

Transport Sector in Central Asia

The transport sector plays a relatively marginal role in the CARs in terms of its contribution to aggregate output and employment, accounting for 3–8% of GDP and 2–5% of total employment. Yet, it is crucial for the participation of the CARs in international trade and their integration into the global economy. Moreover, the degree and nature of participation of a CAR in international trade depends not only on its own transport sector but also the transport sector of its neighbors, including the other CARs, as well as on the degree of compatibility and integration of its transport sector with those of the neighbors. This is because all the CARs are landlocked and heavily rely on transporting goods by land through neighboring countries in trade with noncontiguous countries, and—to various degrees—serve each other as transit countries.¹ Deficiencies of the transport sector in one CAR are often compounded by deficiencies of the transport sector in another CAR. This largely explains why transport costs are high and transit times are long and unpredictable for international shipments to and from the CARs.

This chapter reviews the transport sector in Central Asia and identifies deficiencies of transport infrastructure,

the legal and regulatory framework for the transport sector, and transport and logistics services in the CARs that contribute to high transport costs and long and unpredictable transit times for international shipments to and from Central Asia. The chapter then discusses the benefits of regional cooperation in transport for the CARs and reviews recent initiatives in this area.

5.1 Transport Infrastructure

The CARs inherited fairly extensive and highly integrated transport networks from the FSU, which were built with little regard for their then administrative borders and mostly oriented towards the Russian Federation. There were many examples of railways and roads crossing back and forth over borders in Central Asia. At the same time, their transport links with non-FSU neighboring countries—such as Afghanistan, PRC, India, Iran, Pakistan, and Turkey—were poorly developed, with a few direct routes, most of which were in very poor condition.

Since the break-up of the FSU, the CARs have sought to improve their transport links with non-FSU

¹ In particular, Azerbaijan serves as a transit country in trade between Kazakhstan and Turkey; Kazakhstan serves as a transit country in trade between Azerbaijan and the PRC and between Kyrgyz Republic, Tajikistan, and Uzbekistan, on the one hand, and the Russian Federation, on the other; the Kyrgyz Republic and Tajikistan serve as transit countries in trade between Uzbekistan and PRC; and Uzbekistan serves as a transit country in trade between Kazakhstan and Iran and between Tajikistan and the Russian Federation.

countries, often with the support of multilateral and bilateral development agencies. Most notably, railway connections between Azerbaijan and Iran and between Kazakhstan and the PRC, and a road connection between Tajikistan and the PRC have been established. Kazakhstan, Russian Federation, and Turkmenistan have reached an agreement to build a railway that would connect Russian Federation with Iran via Kazakhstan and Turkmenistan. Kazakhstan is making efforts to build missing segments of a railway that will link the PRC with Europe via Kazakhstan, Turkmenistan, and Iran. A railway that would connect Uzbekistan with the PRC through the Kyrgyz Republic is under consideration, along with a railroad between Afghanistan and Uzbekistan. With the financial and technical assistance of ADB, the CARs have carried out or are implementing several road projects to improve their transport links with East and South Asia, a step towards reestablishing themselves as a land bridge between Asia and Europe. These projects include the rehabilitation of the Dushanbe-Kyrgyz border, Osh-Irkeshtan, Osh-Bishkek, Bishkek-Almaty, and Almaty-Astana roads. The CARs have also been taking part in the TRACECA (Transport Corridor Europe Caucasus Asia) Programme of the EU and in Asian Highway and Trans-Asian Railway projects of the UN Economic and Social Commission for Asia and the Pacific (UN ESCAP) (see Box 5.1). Overall, however, the lack of financial resources and poor coordination of national transport infrastructure projects have been slowing down progress in integrating

Central Asian transport networks into international transport networks.

At the same time, the CARs have built a number of new railways and roads primarily to avoid transit through a neighboring country, as the emergence of national borders increased transit costs and times. In particular, Kazakhstan has built the Kyzylasker-Kirovskiy road to connect the part of South-Kazakhstan Region located south of the Chardara Reservoir with the rest of the country, bypassing Uzbekistan. The Kyrgyz Republic has upgraded the Jalal-Abad-Uzgen road at a cost of about US\$12 million to link Osh and Jalal-Abad without passing through Uzbekistan. Uzbekistan has built the Uchkuduk–Misken–Karauzak railway at a cost of more than US\$10 million to connect Bukhara with Nukus via Navoi, bypassing Turkmenistan. While these new roads and railways have had certain positive impact on the development of the CARs that built them, it is not obvious that their construction would have been justifiable if the use of existing transport networks had not been beset by difficulties with transit through neighboring countries. Better use of scarce resources could have been the rehabilitation and maintenance of existing transport networks.

