

## SECTOR ASSESSMENT (SUMMARY): TRANSPORT<sup>1</sup>

### Sector Road Map

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

1. The Kyrgyz Republic is a mountainous, landlocked country bordering the People's Republic of China (PRC) in the east, Kazakhstan in the north, Tajikistan in the south, and Uzbekistan in the west. Regional commerce depends heavily on road transport, which dominates the Kyrgyz transport system. Approximately 95% of passenger and more than half of freight traffic is carried by road. In addition to about 35,000 kilometers (km) of roads, the country has 420 km of railway tracks, four international airports, and seven domestic airports.<sup>2</sup> From 2002 to 2010, vehicle registration increased by more than 60%, from 285,084 to 459,747 vehicles. From 2002 to 2008, freight traffic increased by 58% from 1,270 million to 2,002 million ton-kilometers, and passenger traffic rose by 35% from 4,900 million to 6,599 passenger-kilometers.

2. The Ministry of Transport and Communications (MOTC) is the leading transport agency in the Kyrgyz Republic and is responsible for transport and communications policy, regulation, planning, and development. The MOTC is responsible for maintenance of 4,163 km of international roads, 5,678 km of national roads, and 8,969 km of provincial roads. Local government agencies are responsible for developing and maintaining other secondary, rural, and urban road networks. The Kyrgyz Republic Customs Agency manages airport road, rail freight and terminal customs station inspections, with a total of eight country border checkpoints operating on a regular basis. The Kyrgyz Railway is responsible for track maintenance and for train stations, depots, workshops, and freight handling yards. Other public and freight transport modes are managed and operated by various public and private entities.

3. **Inadequate road infrastructure and maintenance.** Of the international and national roads, 33% are in poor condition and need rehabilitation or reconstruction. The remaining 67% are in sustainable condition, requiring only routine or periodic maintenance.<sup>3</sup> The road infrastructure has been routinely affected by climate-induced extreme events, including extreme temperatures, landslides, and mudslides.<sup>4</sup> Because this trend is likely to continue due to climate change, further investment will be needed in the rehabilitation and maintenance of the road infrastructure. The 2011 budget allocation of Som1.1 billion for the MOTC's maintenance work covers only one-third of the estimated Som3.5 billion needed to maintain the roads at an international standard. This financing gap makes it impossible to sustainably maintain the road network. If this situation persists, it is feared that the roads that are now in good condition or were recently rehabilitated with external or internal funding will require more investment for rehabilitation.

4. **High road crash rate.** The road safety situation in the Kyrgyz Republic requires serious attention. The total number of road crashes increased from 4,248 in 2009 to 4,813 in 2011 with estimated number of road traffic deaths up to 1,022. The increase was partly due to bad road conditions and weak regulations and enforcement. The Road Safety Secretariat, which collects

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<sup>1</sup> The summary is based on the Kyrgyz Republic transport sector master plan completed in 2012 and other documents related to Asian Development Bank projects.

<sup>2</sup> The four international airports are Bishkek Manas, Osh, Issyk-Kul Tamchy, and Karakol. The seven national airports are Batken, Jalalabat, Isfana, Kazarman, Naryn, Talas, and Kerben.

<sup>3</sup> Government of the Kyrgyz Republic. 2012. *"It's unwise to pay too much, but it's foolish to spend too little": Sustainable road sector development through asset management in the Kyrgyz Republic.* Bishkek.

<sup>4</sup> Government of the Kyrgyz Republic. 2009. *Second National Communications of the Kyrgyz Republic to the United Nations Framework Convention on Climate Change.* Bishkek.

and analyzes road traffic crash data and coordinates prevention initiatives with the government agencies concerned, often lacks secure funding and the expertise to operate the existing road safety program and improve road safety management.

