the law needs to be updated to be consistent with the Organic Law, which will establish the legal and institutional frameworks for service providers to operate under.

3. **ADB Sector Experience and Assistance Program**

10. **Overview.** The strategic thrust of Asian Development Bank (ADB) urban and water operations will continue to follow the government’s sector strategies and ADB’s Urban Operational Plan (2012–2020); Water Operational Plan (2011–2020); and Urban Development Sector Assessment, Strategy, and Road Map for Cambodia. Investments projects will continue to be in line with ADB’s country partnership strategy, 2014–2018 for Cambodia, which includes rural–urban–regional links as one of two key pillars, and water and other urban infrastructure and services as one of five key sectors. The project will also follow the GMS strategy to transform transport corridors into economic corridors, as identified in the GMS Strategic Framework (2012–2022). The strategic framework is anchored to the corridors development approach, and focuses on multisector investments that are designed to foster economic corridor development, with a focus on stronger cross-sector linkages, better consideration of the spatial aspects of regional economic development, more local stakeholder involvement, and more effective monitoring and evaluation.

11. **Support for key pillars of the country partnership strategy, 2014–2018.** ADB is seeking to re-engage in water supply and municipal services following its limited involvement since 2007. During 2014–2018, ADB operations in the sector will focus on supporting the two strategic pillars—rural–urban–regional links, and human development—and the facilitating pillar of public sector management. Under the first pillar, urban development will be positioned to support agricultural productivity, improve connectivity, and establish markets for agricultural production through investments in water supply, municipal services, and infrastructure. Under the human development pillar, the sector focus will be on improved urban management capacity, while support for the public sector management pillar will address issues pertaining to decentralization and deconcentration, as well as improving public financial management capacity. Key thrusts of the strategy with respect to the water supply and municipal services sector are discussed in paragraphs 12 to 16 below.

---


12. **Mainstreaming crosscutting issues into water supply and municipal services operations.** This will include (i) governance, as service providers (both public and private) move toward autonomy; (ii) climate resilience and environmental protection, to mitigate and adapt to changes in climate in collaboration with the Cambodia Climate Change Alliance and Ministry of Environment; (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 urban services; and (iv) green cities initiatives to reduce resource consumption and greenhouse gas emissions, and improve the urban environment through resource management and partnerships.

13. **Integrated urban environmental management.** Integrated urban environmental management will focus on environmental sustainability of urban areas, including around the Tonle Sap Basin. This includes climate-resilient infrastructure investments, community-driven mobilization and environmental improvements, and institutional development support for urban service units at the subnational level within the decentralization and deconcentration framework.

14. **Development of economic corridor towns.** The competitiveness of towns along strategic economic development corridors, rural–urban links, and links to urban centers in neighboring GMS countries will be strengthened through the formulation of strategic local economic development plans, strategic prioritization of infrastructure investments, and capacity development. Priority infrastructure investments will include urban roads, wastewater management, flood protection and control, solid-waste management, public markets, and transport logistics. This support will build on ongoing GMS projects, including the Southern Corridor Towns Development Project.  

15. **Expansion and rehabilitation of urban water supply and sanitation systems.** Assistance will include (i) support towards 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. In promoting inclusive and gender-sensitive development, ADB interventions will ensure that affordability issues and gender targets are considered. These experiences will build on ADB’s previous experience in the sector, dating back to 1996.

16. **Rural water supply and sanitation.** ADB will continue its involvement in rural water supply and sanitation development given that (i) it is the leading partner in the subsector, (ii) about 80% of the population is rural and more than 35% of households are below the poverty line, and (iii) significant investment and capacity development assistance is required to help the government meet the sector and Millennium Development Goal targets.

