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

A. Sector Performance, Problems, and Opportunities

1. Rapid urbanization and increasing role of cities. The Lao People’s Democratic Republic (Lao PDR) is the fastest urbanizing country in Southeast Asia after the Philippines. Its population reached 6.69 million in 2017, from 5.62 million in 2005, growing at an annual average of 1.45%. Cities in the Lao PDR now house almost three times the population than they did in 1995 (from 0.77 million in 1995 to 2.14 million in 2015). Of the total urban population, about 70% is concentrated in the provinces of Champasak, Louangphabang, Savannakhet, Vientiane, and Xaignabouli.

2. The increasing urbanization levels are the result of consistent economic growth, expanding agglomeration of economic activities in and around cities, and rural–urban migration. The robust economic growth contributed to improvements in social indicators and a decline in the poverty incidence. The economy of the Lao PDR is gradually undergoing a structural shift from hydropower, minerals, and agriculture to tourism, services, and industry. As the economy diversifies and opportunities increase, cities will play an increasingly important role in the sustenance of this growth. This concentration of opportunities in and around urban areas is expected to lead to continued rural–urban migration and further growth of the cities. Consensus is building that urban infrastructure and an improved urban environment are necessary conditions for sustained economic growth in the Lao PDR.

3. Sector performance and key achievements. The Government of the Lao PDR decentralized water and sanitation services in 1999 and has focused on improving access and coverage to water and sanitation facilities. The sector’s performance has substantially improved since 2001 when the reform measures were implemented.

4. By 2015, 69% of the urban population had access to piped water supply. The coverage of improved sanitation facilities in urban areas had increased to 94% in 2015, and only about 1% of the population was still practicing open defecation. The country met its Millennium Development Goal target 7.c of halving the proportion of the population without access to safe drinking water and basic sanitation.

5. Core problem and key issues. In the water supply subsector, the government has set a target of covering 80% of the population in urban areas with access to piped water supply by 2020, and 90% by 2030. In the sanitation subsector, the country needs to augment the collection and disposal infrastructure for wastewater. Pour-flush toilets connected to septic tanks (either individual or communal) or pit latrines are the most commonly used arrangements for waste disposal, so cities need to invest in scientific collection and treatment of wastewater. Currently none of the cities is covered by a sewerage network or wastewater treatment plants. In the solid waste management segment, although each major city has a designated waste disposal site, the collection and disposal facilities need to be augmented and regulated to ensure scientific waste handling and treatment before disposal.

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6. In overcoming these infrastructure and systemic gaps, the Lao PDR will need to address the institutional or governance challenges and close the financing gap to achieve the next set of development milestones. It faces four core sector issues: (i) a still-evolving institutional and regulatory framework; (ii) short supply of skilled workers; (iii) an infrastructure financing deficit, and (iv) the need to improve water resource conservation and management. How these issues are solved will determine the sector outcomes in the medium-to-long run.

7. The institutional and governance systems to manage the urban areas in the Lao PDR are nascent. Various policies and legislations were drafted to improve the urban governance and planning framework, such as the Sam Sang Policy, Local Administration Law, Water Supply Law 1999, and the draft urban sanitation strategy. These aim to sharpen the government’s approach to decentralization and identification of municipal areas as development or management units. However, institutionalizing these legislative changes—forming institutions, staffing them, and stabilizing their operations—will take time before they start responding to urbanization challenges. These delays are expected to hamper infrastructure creation and service delivery, at least in the immediate term. Significant capacity development efforts and the establishment of regulatory mechanisms are required for municipal entities to be set up and for urban areas to be managed more effectively.

8. The regulatory and institutional framework for the urban sanitation subsector needs to be given more focus. Without a clear mandate and with a shortage of skilled labor, the subsector lacks provincial and urban institutional anchors. Nationally, the Department of Water Supply (DWS) was established in 2015 to develop the urban water and sanitation systems in the country. The DWS would need to be supported to bring clarity to the regulatory and institutional framework for urban sanitation in the Lao PDR.

9. The country needs substantial investments in water, sanitation, disaster risk mitigation, transportation, and other areas to improve its urban environment and make cities responsive to increasing economic activities. While it is expected that budgetary allocations would not be sufficient to meet the financing requirements, the key challenge is the country’s over-reliance on funding from multilateral and bilateral development partners, and lack of alternative sources.