5. **Lack of integrated transport system.** The country's railway network is split geographically into north and south sections. For historical reasons, technical standards and track gauges are based on the Russian system. These are compatible with the rail systems in Kazakhstan, Uzbekistan, and the Russian Federation but not with the railway network in the neighboring PRC. Effective transshipment facilities are therefore needed to facilitate the growing international traffic of goods to and from the PRC through the Kyrgyz Republic. International and regional airports are limited to major population centers and serve as hubs for air connectivity through smaller domestic services serving secondary towns and remote areas of the country. The country's airlines are not permitted to fly within the European Union due to safety concerns, so international services are provided by foreign carriers.

6. **Weak institutional commitment and capacity.** The government has been slow in implementing a reform agenda in the transport sector, including setting up an adequate budget for road maintenance and attracting private sector involvement in road maintenance operations. Weak government capacity has been evident in many projects and has resulted, among other things, in delays in providing counterpart funds and poor coordination of donor assistance.

## 2. Government's Sector Strategy

7. In the National Sustainable Development Strategy for 2013–2017 (NSDS), the government recognizes the importance of international transport corridors. It also pays special attention to achieving the country's transport independence through the construction of bypass roads to avoid unnecessary transit via neighboring states. The government also recognizes that the country's rail network does not meet the needs of regional traffic and that there is an urgent need to replace air navigation equipment.

8. To ensure regional connectivity, access to the regional markets for goods and services, and development of transit capacity and transport independence, the government envisages rehabilitation of the following five corridors (i) Osh–Sarytash–Ikeshtam, (ii) Bishkek–Naryn–Torugart, (iii) Osh–Batken–Isfana, (iv) Taraz–Talas–Suusamyr, and (v) Issyk–Kul circle and/or ring. The Issyk–Kul circle and/or ring corridor is especially important because improving access to the area could attract foreign tourists. Tourism growth is considered one of the country's economic priorities. Some assistance is expected from the United States government to improve air navigation equipment. Preliminary discussion with the World Bank on the improvement of the PRC–Kyrgyz Republic–Uzbekistan railway is ongoing. The government is interested in introducing public–private partnerships for infrastructure projects to lessen the burden of financing, maintaining, and rehabilitating roads.

9. The government prepared a transport master plan for the road, rail, and aviation subsectors with ADB support. The plan aims to develop the transport network in a systematic way.<sup>5</sup> The master plan will be the guiding document for the short-, medium-, and long-term priority investment programs in the sector until 2025 and provides a detailed blueprint for rehabilitation and maintenance. Although road maintenance is not specifically addressed in the NSDS, the master plan examined the inherent problems of the international, national and secondary road networks managed by the MOTC. It reviewed the need for updated management practices, technology upgrades, design and safety standards, and multimodal interconnectivity.

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<sup>5</sup> The transport master plan is supported by ADB Grant 0123-KGZ: CAREC Transport Corridor 1 (Bishkek-Torugart Road) Project 1.

10. Although multilateral development partners have invested about \$1 billion in the road network since 1994, its condition has not improved significantly. This is partly due to the increase in traffic and inadequate maintenance.<sup>6</sup> The government has expanded the road network but has paid little attention to asset management and maintenance, or to institutional reform, road safety, and private sector participation. When roads have been rehabilitated, no specific, long-term arrangements have been made to maintain and manage them. Government's ownership and commitment to implementing the measures recommended in the transport master plan will be critical to ensuring sustainability in the sector.

### 3. ADB Sector Experience

11. ADB has provided eight loans, three grants, and five advisory technical assistance projects in the sector since 1996. Loans and grants totaling \$350.00 million were spent on road projects, while technical assistance projects totaling \$3.29 million were focused on capacity development and institutional support. ADB assistance has rehabilitated and improved 831 km of roads in total. This included 105 km of secondary roads and 726 km of roads in key regional corridors—the Bishkek–Osh Road, for example. When ADB rehabilitated 483 km of its 670 km (ADB financed \$140 million and Japan Bank for International Cooperation financed \$62 million), 3,000 roadside households benefited from increased road-related trade activities, travel time was reduced from 20 hours to 9 hours, and the number of vehicles using the road increased from 800 before rehabilitation to 8,500 per day.<sup>7</sup>

