

## SECTOR ASSESSMENT (SUMMARY): TRANSPORT (ROAD TRANSPORT [NONURBAN])<sup>1</sup>

### Sector Road Map

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

1. **Population, poverty, and economy in rural areas.** Sri Lanka's population is clustered along the coasts and in interior market towns that dominate the rural landscape. About 82% of Sri Lanka's population (21.0 million in 2015) lives in rural areas.<sup>2</sup> Strong economic growth since 2003 that averaged about 6% annually has reduced the rural poverty rate from 24.7% in 2002 to 7.6% in 2012–2013.<sup>3</sup> In spite of the rapid progress in poverty reduction, Sri Lanka still faces several challenges to fully eradicate poverty. Poverty disparities remain across provinces and districts, particularly in the districts of Eastern, Northern, and Uva provinces, where headcount poverty rates are close to, or exceed, 20%. Developing the rural economy is essential to further reduce poverty and ensure shared prosperity in rural areas. However, inadequate transport infrastructure—particularly, poor provincial and local authority roads—hinders access to market and business and knowledge-related opportunities and benefits.

2. **Road agencies and road network.** The country's road network is dense and well laid out, providing basic minimum access to population and economic centers. The network is among the densest in Asia, and the ratio of road kilometers (km) to population exceeds related indicators in neighboring countries. The central government is responsible for transport policy and interprovincial road transport infrastructure on national roads, which include about 161 km of expressways and 12,208 km of class A and B roads. The central government through the Road Development Authority (RDA) manages these national roads. The provincial road network, comprising 19,038 km of class C and class D roads, is managed by the provincial councils. The local authority roads (class E), comprising 85,860 km, are managed by local governments. In addition, about 20,000 km of roads are managed by other government agencies (e.g., the forest and irrigation departments).

3. **Travel demand and modal shares.** While substantial progress has been made in developing the road network, demand has also increased significantly. Since 2014, the number of vehicles in Sri Lanka has increased at an average annual rate of more than 10%. Passenger traffic is estimated at 80 billion passenger-km, with road transport accounting for 93%. Private vehicles account for 26% of passenger traffic, buses for 55%,<sup>4</sup> and para-transit services for 10%.<sup>5</sup> Public road transportation is vital for villagers in rural areas who lack private vehicles and access to social and economic facilities. However, rural roads that have yet to be upgraded to an all-weather standard may not accommodate public transportation services. Road transport accounts for 97% of freight in terms of ton-km.

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<sup>1</sup> This summary is based on three documents (available on request): (i) Road Development Authority. 2007. *National Road Master Plan (2007–2017)*. Colombo; (ii) Government of Sri Lanka, Ministry of National Policies and Economic Affairs, Department of National Planning. 2017. *Public Investment Programme, 2017–2020*. Colombo; (iii) ADB. 2017. *Country Partnership Strategy: Sri Lanka 2018–2022*. Manila. Supplementary information was provided by the Road Development Authority.

<sup>2</sup> World Bank. 2016. *World Development Indicators*. Washington, DC.

<sup>3</sup> Department of Census and Statistics, 2015. *Household Income and Expenditure Survey 2012/13*. [http://www.statistics.gov.lk/HIES/HIES2012\\_13FinalReport.pdf](http://www.statistics.gov.lk/HIES/HIES2012_13FinalReport.pdf)

<sup>4</sup> Private operators of bus services have the dominant share at two-thirds of bus traffic, while the state-run Sri Lanka Transport Board (SLTB) carries the residual one-third.

<sup>5</sup> Para-transit is predominantly made up of three-wheeler taxis, but also includes metered taxis, school transport services, and office transport services.

4. **Road conditions.** Notable progress has been made since 2005 in improving the national road network. The proportion of national roads in good or fair condition rose from 48% in 2005 to 70% in 2015, and those in poor condition declined from 52% to 30% during the same period. However, improvement of provincial and rural roads is relatively slow. For example, in the Eastern, North Central, and Northern provinces, only 25% of provincial roads are rated as being in good or excellent condition. The government has rehabilitated 26% (4,900 km) of provincial roads and 37% (39,000 km) of rural roads. Some rural access roads that were previously rehabilitated have deteriorated because of (i) poor pavement and road design, (ii) insufficient capacity of contractors in the absence of proper supervision, and (iii) lack of appropriate maintenance activities. The RDA estimates that about 80% of the rural access road network requires rehabilitation.