10. Also, the regulatory environment that would encourage private sector participation is at a nascent stage. Weak procurement policies and regulations further inhibit the potential of private investors funding a share of the infrastructure finance deficit. Lack of skills and institutional experience in managing transactions and structuring projects based on public–private partnerships further restricts private sector participation. Other issues include reliability and security of raw water sources, environmental pollution, and resultant degradation of raw water quality.

B. Government’s Sector Strategy

11. The government, in its 8th National Socio-Economic Development Plan, 2016–2020, lays down a development vision until 2030. It aims for the Lao PDR to graduate from being a least developed country. In addition, the National Strategy on Socio-Economic Development 2025 outlines a 10-year macro-level strategy for achieving the goals set out in Vision 2030. One strong priority of the government under the Plan is the improvement of urban infrastructure and environment to facilitate further economic growth. It sets a target of 90% coverage of piped water supply and 80% coverage of safe sanitation in urban areas. Other development interventions identified in the plan include:
(i) integrated wastewater treatment systems in Vientiane, Louangphabang, and other secondary towns and provincial capitals;
(ii) improved efficiency of water supply services in urban areas and emphasis on private sector participation;
(iii) better practices to be adopted in integrated water resource management and the development of seven priority river basins—Nam Ou, Nam Ngum, Sebangfai, Sebanghieng, Nam Ngiep, Nam Theun-Nam Kading and Xekong;
(iv) development of urban economic zones and economic corridors; and
(v) development of one corridor town as green and clean city pilot.

12. In the follow-up to the national macro-level strategy documents, various line ministries developed sector-specific strategies to further the implementation of the interventions identified by the government. Some of the important subsector strategies and their prioritized areas of intervention are as follows:

(i) **Draft National Policy on Water Supply Sanitation and Hygiene, 2016–2030.** This is proposed to act as an overarching policy framework for the water supply and sanitation subsectors in the country. It is aligned with Sustainable Development Goal 6, which is to ensure availability and sustainable management of water and sanitation for all by 2030. The policy focuses on an institutional and regulatory framework for ensuring water sanitation as a basic right of citizens and universal coverage. The draft policy identifies steps toward improving the institutional framework, building capacities of existing institutions, and designing models for infrastructure service provision based on cost recovery principles.

(ii) **Strategy of Urban Water Supply and Sanitation Sector, 2013–2030.** Approved by the Ministry of Public Works and Transport in 2013, the strategy lays out an action plan for achieving 90% coverage of urban population in piped water supply and 80% coverage in safe sanitation. The interventions identified include: strengthening the institutional framework at the central and provincial levels, focusing on expansion of water supply services to peri-urban areas, developing infrastructure in small and emerging towns, strengthening the regulatory framework for water and sanitation sectors, improving the enabling environment for public–private partnerships in water and sanitation provision, mainstreaming corporate planning in all provincial water utilities, developing a centralized wastewater management system in Vientiane and four secondary towns, and developing small-scale wastewater management projects.

(iii) **Water Supply Investment Plan, 2005–2020.** This plan emphasizes equitable development of urban areas with a focus on poorer districts. The investment estimated in the plan is $265.00 million, including $103.00 million for small towns, $129.00 million to be invested in Vientiane, $20.70 million in secondary towns, $14.60 million in provincial capitals, and $102.50 million in small-town water supply schemes. The priority is on 18 small towns—12 in the northern region and 6 in the central region.

(iv) **Urban Sanitation Strategy.** Still in a draft stage, the strategy outlines a medium-term road map for rationalizing the institutional and regulatory framework, setting up an urban sanitation performance management and regulatory regime, and identifying priority sanitation infrastructure in key urban areas.
(v) **Urban Development Strategy 2016–2030.** The draft strategy considers cities as economic centers and aims to develop them so as to support and sustain the economic growth in the country. Under this strategy, the government aims to prepare development plans for key urban centers to ensure coordinated planning. The strategy emphasizes the need to improve the capacity of urban development institutions and staff to plan and manage cities. It estimates an investment requirement of $518.00 million between 2016 and 2020 to reduce the urban infrastructure backlog.