12. Most of ADB's assistance to the Kyrgyz Republic goes to transport, and ADB is the lead development partner in the sector. Others include the PRC, the European Bank for Reconstruction and Development, the World Bank, the Islamic Development Bank, and JICA. ADB supported the development of the Central Asia Regional Economic Cooperation (CAREC) Transport and Trade Facilitation Strategy.<sup>8</sup> The strategy's three main goals are to (i) establish competitive transport corridors across the CAREC region; (ii) facilitate efficient movement of people and goods across borders; and (iii) develop safe, people-friendly transport systems. Enabling cross-border and transit transport and easing border crossing formalities at CAREC corridor border-crossing points are strategy priorities that are highly relevant to the Kyrgyz Republic. ADB's road rehabilitation work has had positive social and economic impacts in the Kyrgyz Republic, increasing access to product and labor markets and to services. ADB-sponsored projects also contributed to poverty reduction and economic growth in the region.<sup>9</sup>

13. ADB's technical assistance, on the other hand, has been piecemeal. This has resulted in weaknesses in such transport sector areas as institutional reform, road asset management, and road safety, where improvements require much more time than can be afforded under individual projects. ADB should offer a more comprehensive approach to reforming the transport sector, including capacity strengthening, setting up a robust maintenance regime, and implementing a road safety action plan.

<sup>6</sup> ADB. 2011. *Report and Recommendation of the President to the Board of Directors: Proposed Loan to the Kyrgyz Republic: CAREC Corridor 1 (Bishkek–Torugart Road) Project 3*. Manila.

<sup>7</sup> ADB. 2010. *Project Performance Evaluation Report: Road Rehabilitation Project, Second Road Rehabilitation Project, and Third Road Rehabilitation Project (Kyrgyz Republic) [Loans 1444-KGZ(SF), 1630-KGZ(SF), and 1853-KGZ(SF)]*. Manila.

<sup>8</sup> ADB. 2007. *CAREC Transport and Trade Facilitation Strategy*. Manila.

<sup>9</sup> ADB. 2011. *Completion Report: Southern Transport Corridor Road Rehabilitation Project in the Kyrgyz Republic*. Manila.

#### 4. ADB Future Assistance Program

14. Considering growing transport demand and the priorities and cooperation experience of ADB and the government, ADB will continue to assist the government in several areas.

**Connectivity.** Although the government needs to upgrade its railway and civil aviation systems, ADB's assistance under the CPS for 2013–2017 will concentrate on the road network. Roads are the most cost-effective and dependable mode of transport in the country, given its large area, low population density, extreme climate, and mountainous topography. Upgrading the rail system to serve the whole country would require significant resources and long-term planning and commitment from the government.

