2.1.7 Current Status and Issues of Other Peripheral Countries

2.1.7.1 India

(1) Assistance of India to Afghanistan

India has, as a member of the international community, extended assistance to Afghanistan. Just after the suicide bomb attack at the Indian Embassy in Kabul on July 7, 2008, President Karzai visited India on August 3-5, 2008. Then, India promised assistance of US$450 million in addition to US$750 million already committed.

The main contents of Indian assistance to Afghanistan are a 218km road construction project between Zarang and Dilaram (completed on January 22, 2009) and construction of power transmission lines between Pul-e-Khumri and Kabul (it was to be completed in April 2009). In addition, 250 thousand cubic meters of wheat was given for free, and the Indira Gandhi Children's Hospital in Kabul was reconstructed.

As education and capacity building projects, India accepts students from Afghanistan, trains 1,000 construction workers, and gives financial assistance to women's independence and small-scale development projects.

2.1.7.2 Present Conditions and Issues on Road Transport in India

1) Present Conditions of the International Trunk Road Network in India

A. Present Asian Highway Network in India

Table 2.11 International Trunk Roads in India

Route No.	Itinerary	Length (km)	Selection Criteria
AH1	Moreh (border of Myanmar) – Imphal – Nagaon – Dawki (border of Bangladesh)	834	*Connection between Capitals *Connection between Industrial/Agricultural Centers
	Bangaon (border of Bangladesh) – Kolkata – Barhi – Kanpur – Agra – New Delhi – Attari (border of Pakistan)	2,036	*Connection between Capitals *Connection between Industrial/Agricultural Centers *Connection between major Ports *Connection between Cargo Terminals
AH2	Border of Bangladesh – Siliguri – Border of Nepal	53	*Connection between Capitals *Connection between Industrial/Agricultural Centers
	Banbasa (border of Nepal) – Moradabad – New Delhi	324	
AH42	Raxaul (border of Nepal) – Barauni – Nawada – Barhi	457	*Connection between Industrial/Agricultural Centers *Connection between major Ports *Connection between Cargo Terminals
AH43	Agra – Gwalior – Nagpur – Hyderabad – Bangalore – Krishnagiri – Madurai – Dhanushkodi (to Sri Lanka)	2,433	*Connection between Industrial/Agricultural Centers *Connection between Cargo Terminals
AH45	Kolkata – Kharagpur – Bhubaneswar – Visakhapatnam – Vijayawada – Chennai – Krishnagir	1,945	*Connection between Industrial/Agricultural Centers *Connection between major Ports *Connection between Cargo Terminals
AH46	Kharagpur – Raipur – Nagpur – Dhule	1,508	*Connection between Industrial/Agricultural Centers
AH47	Gwalior – Indore – Dhule – Mumbai – Bangalore	2,060	*Connection between Industrial/Agricultural Centers *Connection between major Ports *Connection between Cargo Terminals
Total		11,650	

Source: Asian Highway Database 2009, UN ESCAP

In 1993, the A.H. in India was redesigned to include 7 road sections and it was again modified (i.e. route changes) during a review of the network in 2002 so that some road sections completed bypass routes. However, even after the review, A.H. network, basically, still follows the same principle of that of 1993. The road network in India forms a diamond shape and they are connected with each other at the 4 large cities, Delhi、Mumbai, Kolkata and Chennai. The A.H. road network in India is shown in Table 2.11 and Figure 2.43.

