A. The State Program on Transport Sector Development 2010-2025

1. Tajikistan’s economic growth increases transport services demand. Goods transport and passenger travels predominantly use roads because of the fragmented railways and limited air services. With common borders with Afghanistan, the People’s Republic of China (PRC), Kyrgyzstan, and Uzbekistan, Tajikistan is a crossroad for commercial traffic and its strategic location serves as a bridge for the transit of goods and services among the PRC and Central Asia, South Asia, and Middle Eastern countries. However, transport costs are high because of the country’s ailing transport infrastructure, remoteness from seaports, and mountainous terrain; the prices will further increase if timely effective measures are not taken to preserve the aged transport infrastructure assets. High transport cost discourages potential trade and transit traffic and constrains economic development. The continued improvement of the regional and national transportation network remains one of the government’s top priorities for its catalytic effect for promoting trade, social protection, and poverty reduction. Transport sector priorities are presented in Table 1.

<table>
<thead>
<tr>
<th>Road</th>
<th>Railway</th>
<th>Civil Aviation</th>
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<tbody>
<tr>
<td>• Maintain existing infrastructure</td>
<td>• Focus on commercial activities and core businesses</td>
<td>• Concentrate on core business</td>
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<tr>
<td>• Introduce taxes and/or user charges sufficient to recover road damage costs</td>
<td>• Separate core and non-core activities</td>
<td>• Ensure open access to passenger and freight service markets, subject to strict safety regulations</td>
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<tr>
<td>• Update and streamline technical standards, and the legal and regulatory framework</td>
<td>• Introduce feasibility studies for all capital investments</td>
<td>• Be specific and transparent about subsidies</td>
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<tr>
<td>• Ensure open entry to passenger and freight service markets</td>
<td>• Set clear costing systems for each line and/or section and service type</td>
<td>• Follow a transparent procurement process</td>
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<td>• Reduce border and/or visa formalities</td>
<td>• Liaise with neighboring countries to improve efficiency</td>
<td>• Compete in an open market with other private sector operators</td>
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<td>• Regulate safety via vehicle inspections and policing</td>
<td>• Implement the individual restructuring plan of the State Unitary Enterprise “Rohi Ohani Tojikiston”</td>
<td>• Renovate the aircraft fleet and aeronautical facilities of the chief flight-control center (Tojik Aeronavigation)</td>
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<td>• Regulate environmental pollution</td>
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<td>• Continue civil aviation restructuring and reform, and strengthen the legal and regulatory basis to build a competitive environment for new market participants</td>
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<tr>
<td>• Be specific and transparent about subsidies</td>
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<td>• Renovate the air fleet and upgrade air traffic control</td>
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<td>• Improve transparency to promote private sector involvement and introduce a public consultation system</td>
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<td>• Improve the compulsory insurance system</td>
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<tr>
<td>• Introduce international environmental standards into daily transport infrastructure operations</td>
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</table>

Establish consistent and reliable base data on passenger and freight movements, and publish these together with realistic traffic forecasts.

Institutionalize merit-based recruitment and promotion.

Develop intermodal transport through the (i) provision of short-term investments for the procurement of the relevant equipment, and (ii) development of shipping agents capable of intermodal operations.

Introduce an automated control system for passenger transport, based on the Global Positioning System.

Sources: Ministry of Transport and Asian Development Bank.

2. The State Program on Transport Sector Development 2010–2025 includes a list of short-, mid-, and long-term investments that are regularly reviewed and updated. The program aims to (i)

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1 This summary is mainly based on ADB, 2011. Developing Tajikistan’s Transport Sector Master Plan. Manila; and the State Program on Transport Sector Development 2010–2025 (approved by the Government of Tajikistan in April 2011).
minimize total transport costs, (ii) develop specific transport modes and enhance their efficiency, (iii) maximize the country’s transit potential and develop tourism potential, and (iv) increase transport services competitiveness. The program’s main task is to ensure reliable, efficient, and integrated transport operations; and thereby facilitate social and economic development. Nevertheless, a firm allocation of funding remains a major challenge for Tajikistan as (i) increased government investment depends on growth in the government budget, (ii) the ceilings for standard and concessional loans will be set by international financial institutions, and (iii) external borrowing will depend on the country’s gross domestic product growth.