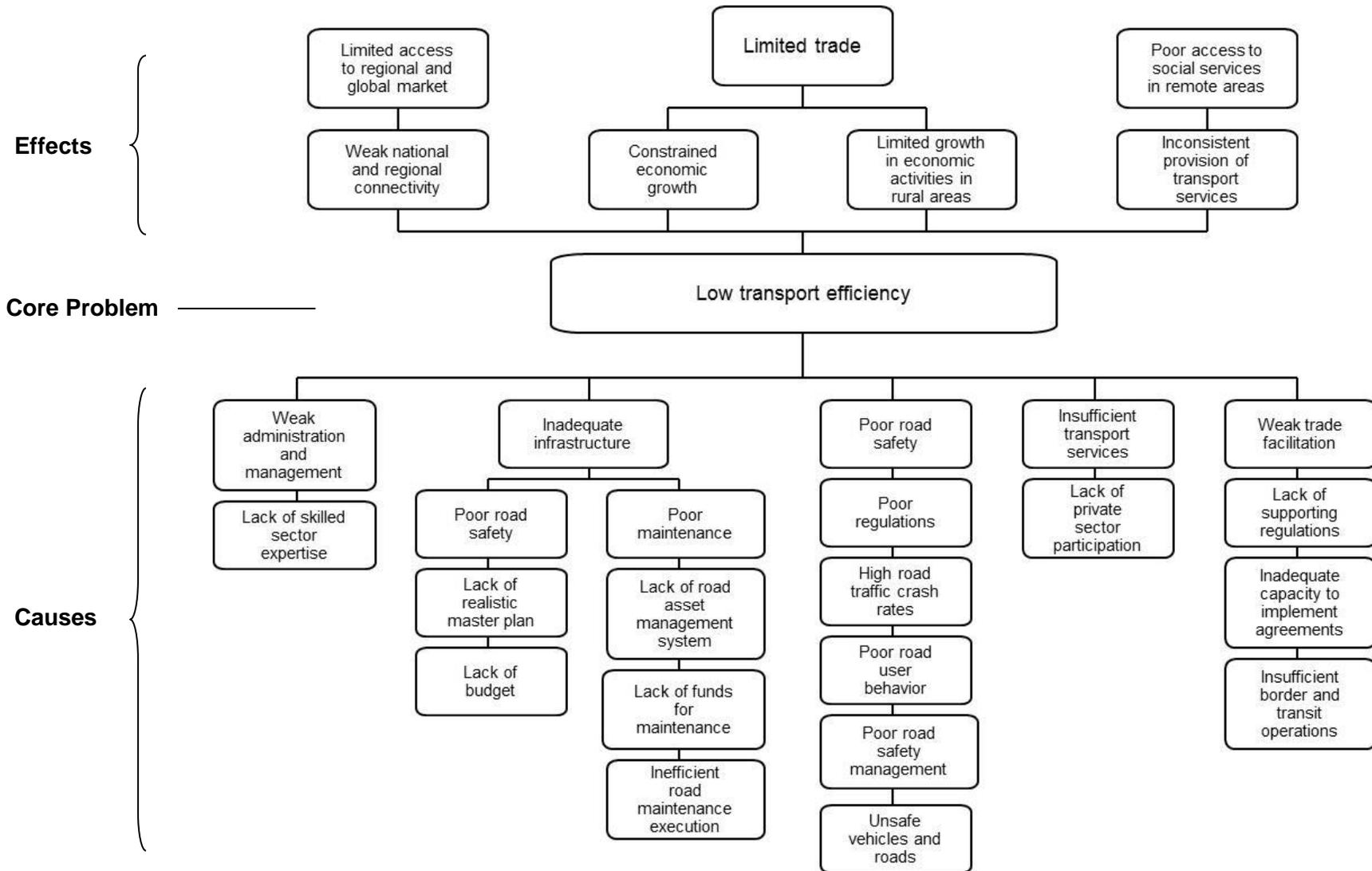
In line with the objectives under CAREC's 10-year strategic framework of expanded trade and improved competitiveness, ADB will continue to promote regional connectivity by supporting the completion of CAREC transport corridors. ADB will also help the government improve connectivity between domestic market centers and regional corridors. This will further enhance the economic value of the regional corridors. ADB will support the upgrading of village feeder roads, which is a priority concern for many rural women and will provide access to health facilities and income-earning opportunities. ADB will assist CAREC countries in facilitating the cross-border movement of goods and people along the CAREC corridors. The ADB-assisted CAREC trade facilitation program covers customs modernization, a joint customs control initiative, and other key measures for CAREC countries, including the Kyrgyz Republic. Similarly, the CAREC regional improvement of border services project covers border crossing point improvement and national single window development for the Kyrgyz Republic and Tajikistan. ADB will support the integration of climate proofing measures in the construction, operations, and maintenance of road projects.

**Maintenance.** To improve road maintenance, ADB will assist the government in developing its road asset management plan to ensure that sufficient funds are allocated for maintaining the existing network. ADB will take the lead in performance-based maintenance contracts and run pilot sections in the country. ADB will continue coordinating with other development partners with experience in road asset management in the Kyrgyz Republic to develop and expand the computer-based road management system and to support road sector reform to strengthen sustainability and resource allocation in road maintenance. These partners will include the European Bank for Reconstruction and Development, JICA, and the World Bank.

