

## SECTOR ASSESSMENT (SUMMARY): WATER SUPPLY AND OTHER MUNICIPAL INFRASTRUCTURE AND SERVICES<sup>1</sup>

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

1. The Lao People's Democratic Republic (Lao PDR) remains essentially a rural country based on population distribution. In 2005, it had a population of 5.6 million, but its high population growth rate of 2.1% means that its population is expected to increase to 7.3 million by 2020. About 73% of the population lives in nearly 12,000 small rural villages, with the remaining 27% in urban centers or towns. About 42% of the urban population lives in 140 small towns, with 2,000–20,000 residents.<sup>2</sup> The urban areas have not experienced the problems associated with urbanization in other parts of Asia. They are relatively small, with low population density. However, the situation is changing. In 1998, agriculture accounted for over 53% of national gross domestic product. By 2008, it had declined to second place at 35%, behind the services sector at 37%. During the same period, industry increased from 22% to 28%,<sup>3</sup> including the reemergence of agricultural processing, such as coffee and tea.

2. Urban areas are the focal points for linkages between rural areas and wider economic markets. The growing services sector and the processing of agricultural products take place mostly in urban areas. Although urban areas account for about 27% of the population, household consumption and expenditure amount to 50% of the national total.<sup>4</sup> Provincial and district towns have well-established links with the rural areas surrounding them. These are forged through close economic and social interactions. Towns also play a key role in providing access to national and regional markets. Improvement of urban areas is key to balanced development.

3. With urbanization comes the increasing need for sustainable infrastructure investments; better planning and management capacity of sector departments, urban authorities, and water utilities; and improved understanding of the environmental impacts brought about by rapid economic growth. The emphasis on green and clean technologies is increasing in national and subregional forums and among government stakeholders. National and subnational urban planning and management (including environment and gender issues) needs to be strengthened to safeguard against disorganized growth, inefficient land use, damage and loss of natural resources, and inequitable access to urban services.

4. The core problem facing urban areas arises from inadequate water supply, sanitation, and other municipal infrastructure and services. It relates directly to the lack of funds for investments in urban infrastructure and operations, weak sector planning and implementation capacity, and an inadequate institutional and legal framework. Missing links in the road network, poor maintenance of water supply infrastructure, flooding and clogged drains, and disposal of untreated waste constrain the productive capacity of urban areas, making them less competitive and livable. Inadequate urban infrastructure, poor management of urban services, and a weak regulatory environment also discourage private sector investment in urban areas. Infrastructure investments need to be targeted and based on clear strategies for urban development, including water supply and sanitation. Activities to strengthen sector planning, implementation capacity, and the institutional framework are also needed, such as (i) a clear hierarchy and division of responsibilities for urban management; (ii) capacity strengthening of urban development administration authorities (UDAAs) within the country's decentralization framework; (iii) more flexible and appropriate land use plans to guide development; (iv) improved data collection and management specifically for urban areas; (v) greater

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<sup>1</sup> This summary is based on a sector summary prepared for Asian Development Bank. 2011. *Country Partnership Strategy: Lao People's Democratic Republic, 2012–2016*. Manila. <http://www.adb.org/sites/default/files/cps-lao-2012-2016-ssa-03.pdf>

<sup>2</sup> Only 10 urban centers have a population of more than 20,000.

<sup>3</sup> World Bank. 2009. *Lao PDR at a Glance*. Vientiane.

<sup>4</sup> National Statistical Center. 2008. *Lao Expenditure and Consumption Survey 2007/8*. Vientiane.

public awareness of urban, water, and sanitation-related health and environmental benefits; and (vi) greater community responsibility for maintaining local green space and a clean environment.

## 2. Government's Sector Strategy

5. **Socioeconomic development plan.** The National Socio-Economic Development Plan (NSED) provides the framework and agenda for national development and attainment of national goals and objectives. It also establishes national development priorities and budgetary allocations over the coming years. The 7th NSED, 2011–2015 was finalized in December 2010. While it includes many targets and policies similar to previous versions, it presents some departures from the established formula for poverty reduction through the four traditional areas of agriculture, forestry, education, and health. As well as setting broad economic and social targets, the 7th NSED includes provisions for improving public administration, enhancing regional integration, supporting the sustainable use of natural resources, and providing infrastructure.