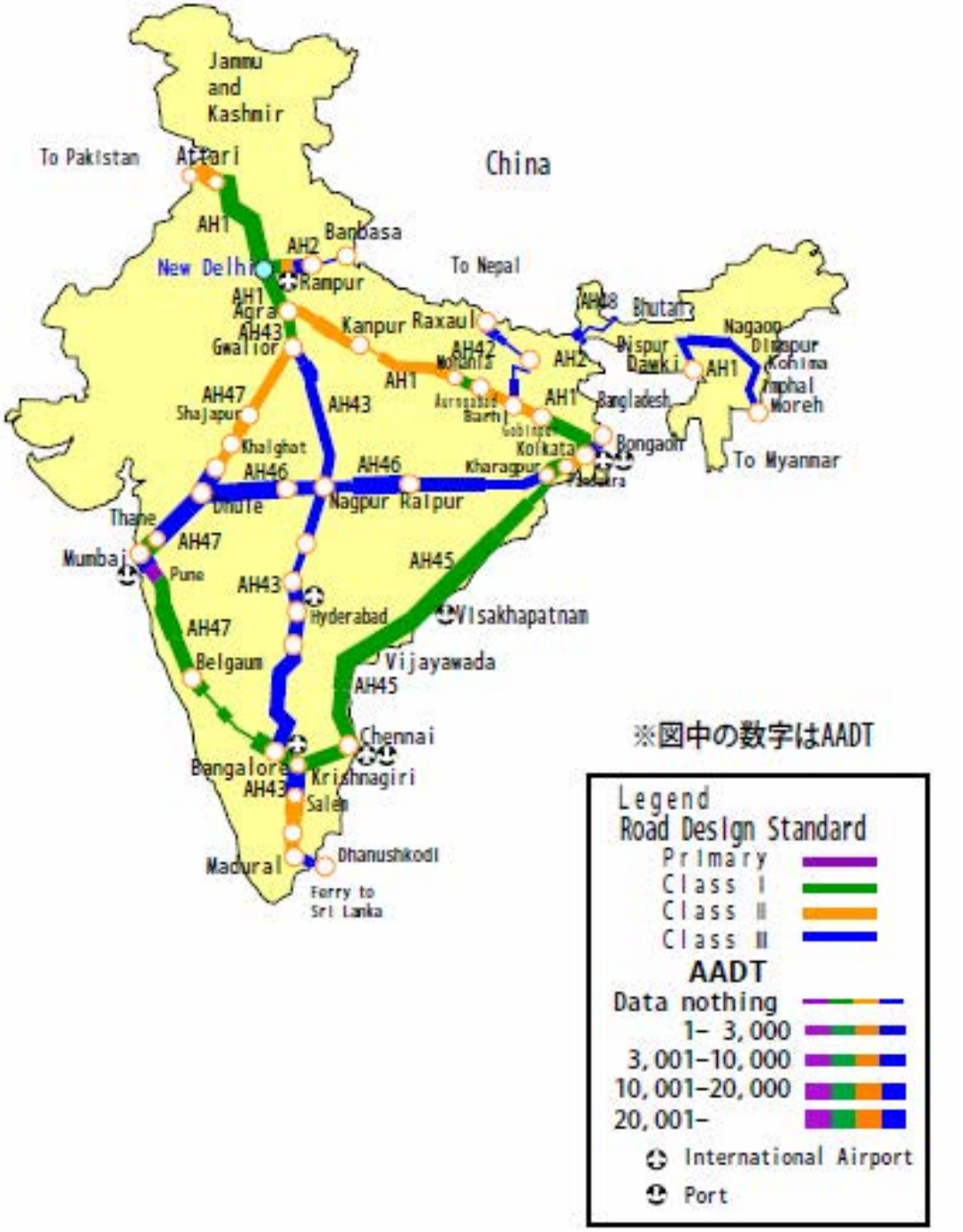


Figure 2.43 A.H. Road Network in India

B. Present Asian Highway Network in India

In India, there are A.H roads with various classes from Primary to Class III and the only section which is identified as primary is the 90km between Panvel and Pune, which is adjacent to Mumbai. The following explanations show the outline of the A.H. which is called the Golden Quadrangle in India.

- The road section between Deli and Kolkata is classified as Class II with the exception of some sections near Deli and Kolkata area that are classified as Class I.
- The road section between Deli and Mumbai is classified as Class II with exception of a section near Mumbai that is classified as Class I.
- The road section between Kolkata and Chennai is classified as Class I.
- The road section between Mumbai and Chennai is classified as Class I with the exception of some sections which are classified as Class II.

C. Issues

The road mode carries 85% of all passengers and 65% of all cargo transported and it is identified as a major transportation mode. The road length reaches 3,300,000 km and it is the second longest length in the world. However, the road length per population of 1000 remains at only 2.75km, which is lower than the world average of 6.7 km, hence, the domestic road network does not satisfy the road transport needs. Particularly, the road capacity is insufficient since the dual carriage way road network occupies only 14% of the national trunk road and 1% of rural roads. Moreover, the single carriageway road network still represents 59% of national roads and 22% of rural roads. Hence, average traveling speed is slow at around 50km/hr.

On the other hand, the Government promotes the Expressway construction/development by the private sector such as BOT or PPP that reaches approximately 5,600km.

As explained above, there is much difference in terms of road development level, and this creates unbalanced conditions between the urban and rural areas. This situation is caused by the absolutely insufficient budget allocation. Some other issues are difficulties in land acquisition for road right of way and environmental measures.