The CARs now possess extensive transport networks (see Table 5.1). Several transcontinental railway and road corridors connect them with neighboring countries and the rest of the world (see Figure 5.1). However, many segments

Table 5.1: Transport Networks in the Central Asian Republics, 2004
(1,000 km)

	Railways	Roads
Azerbaijan	2.1	25.0
Kazakhstan	14.3	89.0
Kyrgyz Republic	0.4	18.8
Tajikistan	0.5	12.5
Uzbekistan	4.0	43.5
Total	21.3	188.8

Source: Governments of the Central Asian republics and the authors' estimates.

Box 5.1: Participation of the Central Asian Republics in Major Regional Transport Infrastructure Projects

TRACECA Programme

The Transport Corridor Europe Caucasus Asia (TRACECA) Programme is a European Union-funded technical assistance program that aims to develop a west-east transport corridor from Europe, across the Black Sea, through the Caucasus and the Caspian Sea to Central Asia. The Programme was launched at a conference in Brussels in May 1993, which brought together trade and transport ministers from the original eight TRACECA countries (Armenia, Azerbaijan, Georgia, Kazakhstan, Kyrgyz Republic, Tajikistan, Turkmenistan, and Uzbekistan).

To date, the TRACECA Programme financed 39 technical assistance projects totaling Euro 57.7 million and 14 investment projects totaling Euro 52.3 million. The technical assistance provided through the TRACECA Programme has helped attract large investments to participating countries from international financial institutions. In particular, the European Bank for Reconstruction and Development has extended loans to Kazakhstan (US\$65 million) and Uzbekistan (US\$40 million) for the rehabilitation of railways on the basis of TRACECA projects, which have identified the condition of the rail systems in Central Asia. The small-scale investment projects financed under the TRACECA Programme include the reconstruction of the rail ferry ramp in Aktau, Kazakhstan; procurement of cargo and container handling equipment for container terminals in Aktau and Chimkent, Kazakhstan, and Bishkek, Kyrgyz Republic; establishment of container services between Baku, Azerbaijan, and Turkmenbashi, Turkmenistan; procurement of mobile equipment for a container terminal in Bukhara, Uzbekistan. In addition, the TRACECA Programme is providing co-financing for the border crossing facilitation component of the Asian Development Bank's loans to Kazakhstan and the Kyrgyz Republic (totaling US\$68 million) for the rehabilitation of the Almaty-Bishkek road.

The Asian Highway and Trans-Asian Railway

The Asian Land Transport Infrastructure Development project, which was endorsed by the UN Economic and Social Commission for Asia and the Pacific at its 48th session in 1992, has three pillars: the Asian Highway (AH), Trans-Asian Railway, and facilitation of land transport projects.

The objective of the AH is to promote the development of international road transport in the region. The Intergovernmental Agreement on the AH Network was adopted in November 2003 by the Intergovernmental Meeting and entered into force in July 2005. The Agreement identified 55 AH routes with a total length of approximately 140,000 km, which crisscross the Asian continent and reaches Europe. These include four routes (1,670 km) in Azerbaijan, eleven routes (13,189 km) in Kazakhstan, four routes (1,695 km) in the Kyrgyz Republic, three routes (1,925 km) in Tajikistan, and five routes (2,966 km) in Uzbekistan.