5. **Road asset management.** To manage the national road network, the RDA has deployed a comprehensive road asset management system in its planning division. The planning division (i) operates a commercial off-the-shelf application, the Highway Information Management System, to manage the road inventory and condition database; (ii) uses the Highway Development and Management model to estimate budget requirements and to program works; and (iii) runs a vehicle equipped with an automatic data collection system to inspect road conditions. The RDA is currently enhancing the system to improve internal management efficiency with assistance from the World Bank. Expansion of the road asset management system to provincial and local authority roads is supported under the first Integrated Road Investment Program.<sup>6</sup>

6. A road maintenance trust fund was established in 2005 to provide a sustainable source of funding for routine and periodic maintenance. Originally established under the Ministry of Finance and Planning through a deed of trust, the fund was reconstituted in 2010 directly under the Ministry of Ports and Highways. A technical secretariat was established that works closely with the RDA to set priorities and make allocations from the fund. The fund covered about 2,000 km of periodic maintenance and 8,000 km of routine maintenance of the core national network per year; it was envisaged that it would be expanded to cover roads managed by provincial and local road agencies.<sup>7</sup>

7. With assistance from the Asian Development Bank (ADB), the government has piloted various approaches to performance-based maintenance (PBM), with mixed results. Since 2009, a consistent approach has been used in most ADB-funded road projects that combines rehabilitation or improvement works plus 3 to 5 years of PBM into a single contract. Bidding documents and contract administration have been gradually improved to procure and implement PBM contracts. Early observations include the following: (i) bidding documents and contracts need to be carefully structured to ensure the contractor will complete the maintenance period; (ii) the performance-based payment mechanism requires capacity development of both road agencies and contractors; (iii) the maintenance contracts help the road agencies secure funds for long-term maintenance; and (iv) the output-based and performance-based road contract model may need to be further developed through lessons from project implementation before being more widely disseminated.

8. **Road budget and investment.** The road budget allocated to national road development

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<sup>6</sup> Asian Development Bank. 2014. *Report and Recommendation of the President to the Board of Directors: Proposed Multitranche Financing Facility to the Democratic Socialist Republic of Sri Lanka for the Integrated Road Investment Program*. Manila.

<sup>7</sup> The road maintenance trust fund is not currently functioning as originally intended because the government is reviewing its roles and responsibilities in terms of the revenue-based fiscal consolidation under the International Monetary Fund program (International Monetary Fund. 2016. *Staff Report for the 2016 Article IV Consultation and Request for a Three-Year Extended Arrangement under the Extended Fund Facility*. Washington, DC).

is about SLRs120 billion in 2016,<sup>8</sup> which is a six-fold increase in nominal terms compared to the 2005 level of SLRs19 billion. According to the Public Investment Programme, 2017–2020 (footnote 1), the share of national road development in the government capital expenditure budget will increase from 16.4% in 2017 to 23.2% in 2020.<sup>9</sup> The provincial and local authority road budget under the Ministry of Provincial Councils and Local Government may not be projected to increase as much as the national road budget under the Public Investment Programme. Ministry investment in rural access roads and other basic infrastructure development (e.g., water supply) will increase from SLRs57 billion in 2017 to SLRs90 billion in 2020; the share will remain similar— 8.1% in 2017 and 8.5% in 2020.

9. The maintenance budget was SLRs1.8 billion in 2005 and increased to SLRs4.3 billion in 2015 following the establishment of the road maintenance trust fund. The fund allocation for national road maintenance has not always been sufficient relative to the estimated requirement in the National Road Master Plan (2007–2017).<sup>10</sup> However, as stated earlier, the condition of national roads has broadly improved, together with the enhancement of the technical maintenance capacity of the RDA and the introduction of the road asset management system. Rural road sustainability requires further improvement, however.

10. **Challenges and opportunities for rural road development.** Progress on provincial and local authority roads has been relatively slow, and many rural access roads remain in poor condition. The poor transport infrastructure has hindered the spread of economic activities and access to basic health and education resources. Continued expansion of transport infrastructure to increase access to markets and economic opportunities and to health and education services is required to support inclusive growth and poverty reduction.

