SECTOR ASSESSMENT (SUMMARY): TRANSPORT, and INFORMATION AND COMMUNICATION TECHNOLOGY[1]

Sector Road Map

1. Sector Performance, Problems, and Opportunities

1. Uzbekistan is a land-locked country providing crucial transit for the centuries-old silk route. Roads and railways carry the bulk of the passenger and freight traffic. With the country having emerged from the post-Soviet planned economy, it is gradually progressing toward a market economy. As with other landlocked developing countries, Uzbekistan faces several challenges in connectivity, logistics, and access to sustainable modes of transport.

2. The public sector agencies managing the transport sector are (i) the Republican Road Fund (RRF); (ii) Uzbekistan Railways (Uzbekistan Temir Yollari, or UTY); (iii) Uzbekistan Airways; (iv) Uzavtoyul (road construction and maintenance); and (v) Automobile and River Transport. Although no single government entity is charged with the transport sector as a whole, the sector is coordinated by the Cabinet of Ministers.

3. **Railways.** Uzbekistan has 4,014 route-kilometers (km) of rail track, of which 430 km is double-tracked. Continuous welded rail has been installed on 2,300 track-km, with 3,700 track-km of reinforced concrete sleepers. The investment focus in railways, since independence in 1991, has been on constructing new lines to avoid transit through neighboring countries. This process was largely completed with the opening of the Tashguzar–Kumkurgan line in southern Uzbekistan, bypassing Turkmenistan. The only missing line is from Angren to Pap, to link the Ferghana Valley network in eastern Uzbekistan with the rest of the system.

4. **Roads.** Uzbekistan has more than 183,000 km of roads, 42,530 km of which are highways. Highways are classified as international (3,626 km), regional (21,995 km), and national (16,909 km). While the road network is adequate, providing access throughout the country, it suffers from a backlog of rehabilitation work.

5. **Inland waterways.** Inland waterway traffic is concentrated on the Amu River, which flows east–west from Tajikistan and Afghanistan at the Uzbek–Afghan border, turning northwest toward the Aral Sea, bordering Turkmenistan. The only navigable section in regular use is from Termez to the Afghan port of Hayraton, 26 km upstream.

6. **Institutional reform.** Uzbekistan's road transport sector has undergone significant changes since 2003, yet the sector is still in a state of transition. Reform gains have emerged from improvement in road sector governance—the separation of the RRF from Uzavtoyul, and its institutional development to become a corporate entity with an appropriate organizational structure. The RRF has attained a quasi-autonomous status, which may be the first stage toward the evolution of a full-fledged road asset management system. An additional requirement would be to provide the RRF with a sustainable source of income to meet the demand for road construction and maintenance.

7. **Road funding and sustainability**. Uzbekistan's spending of 1% of its gross domestic product on roads is low by international standards.[2] The RRF is responsible for financing about

[1] This summary is based on Asian Development Bank (ADB) sector knowledge and operational experience in Uzbekistan.

25% of the entire network.[3] However, its budget remains inadequate to meet the reconstruction and maintenance requirements of the network. This has resulted in about 60% of public roads having cracks on more than 10% of the surface area as well as having 10 potholes, on average, per kilometer. The RRF needs to tap the potential of public–private partnerships, restructure its revenue system, and introduce road user charges to improve maintenance and develop the network.

8. **Cross-border facilities.** Despite significant improvements, trade facilitation and the cross-border regime in Uzbekistan remains complex and time-consuming. Transit traffic is constrained by poorly maintained infrastructure and traffic safety concerns. Border infrastructure needs to be modernized and made more efficient. Recently approved projects linking borders include components to strengthen cross-border facilities and shorten cross-border processing times.

9. **Private sector participation**. The ongoing ADB-assisted Regional Road Project[4] and the two multitranche financing facilities (MFFs) for the Central Asia Regional Economic Cooperation (CAREC) Corridor 2 Road Investment Programs[5] have stimulated private sector development by introducing international competitive bidding for some roadworks. Yet, the potential impact on private sector development is limited as the contracts for periodic maintenance of international and national roads are still a captive market for Uzavtoyul and its subsidiaries. However, some private contractors have been awarded construction and repair works by the RRF based on recognized competitive procedures; this needs to be expanded to all other works. Legal and regulatory frameworks for public–private partnerships in the transport sector also need to be finalized.

10. **Road safety**. Road safety has become a growing concern in Uzbekistan with the rapid increase in the fleet of motorized vehicles. Road accidents are a leading cause of death, especially among men. Traffic accidents average two fatalities for every 10 accidents. Uzbekistan records 1,430 fatalities per million vehicles, which is high by international standards.[6] Poor road conditions with inadequate infrastructure and weak speed control are major causes of the high fatal accidents rate.