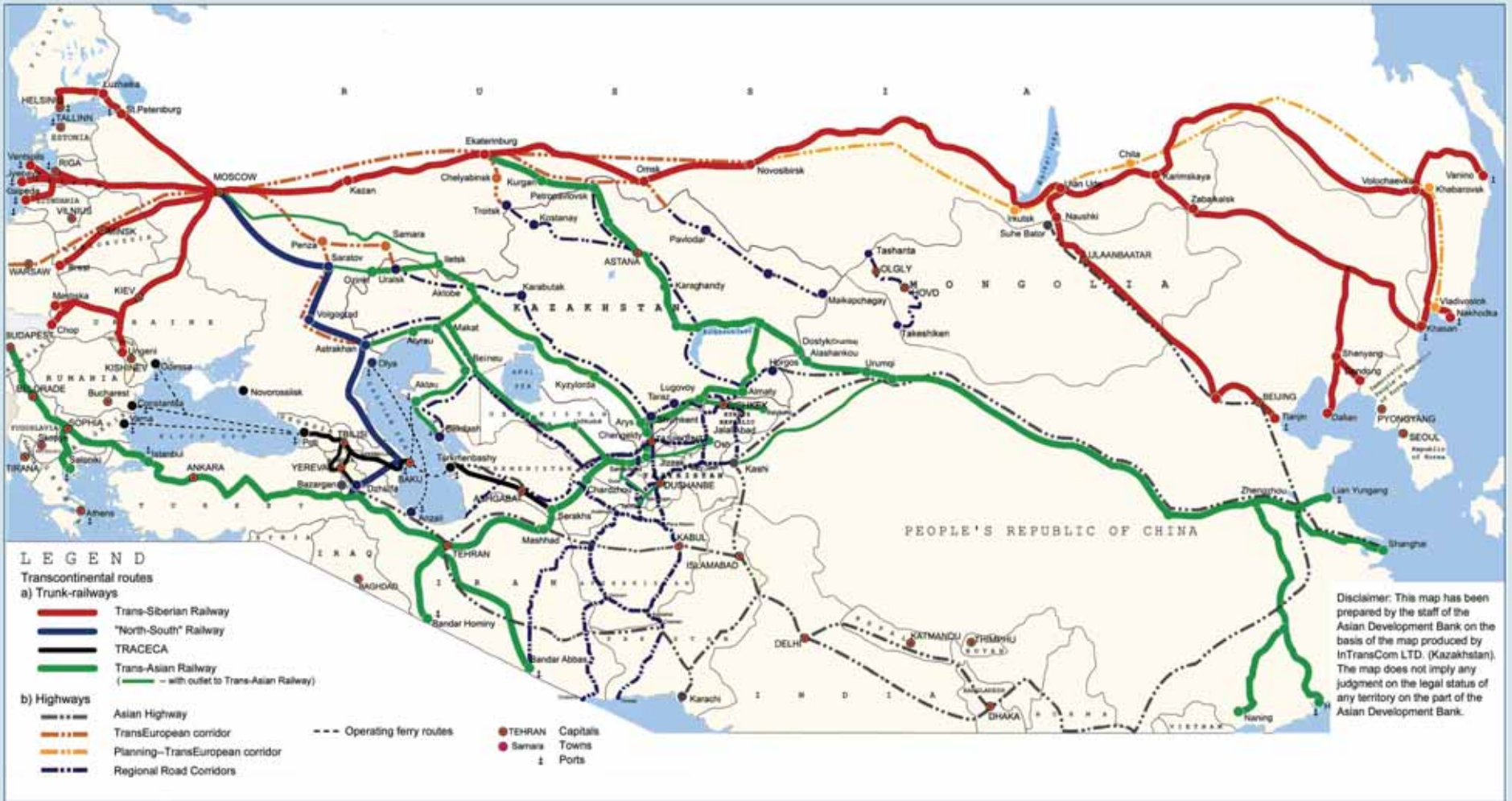
The Trans-Asian Railway (TAR) was initiated in the 1960s with the objective of providing a continuous 14,000-km rail link between Singapore and Istanbul (Turkey), with possible onward connections to Europe and Africa. Given the extent of the territory covered, the differences in standards, and differences in the levels of technical development between railways in the region, UN ESCAP adopted a step-by-step approach to define the TAR network. The network was initially divided into four major components, which were studied separately:

- (i) a northern corridor connecting the rail networks of the People's Republic of China, Kazakhstan, Mongolia, Russian Federation, and Korean Peninsula;
- (ii) a southern corridor connecting Thailand and the southern Chinese province of Yunnan with Turkey through Myanmar, Bangladesh, India, Pakistan, and Islamic Republic of Iran with Sri Lanka also part of the corridor;
- (iii) a network covering the Association of Southeast Asian Nations and Indo-China sub-regions; and
- (iv) a north-south corridor linking Northern Europe to the Persian Gulf through the Russian Federation, Central Asia, and South Caucasus.

The next challenge is to move towards joint operationalisation of these corridors in a coordinated manner at financial, operational, and commercial levels. In particular, institutional and technical bottlenecks have to be identified and specific remedial measures have to be defined and implemented. The development of common information technology systems has to be given proper attention as well as the development of efficient access to ports and inland container depots.

Source: <http://www.traceca-org.org/> and <http://www.unescap.org/>

Figure 5.1: Rail and Road Corridors Connecting the Central Asian Republics with the Rest of the World



Source: Asian Development Bank.