(3) Present Situation and Issues on Railway Sector

Railways in India are operated and managed by the National Railway of India, under the supervision of the Ministry of Railways. The number of its employee is 1.4 million; this is the most of any country in the world. The distribution of the railway network is the largest in the world, 18 million passengers per day and 2 million tons of freight traffic. The number of stations is 6,900, total length of the line is 63,000 Km. The gauge is generally 1,676 mm but some railway lines apply 1,000 mm or 767 mm gauge to save construction cost. Both freight and passenger transports are increasing, income and expenditure has been in surplus in the last ten years. Gross annual profit in the year 2008 was 134,311 million Rupees, and the ratio of passenger and freight transport is 3 to 7.

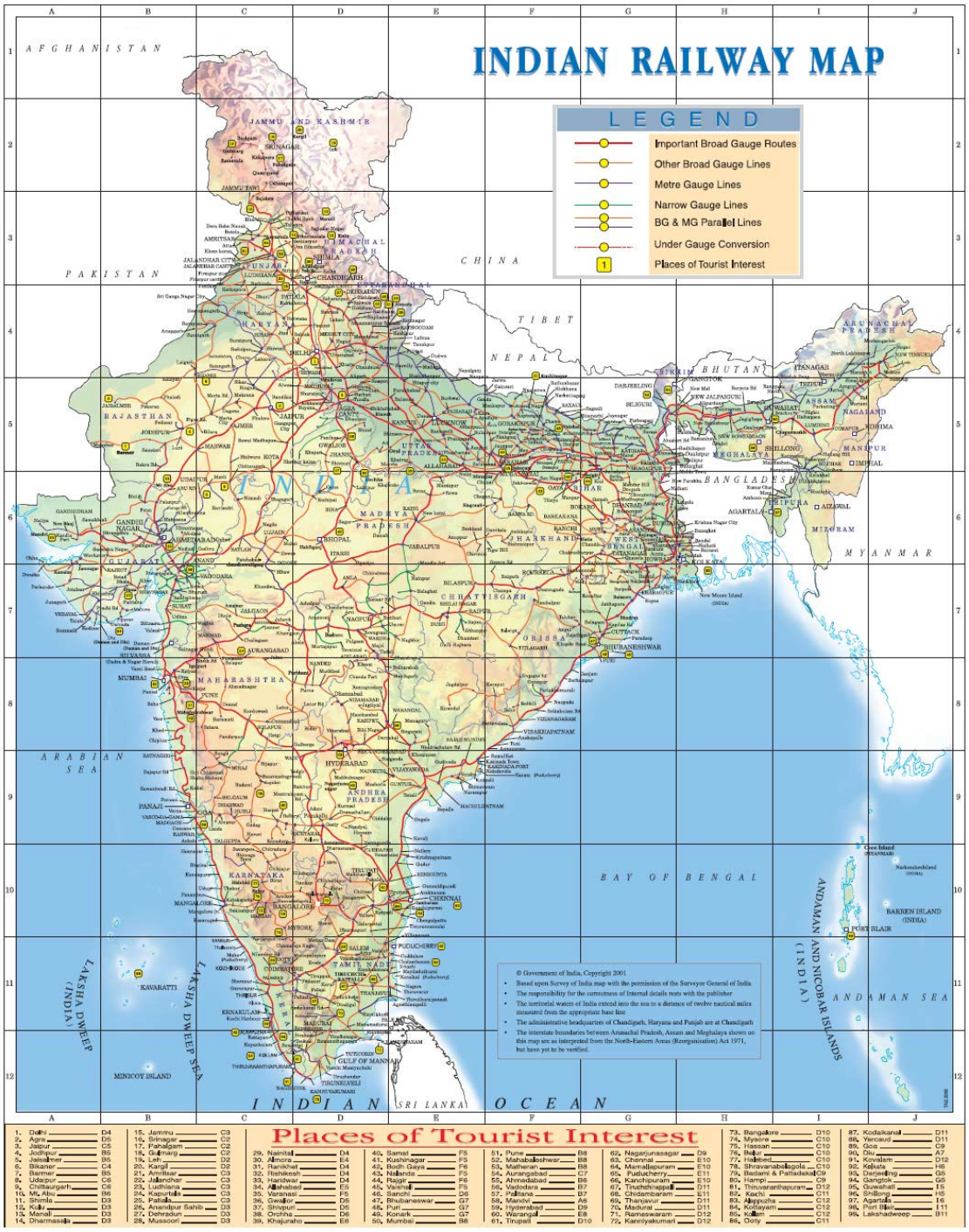


Figure 2.44 Railway Network in India (Source; Indian Railways)