B. Road Subsector Assessment

3. Mountainous and landlocked, Tajikistan has one of the least developed transport sectors in Central Asia and has one of the world’s highest transport costs. Tajikistan borders Afghanistan for 1,206 kilometers (km), the PRC for 414 km, the Kyrgyz Republic for 870 km, and Uzbekistan for 1,161 km, making regional cooperation a necessity to achieve sustainable economic growth. Since 2000, Tajikistan has dramatically improved its transport infrastructure to serve the rapid growth in regional trade, especially with the PRC and other Central Asian countries. The transport sector is trying to meet a soaring demand and overcome a chronic funds shortage for investment and maintenance.

4. Administration. The Ministry of Transport (MOT) is responsible for roads, railways, airports and for sector policy, regulation, planning, operations, and investment. Other government agencies regularly involved in fiscal and strategic aspects of transport sector planning and oversight include the Office of the President, Ministry of Finance, Ministry of Economic Development and Trade, State Committee on Investments and State Property Management, Anticorruption Agency, Ministry of Justice, Ministry of Labor, and Ministry of Interior (traffic police). MOT, headed by a minister and four deputy ministers, comprises eight departments.

5. Road network. Tajikistan inherited a large road infrastructure network from the former Soviet Union, totaling 26,766 km in 2008. Road transport accounted for over 75% of all freight transportation and freight turnover during 2008–2010. MOT, the governing body for the transport sector, has jurisdiction over a 14,000-km network, comprising international (3,178 km), national (2,127 km), and local (8,700 km) roads. About 12,700 km of local roads not under MOT jurisdiction are mostly rural and farm roads, and industrial access roads. The backbone of the national road network, comprising three CAREC corridors and three Asian Highways, has been largely improved with assistance from the Asian Development Bank (ADB) and other development partners.

6. Road condition. Of the national road network, paved roads account for 30%, bitumen-treated gravel roads for 45%, and gravel roads without bitumen treatment for 25%. The road network was largely constructed before the 1970s and is mostly inadequate for present traffic volumes and loads. Moreover, about 80% of the nation’s roads are in poor or very poor condition, mainly because of inadequate maintenance and severe damage during the civil conflict. Additionally, cumbersome “soft issues” such as inefficient physical inspection, inadequate freight tracking, excessive documentation requirements, and clearance delays impair service provision and lower the logistics performance of the country. The country has very limited links to neighboring non-Russian Federation countries, especially Afghanistan and the PRC. This is being improved with development partner assistance, and the contribution of road transport to economic growth, poverty reduction, and social development will be gradually restored. A commitment to road rehabilitation and maintenance should enable existing infrastructure assets to be maintained and will generate economic benefits directly linked to regional interconnectivity.
7. **Traffic growth.** Demand for road transport is outpacing that of other transport modes. MOT forecasts a 67% rise in vehicle ownership, from 3.3 vehicles per 100 people in 2008 to 5.5 vehicles per 100 people in 2015. Meanwhile, annual traffic growth rates of 11% for trucks, 6% for buses, and 12% for cars and mini-buses are expected by 2015.²

8. **Road revenue and expenses.** The government’s central budgetary process for road funding is via the Ministry of Finance. MOT develops and implements public expenditure budgets for construction, repair, and maintenance of national roads. The Ministry of Economic Development and Trade determines the government and development partner funds for road construction. The Road Construction Central Administration collects information from the regional transportation divisions and MOT’s local repair and maintenance units (GUSADs). The road rehabilitation and maintenance budgets ($700 per km for maintenance in 2012) fall short of the required investment to sustain the existing road network. The government has increased the annual maintenance budget continuously, despite general fiscal constraints. State budget allocation for road maintenance increased from TJS13.5 million in 2004 to TJS52.7 million in 2013 but is still below half of MOT’s estimated maintenance needs. This budget outlay will continue to increase by about 15% per year during 2013–2017.

9. **Road transport industry.** There are 254 road firms registered with the State Service on Transport, of which 62 are GUSADs. The State Service on Transport estimates that 23 international firms are regularly engaged in the road sector.

10. **Road freight tariffs.** Road freight tariffs have been completely deregulated, and road haulage organizations enter into agreements with customers at negotiated rates. Tariffs for passenger transport are still regulated. MOT and the Ministry of Economy jointly establish passenger transport tariffs for buses, minibuses, and taxis for urban and long-distance services.

11. **Vehicle overloading.** Overweight vehicles cause undue wear of road pavement and bridges, and threaten road safety. MOT issued regulations in 2010 limiting overweight vehicles to night travel during the local summer. In addition, MOT has prepared amendments to the Code of Republic of Tajikistan on Administrative Offences relating to the movement of heavy vehicles, oversized, and hazardous cargoes. The proposed penalties for related violations will be increased by 7 to 10 times. It is expected that by December 2013 the proposed amendments to the law will be adopted.