---

8. ADB. 2012. *Report and Recommendation of the President to the Board of Directors: Proposed Loan and Administration of Loan and Grants to Kingdom of Cambodia for Greater Mekong Subregion Southern Economic Corridor Towns Development Project.* Manila (Loan 2983-CAM);
Problem Tree for Water and Other Urban Infrastructure and Services

Effects
- Constrained economic growth and tourism development
- Environmental degradation
- Deteriorating health conditions
- Increased frequency and extent of flooding

Core Development Problem
- Inadequate water supply, sanitation, and urban infrastructure and services

Root causes
- Weak regulatory framework and sector planning
  - Urban development: Lack of a clear urban strategy
  - Urban water supply: No water supply law
  - Urban wastewater management: No regulation on collection and disposal of septic effluent
  - Rural water supply and sanitation: Decentralization challenges; limited health and hygiene awareness; water safety management; and regulation at household level

- Weak institutional capacity to implement and provide sustainable services
  - Lack of management and technical skills
  - Weak interagency coordination; gaps and duplication of services
  - High staff turnover and low efficiency

- Lack of funds for investment and operation
  - Poor cost recovery
  - Limited public funding for capital expenditures and operation and maintenance
  - Limited private sector participation
  - Non conducive business environment

Other factors
- Climate change and environmental protection
- Inequitable access to urban services
- Rapid urbanization and urban-rural disparities
- Rural water supply and sanitation: Limited awareness of health and hygiene, and poor targeting of beneficiaries

### Sector Results Framework (Water and Other Urban Infrastructure and Services, 2014–2018)

<table>
<thead>
<tr>
<th>Country Sector Outcomes</th>
<th>Indicators with Targets and Baselines</th>
<th>Country Sector Outputs</th>
<th>Indicators with Incremental Targets</th>
<th>Planned and Ongoing ADB Interventions</th>
<th>Main Outputs Expected from ADB Interventions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Outcomes with ADB Contribution</td>
<td>By 2018: Rural population with access to safe water 67% and improved sanitation 60%. 2013 baseline: 44.2% for water and 37.5% for sanitation</td>
<td>Increased access to improved WATSAN facilities in rural areas</td>
<td>50 communes provided with rural WATSAN coverage by 2018, including 250,000 poor and women beneficiaries. 2010 baseline: 0</td>
<td>Planned key activity areas</td>
<td>Planned key activity areas</td>
</tr>
<tr>
<td></td>
<td>By 2018: Improved urban water performance and all 12 public water utilities become autonomous. 2013 baseline: 2.</td>
<td>Urban water supply and urban sanitation systems expanded and operational</td>
<td>6,000 piped water supply connections, including 15,000 poor and women beneficiaries. 2014 baseline: 0</td>
<td>Rural WATSAN projects</td>
<td>Policy framework and implementation guidelines for improved integrated urban environmental management and WATSAN in rural areas</td>
</tr>
<tr>
<td></td>
<td>By 2018: Two towns with improved municipal services working toward full operation and maintenance cost recovery for key services. 2014 baseline: 0.</td>
<td>Fully operational urban management and capacity plan and execute urban development programs</td>
<td>6,000 sewer connections in urban areas by 2018. 2014 baseline: 0</td>
<td>Urban water supply projects</td>
<td>Pipeline projects</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Phnom Penh and 5 provincial cities equipped with local strategic development plans, urban management and financial capacity. 2014 baseline: 0</td>
<td>Urban development projects</td>
<td>Second Rural WATSAN- additional financing ($20.0 million)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Pipeline projects</td>
<td>438 kilometers of new and rehabilitated water mains</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>11,600 new urban water connections</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>4,500 new urban wastewater connections</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1,200 hectares of urban areas protected from flooding</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>60% of urban residents having access to solid waste disposal</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>70,000 rural households with safe water supply</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>47,000 new latrines provided in rural areas</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td><strong>Ongoing projects</strong></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>69,000 rural households with safe water supply</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>46,000 new latrines provided in rural areas</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>45 officials in 9 provinces trained in urban management, of which at least 25% are women.</td>
</tr>
</tbody>
</table>

**ADB = Asian Development Bank; GMS = Greater Mekong Subregion, WATSAN = water supply and sanitation.**

Urban environmental management, broadly defined, includes water supply, drainage, wastewater treatment, flood protection, and solid waste management.