Railway Facilities (Indian Railway Year Book 2007-2008)

- Line length: 63,237 km
- Number of locomotives: 8,330
- Number of coaches: 47,375
- Number of wagons: 204,304
- Number of stations: 7,025

Railway Transport (Indian Railway Year Book 2007-2008)

- Passengers: 6,525 million
- Passenger-Km: 769,956 million
- Tonnage: 734 million
- Ton-Km: 521,993 million

Management Indicator (Indian Railway Year Book 2007-2008)

- Number of Staff: 1,394,500
- Revenue: 717,200 million Rupees
- Expenditures: 544,622 million Rupees

2.1.7.2 Kazakhstan

(1) Present Conditions and Issues on Road Transport in Kazakhstan

A. Present Conditions of International Truck Road Network in Kazakhstan

Kazakhstan is a vast land which is 7 times lager than that of Japan. Kazakhstan is also identified as the important relay point between Europe and China from the geographical view point, therefore, the development of the road network in Kazakhstan affects the international transport system in the region.

Kazakhstan produces plenty of mineral resources such as oil, coal, chrome, silver, tungsten, lead and zinc. Moreover, the country has active agriculture and livestock farming industries. Those products and industries require reliable transport modes and the road and railway modes in Kazakhstan have been taking important rolls as they are expected.

The road network in Kazakhstan has been developed in connection with neighboring countries such as Russia, Kyrgyz, Uzbekistan and Turkmenistan. A.H.5, 6 and 7 are identified as major international trunk road sections in the country. In addition, the A.H. road numbers with two digit numbers are organized as the regional road network. A.H 5 connects between Khorgos, the China border, and Zhibek Zholy, the Uzbekistan border, via Almaty, Merke, and Symkent. A.H.6 is the road route which is generally across south Russia but the section between Karakuga and Chistoe passes in Kazakhstan for about 90km. A.H 7 starts from south in the country and branches from A.H.5 at Merke and goes north via Burybaital, Balkhash, Karaganda, Astana, Zhaksy and Kustanai, and reaches Kaerak, and the Russian border eventually. A.H.7 crosses with A.H.6 in Russia as well.

Table 2.12 International Trunk Roads in Kazakhstan

Route No.	Itinerary	Length (km)	Selection Criteria
AH5	Khogors (border of China) – Koktal – Almaty – Kordai (border of Kyrgyz)	557	*Connection between Capitals *Connection between Industrial/Agricultural Centers
	Merke (boder of Kyrgyz) – Shymkent – Zhibek Zholy (border of Uzbekistan)	474	*Connection between Cargo Terminals
AH6	Karakuga (border of Russia) – Petroparlovsk – Chisote (border of Russia)	190	*Connection between Capitals *Connection between Industrial/Agricultural Centers *Connection between Cargo Terminals
AH7	Kaerak (border of Russia) – Kostanai – Ruzayevka – Zhaksy – Astana – Karaganda – Burubaital – Merke	1,981	*Connection between Capitals *Connection between Industrial/Agricultural Centers *Connection between Cargo Terminals
AH60	Pnirtyshshkoe (border of Russia) – Pavlodar – Semipalatinsk – Taskesken – Ucharal – Saryozek – Almaty – Burubaital	1,928	*Connection between Industrial/Agricultural Centers *Connection between Cargo Terminals
AH61	Kordai – Merke	150	*Connection between Industrial/Agricultural Centers
	Shymkent – Aralsk – Karabutak – Ural'sk – Kamenka (border of Russia)	2,062	*Connection between Cargo Terminals
AH62	Petropavlovsk – Zhezkazgan – Kyzylorda	1,363	*Connection between Industrial/Agricultural Centers
AH63	Pogodaevo (border of Russia) – Ural'sk – Atyrau – Dossor – Beyneu – Border of Uzbekistan	1,052	*Connection between Industrial/Agricultural Centers *Connection between Cargo Terminals
AH64	Krasny Aul (border of Russia)– Semipalatinsk	111	*Connection between Industrial/Agricultural Centers
	Pavlodar – Shiderty – Astana – Kokshetau – Petropavlovsk	887	
AH67	Bakhty – Taskesken	187	*Connection between Industrial/Agricultural Centers
	Shiderty – Karaganda – Zhezkazgan	753	
AH68	Dostyk (border of China) – Ucharal	184	*Connection between Industrial/Agricultural Centers
AH70	Kotyaevka (border of Russia) – Atyrau	277	*Connection between Industrial/Agricultural Centers
	Beyneu – Zhetybai – Aktau – Zhanaozen – Border of Turkmenistan	700	*Connection between major Ports
Total (11 Routes)		12,856	

Source: Asian Highway Database 2009, UN ESCAP

B. Present Asian Highway Network in Kazakhstan

In Kazakhstan, there are A.H. roads with various classes from Primary to Class III. Generally, the class of roads are either Class II or III except the Class I road near the old capital Almaty. The followings are explanations of the current situation of A.H. in the country.