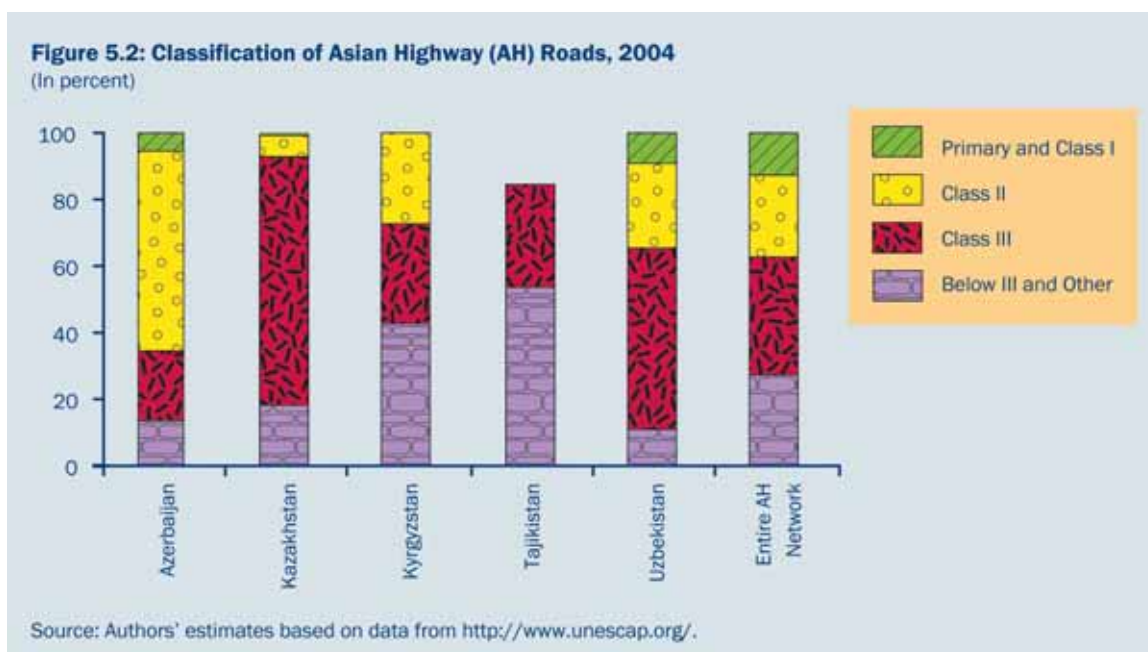
of these corridors are still missing or in poor condition, and many railways and roads the CARs inherited from the FSU have deteriorated. Only a small proportion of Central Asian roads included in the AH Network have been classified by the UN ESCAP as “Primary” or “Class I,” while a significant proportion of them have been classified as “Class III” or worse (see Figure 5.2). It is estimated that only 25% of roads in the Kyrgyz Republic and 20% of roads in Tajikistan are in good condition. The reasons are (i) the lack of maintenance due to inadequate financing; (ii) the Soviet standards in accordance with which most of these roads were built and which are inappropriate for the current level of traffic and modern trucks; and (iii) the low quality of maintenance due to corruption and limited use of modern technology and equipment.

Many other elements of transport infrastructure are also underdeveloped and in poor condition. Most notably, multimodal transport infrastructure is underdeveloped. The rolling stock in rail transport is of old technology and has been cannibalized to avoid purchasing new spare parts and

units. The lack of locomotives and train paths at border crossing points is a serious obstacle to cross-border movements of trains.² There is substantial overcapacity in basic vehicles in road transport, but specialized vehicles—such as temperature-controlled ones—are in short supply. While Azerbaijan, Kazakhstan, and Uzbekistan have recently bought or leased a number of modern airplanes, the air fleets in the Kyrgyz Republic and Tajikistan are mostly obsolete. Many airports need reconstruction.

5.2 Legal and Regulatory Framework

Since independence, the CARs have made considerable progress in establishing a legal and regulatory framework for the transport sector, but much remains to be done. The existing frameworks are weak and less than transparent. In particular, the existing sector-specific legislation on transport safety and security is often too general, contradictory, and complicated, which creates ample possibilities for interpretations and corruption. Most rules and regulations are prepared in a nontransparent



² Due largely to these and other transport-related factors (such as the need for technical inspection of the trains and shunting of damaged wagons), border crossing by a cargo train takes from several hours to several days in the CARs, compared with 30–40 minutes in Europe and 60 minutes recommended by the UN Economic and Social Commission for Europe.

manner. Information on changes and amendments is often limited and getting information on all relevant laws and regulations can be quite difficult. Laws and regulations concerning competition in the transport sector are generally weak and in some cases, allow state-owned companies to perform both regulatory and commercial functions.