6. **Urban sector strategy.** The Department of Housing and Urban Planning, Ministry of Public Works and Transport (MPWT) completed a draft National Urban Sector Strategy, including a wastewater strategy and investment plan. It outlines objectives, policies, and programs in the urban sector and corresponds to MPWT 5-year plans. It is a multisector urban agenda intended to be a reference document for planners and decision makers in government and other agencies. The draft strategy focuses on proposals for technical improvements in urban management and includes suggestions for establishing cross-sector committees for national and provincial urban development and management. The objectives of the strategy are to (i) develop all urban areas from the capital city to village clusters to reduce the development gap between urban and rural areas step by step; (ii) strengthen the capacity of urban management authorities; (iii) create favorable conditions for civil society and the private sector to participate actively in urban planning, management, and sustainable development; and (iv) preserve and expand cultural and national heritage resources through urban development and environmental protection. The strategy prioritizes Pakse, along with three other secondary towns (Luang Prabang, Thakhek, and Savannakhet) for urban investment based on its significant growth and regional location.

7. **Water supply.** The Water Supply Law, 2010 aims to consolidate water supply legislation and strengthen the legal basis for the provision of sanitation services. The 1999 sector policy statement and the 2005 Enterprise Law provide the legal and regulatory framework for water supply utilities. The 1999 policy statement established the institutional framework and policy for the urban water supply. A sector investment plan, attached to the 1999 policy statement, listed all urban center water supply systems in order of priority for rehabilitation, expansion, and/or development. The 1999 plan was updated in 2004 to reflect the government's growing emphasis on equitable development by improving small towns, particularly in the poorest districts. The plan represents a balanced, sequenced approach to water supply development in the country.

8. **Sanitation.** The government aims to increase septic tank usage to 70% of all households by 2020. This will require (i) stronger sanitation regulations and enforcement; (ii) additional capital investment in septic systems, combined drainage systems, and sludge tankers; (iii) upgrading pit latrines to septic systems in medium- and high-density areas; and (iv) improving and expanding combined drainage systems in medium- and high-density areas to receive settled effluent from septic tanks. Sewage systems for the central areas of larger towns will need to be constructed to enable dry-weather interceptors at outfalls of combined drainage systems to convey wastewater to downstream discharge points or to wastewater treatment plants. Understanding natural drainage patterns will be important.

### 3. ADB Sector Experience and Assistance Program

9. The Asian Development Bank (ADB) has been contributing to urban development and water supply and sanitation in the Lao PDR since 1973 when it commissioned a water supply project in Vientiane. ADB commenced its first multisector urban project in the country in 1995.<sup>5</sup> ADB has not been involved in support for rural water supply and sanitation. ADB projects have supported water supply, sanitation, flood protection and drainage, solid waste management, and roads and transport in Vientiane, secondary towns, and provincial capitals. ADB has also provided support for the establishment and capacity building of the UDAAAs, and capacity development of decentralized provincial *nam papas* (water utilities) through technical assistance and a number of projects. ADB helped develop the legal framework and strategies through support to the preparation of the draft National Urban Sector Strategy.

10. Other development partners in the sector include the Norwegian Agency for Development Cooperation (NORAD), the OPEC (Organization of the Petroleum Exporting Countries) Fund for International Development, Agence Française de Développement, the United Nations Human Settlements Programme, Japan International Cooperation Agency (JICA), Korea International Cooperation Agency, and the Neighboring Countries Economic Development Cooperation Agency of Thailand. JICA, NORAD, and the United Nations Development Programme have provided assistance in solid waste management. The Group for Research and Technological Exchange has supported the development of private water supply concessions. ADB, JICA, NORAD, and other development partners are supporting strengthening of the water supply subsector. JICA, the United Nations Development Programme, and other partners are supporting activities in local administration and public administration. The World Bank, the Water and Sanitation Program, the United Nations Children's Fund, the World Health Organization, Swedish International Development Cooperation Agency, SNV Netherlands Development Organisation, and the United Nations Human Settlements Programme are key partners in rural water supply and sanitation.

11. Major lessons from ADB-financed projects in urban development and water include (i) civic participation positively affects urban governance; (ii) participatory and demand-driven development activities enhance the sense of local ownership; (iii) capacity building requires proper planning and up-front implementation as it is a long-term effort; (iv) institutional and policy reform should be based on realistic assessment of timing, resource requirements, and political will; and (v) weak performance in project financial cost recovery threatens sustainability, while project social and economic benefits are exceptionally high.