12. **Road safety.** The road design standards are from the former Soviet Union with some updates on contractual issues and construction and design aspects. However, they inadequately address the "operational" aspects of the roads including traffic engineering and management, and the provision of facilities for pedestrians and other vulnerable road users to create safer conditions for such groups. The World Health Organization estimated about 1,244 road deaths in 2012 as compared to the 442 reported by the traffic police.³ Major causes identified include vehicle increases, poor road conditions and infrastructure including poor lighting and/or visibility, weak enforcement of road safety regulations, inadequate road safety education, and inappropriate road user behavior (including reckless driving, driving at high speeds, random pedestrian crossings, and the frequency of livestock on rural roads).

13. **Gender.** Progress has been made in recent transport corridor investment projects. ADB’s transport sector rehabilitation assignments analyze gender-related issues at the initial investment

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project formulation and design stage. Project technical reports assess project potential to promote gender equality and women’s empowerment by improving women’s access to and use of opportunities, services, resources, assets, and participation in decision making; key related gender issues; and any adverse impacts on women and girls.\textsuperscript{4}

14. **Private sector development.** MOT is developing a strategy and program for outsourcing road maintenance to the private sector, i.e., piloting performance-based maintenance contracting as a mechanism for outsourcing road maintenance through an ADB grant project.\textsuperscript{5} Assisted by an international road maintenance consultant, two segments were selected along the Dushanbe–Kyrgyz Border (CAREC corridors 3 and 5) for pilot testing. These are Nurobod Nimich (73 km) and Vahdat Obi-Garm (76 km). MOT will finance the performance-based maintenance contract(s) through its regular road maintenance budget. The government is very hopeful about these pilot initiatives, which, if successful, will be replicated on other regional roads.

C. **Road Subsector Challenges**

15. **Resource barriers.** Projected capital expenditure for road rehabilitation is substantial, and the existing resource base is insufficient. Tajikistan faces serious fiscal challenges, and greater fiscal prudence is called for under the International Monetary Fund’s 2009 new debt limit framework. Road maintenance remains underfunded, which causes the continuing deterioration of the existing road network and infrastructure. There has been a recent effort to mobilize domestic resources to secure maintenance funds through road tolling. A public–private partnership pilot scheme on the Dushanbe–Khujand–Chanak road (350 km) introduced in 2010 by the then Ministry of Transport and Communications was debatable because of its failure to address justified public needs and benefits, and to obtain public acceptance. Future rollout plans should consider country and sectoral characteristics, market conditions, and government development objectives.

16. **Weak institutional capacity.** Failure to optimally manage the road network is aggravated by inefficiencies resulting from inadequate legal, regulatory, and institutional frameworks; and transitioning management capacity. Vehicle overloading, weak road safety, and ineffective border crossings further impact road access and the condition of the roads, and thereby limit mobility.

17. **Lack of data and analysis.** The lack of a functioning road databank with reliable information on traffic counts, road condition, and accidents hampers setting clear quantitative and measurable targets. The objectives of the transport program are to (i) increase (a) the efficiency of government regulation based on the widespread use of information and communication technologies; and (b) transport safety on the basis of full, reliable online information on traffic status; and (ii) carry out an operational analysis of collected data to develop strategic solutions. The transport program also includes a monitoring system and a planning system for export, import, and transit carriage via Tajikistan territory, including traffic transit by transport corridors.

18. **Supply shortage.** There are many government-driven construction projects, and the demand for them is huge. The few existing local design and construction companies have weak technical and financial capacity. To be able to outsource and procure all design, construction, and

\textsuperscript{4} ADB. 2010. *Report and Recommendation of the President to the Board of Directors: Proposed Grant to the Republic of Tajikistan for the CAREC Corridor 3 (Dushanbe–Uzbekistan Border) Improvement Project*. Manila; and ADB. 2012. *Report and Recommendation of the President to the Board of Directors: Proposed Grant to the Republic of Tajikistan for the CAREC Corridor 6 (Ayni–Uzbekistan Border Road) Improvement Project*. Manila.

\textsuperscript{5} ADB. 2007. *Report and Recommendation of the President to the Board of Directors: Proposed Loan, Asian Development Fund Grants, and Technical Assistance Grant to the Republic of Tajikistan for the CAREC Regional Road Corridor Improvement Project (Kyrgyz Republic and Tajikistan)*. Manila.
maintenance works from the market in the medium to long term, the government needs to strategically support the development of human resources and the construction industry.