The CARs have acceded to a number of basic international transport agreements and conventions, but many others are yet to be signed. In 2001, the UN ESCAP identified seven international transport agreements and conventions that it recommended all member countries to sign. Of these, only one has been signed by all of the five CARs (See Appendix 4). Even those international agreements and conventions that the CARs have acceded to are often not respected in practice and overridden by domestic regulations and unofficial practices.

Cross-border and transit traffic are mostly governed by multilateral and bilateral transport agreements that CARs have signed with each other and with neighboring countries.³ Although these agreements are generally better implemented than international agreements and conventions, they have resulted in a very complex regional regulatory framework for the transport sector and, with a few exceptions, have not been particularly effective in facilitating cross-border and transit traffic. Furthermore, there has been little harmonization of transport legislation and regulations among the CARs.

Consequently, national transport legislation and regulations currently in place in the CARs differ markedly and create serious obstacles to cross-border and transit traffic. A major problem is the availability and cost of transport permits, which foreign transporters generally need to obtain in order for their vehicles to be allowed to enter (and pass through) the territory of a CAR. Such permits are usually issued by government agencies on the basis of a bilateral agreement whereby country A allows a certain number of vehicles from country B to enter (and pass through) its

territory free of charge in return for country B allowing the same number of vehicles from country A to enter (and pass through) its territory free of charge. The problem with this standard international arrangement is that the demand in many foreign countries for permits to enter the CARs is often greater than the demand in the CARs for permits to enter those foreign countries. The result is a shortage of permits for foreign vehicles to enter the CARs and a surplus of permits for vehicles from the CARs to enter the foreign countries. Consequently, in order for their vehicles to be allowed to enter the CARs, foreign transport operators often have to purchase nonreciprocal permits at a substantial cost. In addition to the entry (and transit) fees, the CARs levy other charges and fees, such as a road tax and an excess axle load charge, on foreign vehicles (see Table 5.2). Combined with entry (and transit) fees, these additional charges and fees can make the cost of entering (and passing through) the CARs quite high for foreign vehicles.

Another significant regulatory barrier to cross-border and transit traffic is visa requirements for foreign drivers. Citizens of most foreign countries need a visa to enter the CARs. Even among the CARs, citizens of the Kyrgyz Republic and Tajikistan need a visa to enter Uzbekistan and vice-versa. In Azerbaijan, Kazakhstan, Kyrgyz Republic, and Uzbekistan, it is possible to obtain a visa at an airport upon arrival, but even in these CARs countries, it is not possible for foreign truck drivers to obtain a visa at border crossing points. Consequently, if a foreign driver needs a visa to enter a particular CAR, he has to obtain it in advance from an embassy of that country. This can be time consuming and can cause delays, particularly if the CAR concerned does not have an embassy in the country where the driver resides. In addition, the cost of an entry visa in the CARs is relatively high. For example, a single-entry Kazakh visa can cost a citizen of a non-CIS country as much as US\$70, a single-entry Kyrgyz or Uzbek visa US\$75, and a single-entry Tajik visa US\$60. The total cost of visas for the driver and co-driver can increase transport costs significantly if a foreign vehicle needs to pass through several of the CARs and neighboring countries.

³ See Sims (2005) for a list of multilateral and bilateral regional transport agreements signed by CARs.

Table 5.2: Charges and Fees Levied by the Central Asian Republics on Foreign Trucks
(As of 1 January 2006)

Country	Charges and Fees
Azerbaijan	<ol style="list-style-type: none"> 1. An entry fee of US\$100–\$150. 2. An exit fee of US\$100. 3. A road tax based on the length of stay and number of axles. 4. A charge on heavily-loaded trucks based on the weight of the truck. 5. A charge on trucks carrying dangerous goods.
Kazakhstan	<ol style="list-style-type: none"> 1. A transit fee of US\$78. 2. A charge for an excess axle load. 3. A charge for excess dimensions.
Kyrgyz Republic	<ol style="list-style-type: none"> 1. An entry fee of US\$50 for trucks from non-CIS countries. Trucks from the CIS countries are exempt from the fee. 2. The tolls to be paid for passing through a tunnel along the Bishkek-Osh road are 5–10 times higher for foreign trucks than for domestic ones.
Tajikistan	<ol style="list-style-type: none"> 1. Entry fee of US\$50–\$150 for trucks from CIS countries (with the exception of the Kyrgyz Republic and Uzbekistan) and US\$100–\$200 for trucks from non-CIS countries. Trucks from the Kyrgyz Republic are exempt, and the fee is US\$130 for trucks from Uzbekistan. 2. A transit fee of US\$90 for trucks from all countries, excluding the Kyrgyz Republic. Trucks from the Kyrgyz Republic are exempt from the fee.
Uzbekistan	<ol style="list-style-type: none"> 1. Entry fee of US\$300 for trucks from Kazakhstan and the Kyrgyz Republic, US\$130 for trucks from Tajikistan, and US\$400 for trucks from non-CIS countries. Trucks from the Kyrgyz Republic going from one part of the Kyrgyz Republic to another through Uzbekistan are exempt from the fee. 2. A charge for an excess axle load. 3. A charge for staying more than 8 days. 4. A charge of US\$5–\$20 for mandatory civil liability insurance.