12. The government is working to clarify the roles of provincial governments, particularly the provincial departments of public works and transport, UDAAAs, district governments, and proposed municipalities. The concept of municipality is to be tested in selected towns. The Ministry of Home Affairs is drafting a municipality decree for approval in 2012. This is likely to affect institutional outcomes and the delivery of quality urban service delivery. For water supply and sanitation, progress includes improved regulation, corporatization of provincial water utilities, and annual water tariff adjustments. The legal framework is also progressing, with the National Assembly approving the Water Supply Law in 2009 and the sector road map and action plan in 2008.

13. Projects should facilitate private sector participation and have a strong focus on capacity building of public and private operators, and subnational governments. The 2010 ADB sector study on private sector readiness in urban water supply in the Lao PDR indicated that while the urban water supply subsector is not fully geared for implementing public-private partnership

<sup>5</sup> ADB. 1995. *Report and Recommendation of the President to the Board of Directors: Proposed Loan and Technical Assistance Grant to the Lao People's Democratic Republic for the Vientiane Integrated Urban Development Project*. Manila.

projects on a large scale, it has the basic framework required for initiating the process of engaging with the private sector. The government needs to address certain areas that would create an enabling and conducive environment for catalyzing private investment in the sector.

14. In addition, projects need to ensure that women are involved as key stakeholders in planning, capacity development, and implementation activities related to urban development and water supply. In particular, women's role is significant in community and household sanitation development, as well as operation and maintenance. Corresponding policy and strategy documents, including public awareness and behavior change efforts, need to be socially inclusive and gender-sensitive. Furthermore, women's role in water utilities and UDAs are significant, especially in key areas such as financial management and administration. ADB projects will continue to incorporate steps to enhance gender equity.

15. The ADB urban development and water sector strategy for the Lao PDR will aim to support the country's environmentally sustainable economic growth and integration into the broader Greater Mekong Subregion (GMS). This framework is consistent with and supportive of ADB's Strategy 2020.<sup>6</sup> Of the five core areas of ADB operations identified in Strategy 2020, infrastructure, environment, and regional cooperation and integration are the three areas directly relevant to addressing urban and water challenges in the Lao PDR.

16. The strategic thrust of ADB urban and water operations will follow the government's sector strategies; and ADB's water operational plan, 2011–2020<sup>7</sup> and urban operational plan, 2012–2020. ADB's regional urban projects will follow the GMS strategy to transform transport corridors into economic corridors, as identified in the ADB Regional Cooperation Strategy and Program for the GMS, 2009–2011. It emphasizes targeted, large infrastructure investments in urban centers and along economic corridors. This will help build the attractiveness of small and medium-sized towns to reduce migration to larger towns and cities. It will also help increase the competitiveness of major urban centers within the GMS. ADB will continue supporting urban water supply to stimulate a further improvement of the legal and regulatory framework, business water operations, and twinning opportunities of water utilities with expert utilities in Cambodia and Thailand. ADB's involvement in rural water supply and sanitation will be through selected health projects.<sup>8</sup>

17. ADB will adopt crosscutting themes to (i) address the rapid growth of the urban population, (ii) remove constraints to economic growth in urban areas, (iii) increase local development financing, (iv) strengthen spatial planning and land management, (v) improve enforcement and city management, (vi) support more green and clean technology, (vii) expand private sector participation in urban infrastructure provision, and (viii) adapt to climate change. Support will be given to solving the causes of the problems that contribute to the deficiencies in the sector—the poorly planned, managed, and underserved urban centers.