**Road safety.** Considering the high road accident rate in the Kyrgyz Republic and given CAREC objectives, improving road safety is an essential complement to strengthening the road network. ADB will continue its active involvement by helping the government improve road safety management. This will include (i) developing a national road infrastructure safety strategy and road safety checklist and guidelines; and (ii) developing a road safety action plan for all road sections that will include road safety audits and capacity building, public awareness programs, and addressing the needs of women and children by providing, for example, safe crossings and well-lit transport stops.

**Knowledge support.** Through technical assistance and projects with capacity building components, ADB will help the government address the specific needs of the sector through training, institutional strengthening, policy dialogue, issue-oriented research and studies, and the development of knowledge products.

## Problem Tree for Transport



### Sector Results Framework (Transport 2013–2017)

Country Sector Outcomes		Country Sector Outputs		ADB Sector Operations	
Sector Outcomes with ADB Contribution	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
Increased, more efficient and safer movement of people and goods	<p>Road traffic fatality rate decreased to 18 per 100,000 persons in 2017 (2011 baseline: 19.2 per 100,000 persons)</p> <p>International freight traffic will increase to 345 AADT in 2017 (2011 baseline: 320 AADT)</p>	Transport infrastructure and systems expanded, improved and maintained	<p>Percentage of road network kilometers in sustainable condition increased from 67% in 2011 to 85% in 2017</p> <p>130 km Bishkek–Osh Road rehabilitated by 2017</p> <p>60 km Bishkek–Torugart Road rehabilitated by 2017</p> <p>Percentage of estimated road maintenance needs met by annual road maintenance budget increases from 32% in 2011 to 80% in 2017</p> <p>75% of CAREC corridors improved in 2017, compared with 64% in 2007</p>	<p><b>Planned key activity areas</b> International and selected feeder road rehabilitation (80%), road asset management system (10%), road safety (5%), and cross-border facilitation (5%)</p> <p><b>Pipeline projects with estimated amounts</b> Bishkek–Osh Road rehabilitation (\$160 million, including \$65 million regional ADF allocation and \$60 million cofinancing by EDB) CAREC corridor rehabilitation (\$50 million) R-PATA Mitigating Nonphysical Barriers to Cross-Border Transport in the CAREC region</p> <p><b>Ongoing projects</b> Grant 0084 and Loan 2667–KGZ: CAREC Regional Road Corridor Improvement Project (\$45.6 million) Grant 0123-KGZ: CAREC Transport Corridor 1 (Bishkek–Torugart Road) Project 1 (\$20 million) Grant 0153 and Loan 2533-KGZ: CAREC Transport Corridor 1 Project 2 (\$50 million) Loan 2755-KGZ: CAREC Transport Corridor 1 Project 3 (\$54 million) Grant 0340 and Loan 2995: CAREC Regional Improvement of Border Service Project (KGZ: \$8.4 million)</p>	<p><b>Planned key activity areas</b> About 130 km of international and feeder roads rehabilitated Performance-based management contract piloted Road safety action plan developed Cross border agreement and facilities rehabilitated</p> <p><b>Pipeline projects</b> 120 km of international roads rehabilitated 1 cross-border transport facilitation arrangement agreement 60 km of CAREC corridor and key feeder roads rehabilitated</p> <p><b>Ongoing projects</b> 300 km of international (regional) roads rehabilitated Transport sector master plan completed Civil works with the required facilities and equipment completed for border crossing point, and national single window developed at Karamyk border</p>

AADT = annual average daily traffic, CAREC = Central Asia Regional Economic Cooperation; EDB = Eurasian Development Bank; KGZ = Kyrgyz Republic; km = kilometers; R-PATA = regional policy advisory technical assistance.

Source: Asian Development Bank.