Note:

CIS – Commonwealth of Independent States

Source: Sims (2005) and information collected by the authors.

5.3 Transport and Logistics Services

The availability, quality, and costs of transport services in the CARs compare unfavorably with many other countries.⁴ In particular, international rail services for small cargo (i.e., cargo of less than one wagonload or five-ton container-load) are either not available or very

costly with long booking and transit times. International shipments by road are fairly expensive and unreliable. Inter-modal piggyback operations (e.g., trailers on rail wagons) are nonexistent. Airfreight services are underdeveloped and expensive. Scheduled consolidated services are unpredictable and among the most expensive in the world.⁵

⁴ See, for example, Jenkins and Pezant (2003), Molnar and Ojala (2003), and World Bank (2005b) for an in-depth analysis of the state of transport services in Central Asia.

⁵ In consolidated (or groupage) services, the capacity of a vehicle is filled with several individual shippers' parcels. The consolidated capacity is offered to a large number of customers typically according to a fixed schedule of departures and arrivals. This is standard practice in international freight forwarding.

Lack of competition is one of the main reasons for the low quality and the high costs of rail and air transport services. State-owned railways maintain monopoly positions in rail transport and continue to perform both regulatory and commercial functions, although restructuring of railways has been underway in Kazakhstan and Uzbekistan and is under consideration in Tajikistan. Likewise, state-owned airlines dominate the market for air transport services in all the CARs, including Kazakhstan, where there are 47 private and only one state-owned air carrier (see Table 5.3). In Azerbaijan, Tajikistan, and Uzbekistan, state-owned airlines also effectively control major airports. The lack of competition has resulted in inefficiencies in transport services, lack of commercial management of operations, and underinvestment in transport infrastructure, especially in rail transport.

Although state-owned enterprises in the road transport have largely been privatized, competition remains limited in the market for international transport services. The need for expensive equipment and difficulties with transit through neighboring countries give large foreign transport operators a competitive edge and make it relatively difficult for local companies to enter this market. The market is therefore dominated by a small number of large transport operators, mostly from Iran and Turkey. In contrast, competition is stiff in the market for domestic road transport

services, which is mostly comprised of small and micro firms. The cost of domestic transport services is relatively low—due in part to low wages and operating costs, and oversupply of old equipment not suited for international traffic—but the quality of services is low as well.

The share of own account transport is very high, especially for domestic road transport services. It is estimated that almost 80% of domestic road freight in Uzbekistan and over 50% in the other CARs is carried for own account. This is typical in countries where there is overcapacity and the level of sophistication of transport and logistics markets is low. The high share of own-account transport effectively hinders the development of domestic transport markets. This situation is difficult to change in Central Asia since many shippers prefer their own transport capacity, which is often cheaper and deemed more reliable and flexible than what can be bought in the market.

The limited availability of multi-modal transport operations and relatively high costs of international transport services for small cargo are due largely to the underdevelopment of logistics infrastructure and services. There are no modern logistics centers in any of the countries that could consolidate freight for the international market in sufficient volumes and allocate them to the most efficient transportation mode.⁶

Table 5.3: Estimated Share of State-Owned Companies in the Provision of Transport and Logistics Services in the Central Asian Republics, 2004
(In percent)

	Azerbaijan	Kazakhstan	Kyrgyz Republic	Tajikistan	Uzbekistan
Rail transport services	100	100	100	100	100
Scheduled air transport services	>40	>50	100	100	100
Airport services	100	40	100	100	100
Road transport services	0	20	50	30	25
International freight forwarding	10	10	20	10	10

Source: Authors' estimates

⁶ World Bank (2005b).

International logistics providers have largely stayed outside the region, citing the small size of the market, unfavorable regulatory environment, and corrupt practices. There has been little FDI in logistics infrastructure and limited transfer of know-how in logistics services. Local logistics companies are mostly small, and lack the facilities and expertise to provide quality services.