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

13. The Asian Development Bank (ADB) has consistently aligned its urban development goals for the Lao PDR with the national development priorities of the government. It has supported the creation of urban development infrastructure through financing support and technical assistance for institutional capacity building since 1993, usually covering central and provincial authorities. In doing so, ADB adopted a project-based lending approach to infrastructure development assistance with a geographic focus on poorer provinces, and both smaller and larger cities. This led to significant capacity development of institutions involved in provincial water supply and sanitation. These 42 interventions also contributed significantly to the Lao PDR’s achieving its millennium development goal targets for water and sanitation.

14. **Investments in priority urban infrastructure.** ADB supported the development of various water supply schemes in the Lao PDR to augment piped water supply coverage and improve access to sanitation services through the Northern and Central Regions Water Supply and Sanitation Sector Project, Small Towns Water Supply and Sanitation Sector Project, Water Supply and Sanitation Sector Project, and Pakse Urban Environmental Improvement Project, among others. ADB will continue to provide technical and infrastructure investment support for the development of water supply systems in small Lao PDR towns. In addition, ADB will continue to provide capacity development support to stakeholders to ensure that the investment programs are efficiently implemented and sustained.

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3 ADB, Northern and Central Regions Water Supply and Sanitation Sector Project; ADB, Small Towns Water Supply and Sanitation Sector Project; ADB, Water Supply and Sanitation Sector Project; and ADB, Pakse Urban Environmental Sector Project.
### D. Problem Tree for the Water and Other Urban Infrastructure and Services Sector (Water and Sanitation Subsectors)

<table>
<thead>
<tr>
<th>OVERALL IMPACT</th>
<th>Insufficient urban infrastructure and poor urban environment limiting cities’ competitiveness and causing a drag on economic growth</th>
</tr>
</thead>
</table>
| SECTOR IMPACT  | **Delayed approvals of draft policies and regulations**  
|                | **Lack of resource allocation to the implementation of policy recommendation** |
|                | **Inadequate focus on capacity development in areas of PPPs, urban planning, and regulating infrastructure** |
|                | **Lack of financial intermediary to provide short- or medium-term loans**  
|                | **Lack of focus on increasing private sector participation** |
|                | **Lack of monitoring and regulatory oversight of waste disposal into water resources**  
|                | **Lack of coordinated allocation of water resources rights** |

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<tr>
<th>CORE SECTOR PROBLEM</th>
<th>Lack of clarity of institutional role, short supply of skilled workers, and overdependence on external funding limiting the ability of the institutions to manage urban development challenges</th>
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</table>
| CAUSES              | **Delayed approvals of draft policies and regulations**  
|                     | **Lack of resource allocation to the implementation of policy recommendation** |
|                     | **Inadequate focus on capacity development in areas of PPPs, urban planning, and regulating infrastructure** |
|                     | **Lack of financial intermediary to provide short- or medium-term loans**  
|                     | **Lack of focus on increasing private sector participation** |
|                     | **Lack of monitoring and regulatory oversight of waste disposal into water resources**  
|                     | **Lack of coordinated allocation of water resources rights** |

| DEFICIENT SECTOR OUTPUT | **Absence of institution to anchor urban sanitation**  
|                         | **Suboptimal municipal administration**  
|                         | **Lack of regulatory oversight and sector coordination** |
|                         | **Poorly regulated sanitation and water resource consumption/ pollution**  
|                         | **Improper financial reporting, accounting and auditing practices**  
|                         | **Development plans not implemented**  
|                         | **Lack of reliable information on water, sanitation and other sector** |
|                         | **Overdependence on government budgetary allocations and donor funding**  
|                         | **PNPs unable to leverage their cash flows for minor or major capacity expansion**  
|                         | **Water supply tariff regime not implemented** |
|                         | **Increasing conflicts over water resources rights**  
|                         | **Rapidly degrading quality of water resources rendering treatment infrastructure redundant**  
|                         | **Inability of PNPs to increase coverage because reliable raw-water sources are lacking** |

| PROBLEM               | **Still evolving institutional and regulatory framework**  
|                       | **Short supply of skilled human resources**  
|                       | **Urban infrastructure financing deficit** |
|                       | **Need for water resource conservation** |

PNP = provincial nam papa (provincial water utility), PPP = public-private partnership.