11. **Rail reforms and restructuring**. UTY has benefited from technical assistance focused on reforming railways to serve the country's emerging market economy better. The government and UTY need to consider major policy issues to promote policy and regulatory conditions that will advance the three important and mutually reinforcing restructuring objectives—competition, productivity, and accountability—for moving UTY toward a market-oriented rail company.

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[2] The figure of 1% is estimated based on average expenditure per km for the network under RRF purview. The corresponding share in Viet Nam is 2.5% (2008), 2.3% in the People's Republic of China (2006), and 1.8% in Thailand (2006).

[3] The RRF is responsible for programming, planning, and budgeting of international and national roads. It also executes construction and reconstruction of international and national roads.

[4] ADB. 2007. *Report and Recommendation of the President to the Board of Directors: Proposed Loan to the Republic of Uzbekistan for the CAREC Regional Road Project*. Manila.

[5] ADB. 2010. *Report and Recommendation of the President to the Board of Directors: Proposed Multitranche Financing Facility to the Republic of Uzbekistan for the Central Asia Regional Economic Corridor 2 Road Investment Program.* Manila; and ADB. 2011. *Report and Recommendation of the President to the Board of Directors: Proposed Multitranche Financing Facility to the Republic of Uzbekistan for the Second Central Asia Regional Economic Corridor 2 Road Investment Program*. Manila.

[6] The corresponding figures for fatalities per million vehicles for other Asian countries are as follows: Indonesia 261, Malaysia 373, the Philippines 215, Singapore 250, Thailand 488, and Viet Nam 558.

12. **Financing of recurrent costs.** UTY finances its operating expenses partly through tariffs on freight and passenger services. Under the ADB-financed railway projects, UTY was to review tariffs regularly and ensure they cover the cost of service. Although UTY has reviewed tariffs, they do not yet reflect the full cost of service, especially for domestic customers.

13. **Logistics centers.** As a double landlocked country, transportation in Uzbekistan is an economic driver and supply chain logistics play a critical role. Uzbekistan has two logistics centers at Angren (70 miles east of Tashkent) and Navoi (a free industrial economic zone) in southwest Uzbekistan. Developing the necessary infrastructure for multimodal logistics centers, labor and management training, and market access to private entrepreneurs, are critical to the growth of the logistics industry.

2. Government's Sector Strategy

14. The government's long-term vision for the transport sector is to foster economic growth by (i) extending access to regional and world markets, (ii) improving exports, (iii) increasing transit transportation, and (iv) ensuring the sustainability of the sector. Specific aspects include (i) restructuring transport monopolies, and upgrading the means and technologies for transportation; (ii) securing optimal transport corridors to access world markets; and (iii) strengthening Uzbekistan's integration with the world economy by ensuring uninterrupted operations of transport thruways that connect Uzbekistan to outside markets.

15. The government's accelerated development program for 2011–2015 is supported by an updated national road development program for 2010–2014.[7] Investments under this program include reconstruction of existing networks, although some greenfield projects are also envisaged. Other "softer" infrastructure investments include improving institutional effectiveness, project management, and road safety. Uzbekistan has a policy framework that supports road sustainability, transport logistics, private sector investment, and road maintenance. Since 2003, the government has pursued several reforms, including (i) separating road transport operations from road construction and creating the RRF as a quasi-independent body (para. 6); (ii) promoting competitive bidding for all road construction works; and (iii) establishing an external quality control mechanism. The government has also restructured Uzavtoyul, converting it into a state joint stock company with performance and accountability targets.[8]

16. The railway sector will continue to play a dominant role in Uzbekistan's economic development because (i) railways are already connected to the major industrial mining and commercial centers, (ii) competitive tariff rates are offered for transportation of bulk commodities in large volumes, and (iii) railways have less adverse impact on the environment. The government intends to restructure UTY into a commercial and efficient entity.

17. UTY is implementing a five-year capital investment plan, 2009–2013 for a total of $1.7 billion. The financing structure of this plan is composed of UTY's own funds, loans from international institutions, and funds allocated by Uzbekistan's Fund for Reconstruction and Development. The investment plan includes (i) construction and modernization of railway lines,

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[7] Resolution of the President of the Republic of Uzbekistan No. 1446 on Accelerated Development of Infrastructure, and Construction in Transport and Communications (2011–2015). Tashkent (21 December 2010).