As part of the ADB study on Central Asia regional cooperation in trade, transport and transit, a “logistics friendliness” survey was conducted in the CARs in late 2004–early 2005. Companies involved in international transportation and trade were asked to assess the “friendliness” of the CARs and several comparator countries in terms of affordability, speed, and reliability of logistics services. Although the survey covered a relatively

small number of companies (about 10 in each CAR) and its results need to be treated with caution, they indicate that the CARs are much less “logistics friendly” than the US and the EU countries, and somewhat less “logistics friendly” than the Russian Federation. As compared with the EU countries and the US, the CARs rank particularly low in terms of reliability of logistics services. Among the CARs, Kazakhstan and the Kyrgyz Republic are most “logistics friendly” while Tajikistan is least “logistics friendly.”⁷

5.4 Regional Cooperation in Transport

Increased regional cooperation with each other and neighboring countries in transport in the form of coordinated development of national transport networks,



⁷ These results are broadly consistent with the results of a similar survey reported in Ojala, Naula, and Queiroz (2004).

simplification, and harmonization of the legal and regulatory framework, facilitation of entry and transit of foreign vehicles, liberalization of trade in transport services, benchmarking, and exchange of know-how in restructuring of state-owned railways, airlines, etc. would help the CARs reduce transport costs for international shipments and make transit times for such shipments shorter and more predictable. This would, in turn, help the CARs expand trade, especially with distant countries, take more active part in GPN and related trade in manufactured products, diversify trade in terms of both commodity composition and geographical distribution, increase the gains from participation in international trade, and reduce the associated costs.⁸ Facilitation of transit of foreign transport equipment would also help the CARs avoid the construction of new bypassing railways and roads, allocate more resources to the rehabilitation and maintenance of existing transport networks and their closer integration with international transport networks, and become a land-bridge for rapidly expanding trade between East and South Asia, on the one hand, and Europe, on the other. Thus, the benefits of regional cooperation in transport for the CARs are substantial.

There have been a number of regional cooperation initiatives pertaining to transport and involving CARs. Apart from the three major regional transport infrastructure projects described in Box 5.1, four other initiatives can be highlighted. First, a Transport Sector Coordinating Committee has been set up under the CAREC Program to develop transport services in the member countries and improve their transport links with each other and the rest of the world. Second, the Central and South Asia Transport and Trade Forum, which involves Afghanistan, Iran, Pakistan, Tajikistan, Turkmenistan, and Uzbekistan, and is also supported by ADB, seeks to facilitate movements of goods and vehicles along two road corridors connecting Tajikistan, Turkmenistan, and Uzbekistan with seaports in

the Arabian Sea and the Persian Gulf via Afghanistan. Third, transport is one of the focus areas of the Shanghai Cooperation Organization, which consists of the PRC, Kazakhstan, Kyrgyz Republic, Russian Federation, Tajikistan, and Uzbekistan. Finally, transport is one of the priority areas of regional cooperation among Azerbaijan, Kazakhstan, Kyrgyz Republic, Tajikistan, Turkmenistan, and Uzbekistan under the UN Special Programme for the Economies of Central Asia.

Nevertheless, regional cooperation among as well as between the CARs and their neighbors in the area of transport, especially transport regulations and services, has been less than satisfactory. The main reasons are: the lack of political will, uncertainty about and unequal distribution of benefits and costs of cooperation among and within the countries concerned; opposition of vested interests that stand to lose from improved regional cooperation in transport; weak implementation capacity overstretched by numerous national and regional initiatives; and security concerns, which often prompt CARs to take measures that obstruct entry and transit of foreign transport equipment.

The CAREC member countries have recently agreed on the Regional Transport Sector Road Map, which formulates the strategic priorities for regional cooperation in the transport sector. The goal is to develop an integrated and efficient transport system that will improve transport links of the CAREC member countries, enhance their access to outside large markets, reduce transport costs, improve transport services, and facilitate cross-border and transit traffic in the region. The five strategic priorities are:

- (i) Harmonization and simplification of cross-border transport procedures and documentation among the CAREC member countries to facilitate the movement of passengers and freight across borders;

⁸ Moran (2002) finds that the benefits of trade liberalization that is accompanied by the establishment of international supply chain arrangements [which often require inexpensive, fast, and reliable transport services] between developed and developing countries can be 10–20 times larger than those accruing from trade liberalization alone.