D. Investment Plan

19. Unpredictable investment streams threaten the country’s ability to channel funds for infrastructure investments (including maintenance). Heavy dependence on external assistance in road infrastructure is likely to continue in the short term. The development of road infrastructure is a top government priority, with a road investment plan amounting to $2.3 billion for 2010–2025. Total expenditures in the transport sector for 2010–2025 are estimated at $8.5 billion, with $835.7 million for short-term priorities, $1,630.6 million over the medium term, and $6,002.7 million in the long term. Roads will absorb $2.3 billion, railways $5.9 billion, and civil aviation $0.3 billion. Financing for priority road sections for 2011–2015, as listed in the Transport Sector Master Plan, has been largely addressed. The plan is scheduled to be updated in 2013 to properly reflect the latest sector developments of both institutional and physical investments, including the CAREC Corridor 6 (Ayni–Panjakent) Road Improvement Project; the pipeline investments of Vose–Khovaling, Khovaling–Tavidara, Darband–Tavidara–Kalaikhumb Road Rehabilitation Projects, Southern Railway Extension Project, and piloting of performance based road maintenance.

PROBLEM TREE FOR TRANSPORT SECTOR

Constrained economic and social development

- Limited access to markets and social services
- High transport costs

Constrained road connectivity and serviceability

- Deteriorating road infrastructure
- Lagging network expansion

Deficient asset management

- Insufficient financing
- Operational inefficiency and skills gap

Limited private sector involvement

- Low cost recovery
- Incomplete legal and regulatory frameworks
- Shortage of qualified professionals
- Inadequate institutional arrangements
### SECTOR RESULTS FRAMEWORK (Transport, 2013–2017)

<table>
<thead>
<tr>
<th>Country Sector Outcome</th>
<th>Country Sector Outputs</th>
<th>ADB Sector Operations</th>
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</thead>
<tbody>
<tr>
<td><strong>Outcomes with ADB Contributions</strong></td>
<td><strong>Indicators with Targets and Baselines</strong></td>
<td>(i) Projects in the Pipeline with Estimated Amounts</td>
</tr>
<tr>
<td>Improved access to markets and social services</td>
<td>Growth in freight carried of 6.5% per year</td>
<td>CAREC Corridors 3 and 5 Enhancement Project ($89.0 million)</td>
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<tr>
<td></td>
<td>Growth in passenger numbers of 2.5% per year</td>
<td>(ii) Ongoing Projects with Approved Amounts</td>
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<tr>
<td></td>
<td>Transport infrastructure improved</td>
<td>Dushanbe–Kyrgyz Border Road Rehabilitation Project (Phase II)—Supplementary ($20 million)</td>
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<td></td>
<td>Sufficient road maintenance funding</td>
<td>CAREC Regional Road Corridor Improvement Project ($52.5 million)</td>
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<td></td>
<td>Road maintenance works outsourced</td>
<td>CARE Corridor 3 (Dushanbe–Uzbekistan Border) Improvement Project ($154.3 million)</td>
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<td></td>
<td>Competition in road operations and maintenance increased</td>
<td>CARE Corridor 6 (Ayni–Uzbekistan Border Road) Improvement Project ($136 million)</td>
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<td></td>
<td>Cross-border barriers reduced</td>
<td>(ii) Pipeline Projects</td>
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<td></td>
<td>Competent executing agency staff retained to facilitate project implementation</td>
<td>Better road conditions and enhanced road safety on CAREC Corridors 3 and 5 and associated sub-network totaling 175 km, Sayron–Karamyk road section (89 km) and Vose–Khovaling road (87 km)</td>
</tr>
</tbody>
</table>

**ADB Sector Operations**

(i) **Ongoing Project**

- 65 km of road reconstructed and upgraded by December 2011
- Cross-border agreement implemented with Kyrgyz Republic before 31 December 2011
- 121 km of road reconstructed and upgraded by September 2013
- 57 km of road reconstructed and upgraded by December 2014
- Infrastructure and facilities at the Dusti border crossing point rehabilitated and constructed, and goods and equipment purchased by December 2014
- Approximately 113 km road between Ayni–Panjakent and the border with Uzbekistan rehabilitated and reconstructed by 2016

(ii) **Pipeline Projects**

- Better road conditions and enhanced road safety on CAREC Corridors 3 and 5 and associated sub-network totaling 175 km, Sayron–Karamyk road section (89 km) and Vose–Khovaling road (87 km)
- Enhanced road safety and maintenance
- Improved public facilities along project roads for local communities.

**ADB = Asian Development Bank, CAREC = Central Asia Regional Economic Cooperation, km = kilometer.**