[8] Decree of the President of the Republic of Uzbekistan UP-3292 on Improvement of the Management System for Construction and Operation of Common-Use Roads (19 August 2003).

track, and other infrastructure facilities; (ii) electrification of railway lines; and (iii) procurement and rehabilitation of rolling stock and development of a repair base.

3. ADB Sector Experience and Assistance Program

18. The transport sector is a main area of ADB support for Uzbekistan. From 1998 to 2011, ADB approved eight loans for the transport sector totaling $850.3 million. Of these, five loans worth $610.3 million were for roads. The first loan for roads was, however, cancelled in 2003, because the road section identified was no longer a government priority. The second loan for the ongoing Regional Road Project, and the third, fourth, and fifth loans for the two ongoing CAREC Corridor 2 MFF Road Investment Programs are progressing satisfactorily. The remaining three loans were for railways, totaling $240 million. The first and second railway loans were closed in 2005 and 2007. The third loan for railway electrification was approved in 2011.

19. Implementation of the ongoing CAREC road investment program is satisfactory as (i) the program is among the government's highest priorities, so commitment to its successful implementation is high; and (ii) the executing agency is strong and capable—its program management unit (PMU) has become a source of knowledge and advice for project units of other ADB-financed projects in Uzbekistan.

20. Lessons learned from road projects include (i) project designs should be needs-based and reflect government priorities, (ii) a strong PMU is indispensable for successful implementation and can avoid delays by taking systematic advance procurement actions, and (iii) expeditious decision making by the government would ensure that contracts can be awarded quickly and be made effective as scheduled. An aid coordination group has been constituted at ADB's initiative to ensure coordinated assistance for integrated transport sector development.

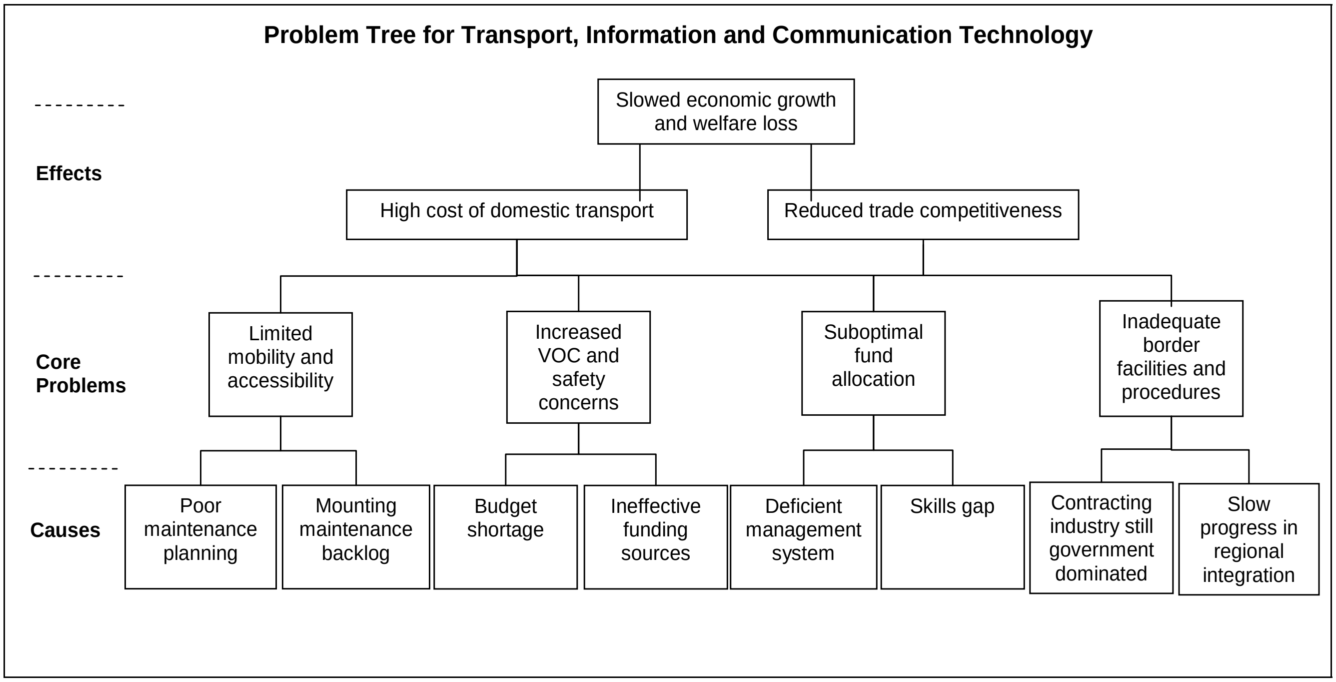
21. The CAREC Corridor 2 Road Investment Program (footnote 5) has several nonphysical investment initiatives that include community development components for (i) awareness creation on gender and development issues as well as on negative externalities, i.e., transmission of communicable diseases, human migration, and human trafficking; and (ii) community needs assessment in the project areas. The program also emphasizes road safety by including three major components: (i) development of a road safety action plan for all road sections, (ii) installation of solar road signs for the A373 Kamchik Pass Section, and (iii) a road safety capacity development program for the government.