11. Efficient implementation of rural access roads is hampered by (i) competition with other sectors for budget allocations; (ii) limited availability of suitable raw materials, which increases construction costs; (iii) limited capacity of provincial- and local-level road agencies; (iv) ad hoc provincial- and local-level project road selection that lacks clear criteria; and (v) insufficient community involvement in rural road development.

12. Preserving the value of rehabilitated infrastructure assets is also another challenge. Several factors need to be addressed to secure sustainability of rural road assets, including (i) inadequate rural road design standards and construction specifications, (ii) poor contractor capacity at both provincial and local levels, (iii) limited technical maintenance and road asset management capacity of provincial- and local-level road agencies, (iv) lack of capital investment coupled with sound maintenance regimes, and (v) an insufficient maintenance budget allocation for rural roads.

## 2. Government's Sector Strategy

13. A two-tier sector strategy has been adopted by the government to provide nationwide connectivity: (i) establishing a trunk road network covering a number of expressways and a well-connected national road network; and (ii) completing a rural road network, to connect the rural population to trunk roads that are linked to socioeconomic activity centers.

<sup>8</sup> National roads include provincial and local authority roads implemented by the Road Development Authority.

<sup>9</sup> The Public Investment Programme projects that road investment will be increased to SLRs247 billion in 2020.

<sup>10</sup> Road Development Authority, Government of the Democratic Socialist Republic of Sri Lanka. 2007. *National Road Master Plan, 2007–2017*. [http://www.rda.gov.lk/supported/noticeboard/publications/nrmp\\_executiveSummary.pdf](http://www.rda.gov.lk/supported/noticeboard/publications/nrmp_executiveSummary.pdf)

14. The Public Investment Programme, 2017–2020 provides road sector policy directions to facilitate economic growth by (i) creating an efficient road network; (ii) connecting large and emerging cities, townships, economic centers, and rural hubs; and (iii) ensuring safety and equity. The medium-term targets are (i) construction of about 200 km of expressways (including an elevated highway in Colombo); (ii) rehabilitation of 2,400 km of national highways; (iii) rehabilitation and improvement of the rural, provincial, and national road network as required to improve connectivity to 2,500 villages; and (iv) strengthening of road-related institutions.<sup>11</sup>

15. The government is supporting sustainable and inclusive development as a means of securing general prosperity. The government's development policy statements identified five development goals, one of which is to develop rural economies. The government plans to establish 2,500 rural development centers with upgraded rural access as rural economic market hubs. In line with the government's national strategy, a new rural road connectivity program was launched in 2014 to enhance the rural road network. The rural road connectivity program is a high-priority investment area. ADB has supported the program through the first Integrated Road Investment Program since 2014 to address the technical, financial, and institutional challenges for the rural road development (footnote 6). A portfolio review of ADB-funded road projects, including the Integrated Road Investment Program (footnote 6), confirmed that the implementation capacity of the RDA is adequate.

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

16. ADB assistance in road transport has refocused on improving nationwide connectivity. In the country partnership strategy 2018–2022 for Sri Lanka, ADB aims to address major constraints to the nation's development by strengthening the drivers of economic growth and improving the quality of growth.<sup>12</sup> ADB's assistance in the transport sector will contribute to the sector outcome of better connectivity through more efficient, sustainable, and integrated transport infrastructure. ADB places a high value on the improvement of the road network accessibility. The Integrated Road Investment Program was configured in 2014 as an \$800-million multitranche financing facility for upgrading the rural road network in six provinces.

17. ADB will also address the requirements and challenges of improving the existing road network and prioritizing road links with forecasts of viable traffic and links of critical importance in gaining economic efficiency and equity. Institutional capacity improvement for road asset sustainability requires further strengthening, together with investment support. Climate change adaptation should be appropriately considered in the design, implementation, and maintenance stages of road projects. ADB will also explore ways to support the government's efforts to develop and maintain the road network through private sector involvement, including via public–private partnerships. ADB will pursue an environmentally sustainable transport strategy as it seeks to achieve intermodal balance and public transport development, while rationalizing the roles of each transport mode and reducing the burden on road transport.

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<sup>11</sup> Projected investment for roads under the program is discussed in para. 8.

<sup>12</sup> ADB. 2017. *Country Partnership Strategy: Sri Lanka, 2018–2022—Transition to Upper Middle-Income Country Status*. Manila.

### Problem Tree for Transport (Road Transport [Nonurban])