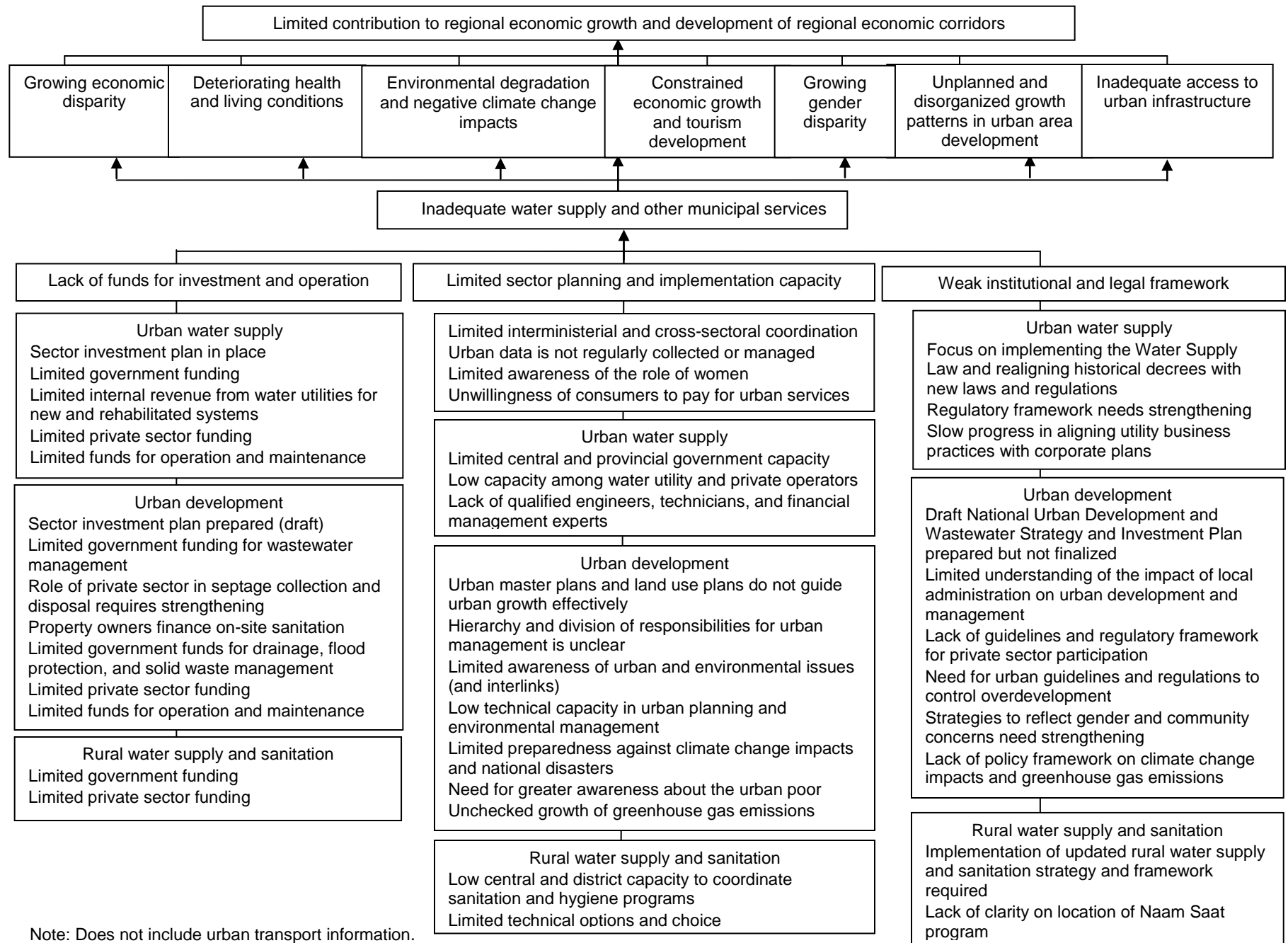
18. The proposed ADB strategy for urban development, water supply, and sanitation includes providing support to the following areas: (i) urban development—strengthening of urban, regional, and environmental planning management; planning and development of model towns and cities in strategic locations and along transport corridors; and infrastructure investments in priority urban areas with high tourism potential; and (ii) water supply and sanitation—provision of piped water supply and latrines for urban residents; expansion of improved sanitation in urban areas, including exploration of urban wastewater management and financing; and strengthening of water supply sector planning and regulation. The potential of increasing private sector participation will be considered in both areas, especially in (i) water supply and wastewater treatment; (ii) septage collection and disposal; and (iii) solid waste collection, segregation, recycling, and reuse.

<sup>6</sup> ADB. 2008. *Strategy 2020: The Long-Term Strategic Framework of the Asian Development Bank, 2008–2020*. Manila.

<sup>7</sup> ADB. 2011. *Water Operational Plan, 2011–2020*. Manila.

<sup>8</sup> Developing Model Healthy Villages in Northern Lao PDR. <http://www2.adb.org/Documents/GAR/LAO/42143-LAO-GAR.pdf>.

## Problem Tree for Water Supply and other Municipal Infrastructure and Services



Note: Does not include urban transport information.  
Source: Asian Development Bank.