22. ADB will continue support for the road (under the ongoing multitranche financing facilities) and rail transport subsectors to support Uzbekistan's growth and strengthen its regional cooperation prospects. This support could include enabling knowledge and expertise for the development of green freight and logistics. The envisaged MFF tranche releases for transport projects from 2012 to 2014 are in the table.

Table: ADB's Future Projects in Uzbekistan's Transport Sector

Approval Year	Project/Program Title	Pipeline		
		OCR	ADF	Total
2012	MFF- CAREC Corridor 2 Road Investment Program – Tranche 3		100	100
2012	MFF- Second CAREC Corridor 2 Road Investment Program – Tranche 2	150	0	150
2014	MFF- Second CAREC Corridor 2 Road Investment Program – Tranche 3	100	0	100
2014 (Standby)	MFF- CAREC Corridor 2 Road Investment Program – Tranche 4	100	0	100

ADF = Asian Development Fund, CAREC = Central Asia Regional Economic Cooperation, MFF = multitranche financing facility, OCR = ordinary capital resources
Source: Asian Development Bank



VOC = vehicle operating cost.
Source: ADB. 2009. *Technical Assistance to the Republic of Uzbekistan for CAREC Corridor 2 Road Investment Program.* Consultant's Report. Manila.

Sector Results Framework (Transport, and Information and Communication Technology, 2012–2016)

Country Sector Outcomes		**Country Sector Outputs**		**ADB Sector Operations**	
Outcomes with ADB Contribution	**Indicators with Targets and Baselines**	**Outputs with ADB Contribution**	**Indicators with Incremental Targets**	**Planned and Ongoing ADB Interventions**	**Main Outputs Expected from ADB Interventions**
Efficient movement of people and goods and reduced travel time along strategic transport corridors.	Traffic volumes on CAREC Corridor 2 doubled to 2,000 vpd by 2016 (2009 baseline: 1,000 vpd) Cross-border traffic at Daudata border post doubled to 50 trucks per day by 2016 (2008 baseline: 25 trucks) Travel time from Dautata to Bukhara reduced to 8 hours (2011 baseline: 12 hours), and from Tashkent to Osh border reduced to 5 hours (2011 baseline: 7 hours) Average cross-border time per truck reduced by 80% by 2016 (2009 baseline: 2 hours) Accident rate on A380 highway reduced to 75 per year by 2016 (2008 baseline: 150 accidents per year)	Road and railway systems expanded and improved	An additional 2,306 km of roads rehabilitated by 2016 Railways with electric traction increased by 1,030 km by 2016	**Planned key activity areas** National roads rehabilitation and railway infrastructure (89%) Road and rail transport capacities, policies, and reforms (11%) **Pipeline projects with estimated amounts** CAREC Corridor 2 Road Investment Program, tranche 3 ($100 million) Second CAREC Corridor 2 Road Investment Program, tranche 2 ($150 million) Second CAREC Corridor 2 Road Investment Program, tranche 3 ($100 million) CAREC Corridor 2 Road Investment Program, tranche 4 ($100 million) **Ongoing projects with approved amounts** CAREC Regional Road Project ($75.3 million) CAREC Corridor 2 Road Investment Program, tranche 1 ($115 million) CAREC Corridor 2 Road Investment Program, tranche 2 ($240 million) CAREC Corridor 6 Marokand–Karshi Railway Electrification Project ($130 million) Second CAREC Corridor 2 Road Investment Program, tranche 1 ($130 million)	**Planned key activity areas** About 589 km of CAREC roads rehabilitated About 140 km of CAREC railway routes electrified **Pipeline projects** 249 km of CAREC roads rehabilitated **Ongoing projects** 340 km of roads rehabilitated

ADB = Asian Development Bank, CAREC = Central Asia Regional Economic Cooperation, km = kilometer, vpd = vehicles per day.
Sources: Republic of Uzbekistan. 2010. *Decree of the President of the Republic of Uzbekistan. 21.12.2010, N PP-1446.* Tashkent; and Asian Development Bank.