- (ii) Harmonization of transport regulations among the CAREC member countries to create a level playing field for transport operators, and promote efficiency and better services;
- (iii) Development and improvement of regional and international transport corridors to link production centers and markets within the CAREC member countries, and to enhance CAREC member countries' access to neighboring regions and markets;
- (iv) Restructuring and modernization of railways to provide quality and efficient services through private sector participation and improved corporate governance; and
- (v) Improvement of sector funding and management to ensure that the regional transport network is developed, and maintained properly.

The Road Map addresses most of the deficiencies of the transport sector in Central Asia discussed above. It is, therefore, important that the Road Map be fully implemented. To this end, the CAREC member countries need to develop and carry out a detailed time-bound action plan, which would include specific measures aimed at implementing the Road Map. In addition, they should consider extending the Road Map to address deficiencies of air transport in Central Asia, and developing economic corridors on the basis of selected transport corridors connecting them with each other and the rest of the world.⁹ For their part, multilateral institutions need to make adequate technical and financial assistance available to the CAREC member countries for them to be able to implement the Road Map and develop economic corridors that would enable them to expand trade and establish regional production networks along key transport corridors.

5.5 Conclusions

The CARs inherited highly integrated transport networks from the FSU, which were built with little regard for their then administrative borders and mostly oriented towards the Russian Federation. At the same time, their transport links with non-FSU neighboring countries—such as Afghanistan, PRC, India, Iran, Pakistan, and Turkey—were poorly developed. Since the break-up of the FSU, the CARs have sought to improve their transport links with non-FSU countries, but a lack of financial resources and poor coordination of national transport infrastructure projects have been slowing down progress in integrating their transport networks into international transport networks.

Simultaneously, the CARs have built a number of new roads and railways primarily to avoid transit through a neighboring country. While these new roads and railways have had certain positive impact on the development of the CARs that built them, it is not obvious that their construction would have been justifiable if the use of existing transport networks had not been beset by difficulties with cross-border movements of people, transport equipment, and goods. A better use of limited financial resources would have been the development of international transport corridors and rehabilitation and the maintenance of existing networks. Central Asia now possesses an extensive transport network, but much of it is in poor condition and requires rehabilitation. Other elements of transport infrastructure—with the exception of air transport infrastructure in Azerbaijan, Kazakhstan, and Uzbekistan—are also underdeveloped and in poor condition.

Although the CARs have made considerable progress in establishing a legal and regulatory framework for the transport sector since independence, much remains to be done. The existing frameworks are weak and nontransparent. National transport legislation and regulations differ significantly and create serious obstacles

⁹ The concept of “economic corridors” expands the concept of transport corridors to include a simultaneous focus on developing associated production, investment, and trade linkages within a well-defined geographic area. For a more detailed explanation of the concept, see Abonyi and Zola (2003).

to cross-border and transit traffic. A major problem is the availability and the cost of transport permits, which foreign transport operators generally need to obtain in order for their vehicles to be allowed to enter (and pass through) the territory of the CARs. There is a shortage of reciprocal (free) transport permits, while the cost of nonreciprocal transport permits is high. In addition to obtaining a transport permit, foreign transport operators need to pay various taxes and charges, such as a road tax and an excess axle load charge, to enter (and pass through) the territory of the CARs. Furthermore, foreign drivers generally need a visa to enter a CAR and have to obtain it in advance at an embassy of that CAR. This often causes delays because the CARs have cumbersome visa procedures and do not have embassies in many countries.

The availability, quality, and costs of transport services in the CARs compare unfavorably with many other countries. Lack of competition is one of the main reasons for the low quality and high costs of rail, air, and international road transport services. Competition is stiff in the market for domestic road transport services. The cost of these services is relatively low, but the quality is not high either. The share of own account transport is very

high, which is an impediment to the development of markets for transport services. The availability of multi-modal transport operations is limited and costs of international transport services for small cargo are relatively high due largely to the underdevelopment of logistics infrastructure and services. This is a serious obstacle to the development of small- and medium-sized enterprises, which have been an engine of employment generation, export expansion, and economic growth in many other countries.

There have been a number of regional cooperation initiatives aimed at removing the deficiencies of transport infrastructure and services and facilitating cross-border and transit traffic in the CARs and neighboring countries. Notably, the CAREC member countries have recently agreed on the Regional Transport Sector Road Map, which formulates the strategic priorities for regional cooperation in the transport sector and addresses most of the deficiencies of rail and road transport in Central Asia. The CARs and other CAREC member countries now need to develop and carry out a detailed time-bound action plan to implement the Road Map. They should also consider extending the Road Map to address deficiencies of air transport in Central Asia.