### Sector Results Framework (Water Supply and Other Municipal Infrastructure and Services, 2012–2016)

Country Sector Outcomes		Country Sector Outputs		ADB Sector Operations	
Sector Outcomes with ADB Contributions	Indicators with Targets and Baselines	Sector Outputs with ADB Contribution	Indicators with Incremental Targets	Planned and Ongoing ADB Interventions	Main Outputs Expected from ADB Interventions
Transport corridors become economic corridors	Trade and investments (national and regional) in each corridor town increased by 10%, from 2012 to 2022 (baseline: 2009) GMS corridors become economic corridors by 2022 (GMS Strategic Framework, 2012–2022) GMS corridor towns become flood-free (GMS Master Plan 2011)	Infrastructure investments and capacity building in corridor towns Urban infrastructure and municipal services developed and operated efficiently in main urban areas Enhanced urban and development planning coordination across provinces and districts and with concerned government agencies Increased preparedness for potential climate change impacts in urban areas	By 2020, GMS corridor towns will have improved environmental and economic infrastructure (baseline 2009): 80% of residents have access to water supply and wastewater treatment; 80% of solid waste is collected; flood incidence is reduced by 100% Urban sanitation and wastewater management systems introduced and operational in 3 urban areas by 2020 (baseline: 2009) Integrated urban development projects developed and operational by 2020 (baseline: 2009) Integrated plans and procedures in place in Vientiane, secondary towns, and provincial capitals by 2020 (baseline: 2009) Climate change policies and plans in place for major urban areas by 2020 (baseline: 2009) Piped water supply systems in small towns increase from 51 (2009) to at least 70 small towns by 2014 At least 30% of scholarships and training opportunities are for qualified women by 2014 At least 10 water utility corporate plans incorporate specific gender activities by 2014 Urban strategies and guidelines incorporate gender concerns	<b>Planned key activity areas:</b> Urban WSS Urban development <b>Pipeline projects with estimated amounts:</b> GMS Corridor Town Development (\$40.7 million, 2012) Pakse Urban Environmental Improvement (\$27.5 million, 2012) WSS Sector Project (PPTA: \$800,000, 2012; project: \$30 million, 2013) Urban Environment Improvement (PPTA: \$750,000, 2013; project: \$30 million, TBD) Capacity Development for Urban Planning and Management Project (CDTA: \$2 million, 2014) <b>Ongoing projects with approved amounts:</b> Strengthening Urban Water Supply Regulation (CDTA: \$500,000, 2011) Small Towns WSS Sector Project (\$23.5 million, 2009) Northern and Central Regions Water Supply and Sanitation Sector Project (\$18 million, 2005; and supplementary \$6.6 million, 2009) PPTA for GMS Corridor Towns Development Project I (\$700,000, 2010) Developing Model Healthy Villages in Northern Lao PDR (\$3 million, 2009)	<b>Planned projects:</b> Increased competitiveness of at least 3 towns in Lao PDR and in the GMS City urban development strategy developed in at least 3 towns, including Pakse Improved governance in urban development administration authorities Increased gender equity in urban development New systems in at least 10 small towns <b>Ongoing projects:</b> Regional water operator partnership agreements (NPV and PPWSA) Strengthened sector and regulatory capacity of key agencies Improved governance in water supply utilities (at least 10 provincial utilities corporatized) Increased gender equity in WSS Rehabilitated piped water supply systems in at least 3 small towns New systems in at least 10 small towns
Increased access to safe WSS for women and men	Lao PDR MDG and NSEDP-7 targets by 2015: 80% of the population has access to clean water supply (74% in 2007); and 60% has access to pour-flush latrines (49% in 2007) Urban water supply sector goal by 2020: 80% of urban residents have access to piped water supply (67% in 2005)	Expanded access to safe piped water supply and increased household coverage of pour-flush latrines in small towns  Enhanced gender equity in WSS and urban development			

ADB = Asian Development Bank, CDTA = capacity development technical assistance, GMS = Greater Mekong Subregion, Lao PDR = Lao People's Democratic Republic, MDG = Millennium Development Goal, NPV = Nam Papa Vientiane, NSEDP-7 = Seventh National Socio-Economic Development Plan, PPTA = project preparatory technical assistance, PPWSA = Phnom Penh Water Supply Authority, TBD = to be determined, WSS = water supply and sanitation.

Note: Does not include urban transport information.

Sources: Asian Development Bank; Government of Lao PDR's National Socio-Economic Development Plan (NSEDP) 2011–2015; Government of the Lao PDR and United Nations Development Programme's Millennium Development Goals, Progress Report Lao PDR 2008.