- As for A.H.5, the road section between Khorgos and Almaty has either dual carriageway or single carriageway and classification depends on the sections which are also either Class II or III. The section between Almaty and Merke is also the same as the above. The section between Merke and Symkent generally has a single carriageway and its class is varied either Class II or III.

- As for A.H.7, the road section between Merke~Burybaital in the south of the country is classified as Class III and the section between Burybaital and Karaganda is Class II. The section between Karaganda and Astana is Class II (partially Class I) and the section between Astana and the Russian border is either Class II or III.

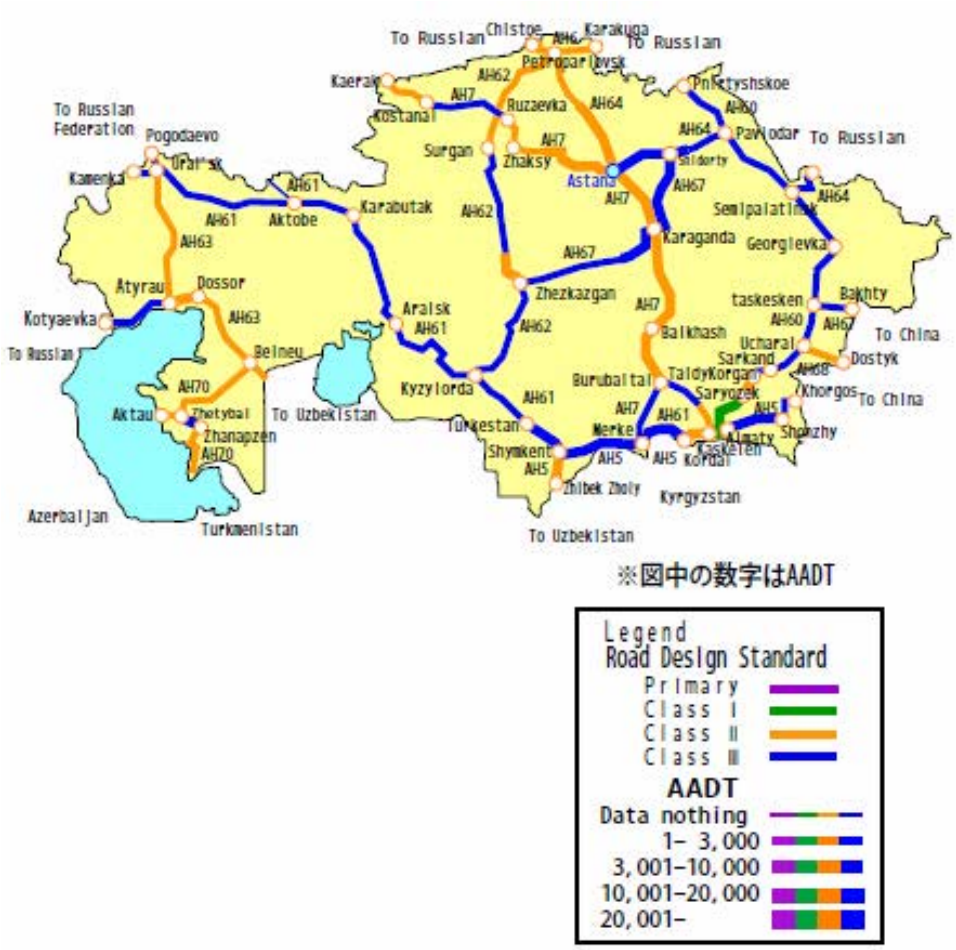


Figure 2.45 A.H. Road Network in Kazakhstan

C. Issues

The greatest issue of the road sector in Kazakhstan is also insufficient road maintenance. Most of the network was constructed during the era of the Soviet Union and almost half of the roads are considered to require drastic rehabilitation works. Regarding the trunk roads across the country, large scale rehabilitation work such as widening to dual carriageway has been carried out since the traffic volume increased rapidly. However, the road sections in rural areas are not focused on for such rehabilitation because the contribution to economic development is considered to be slight. Hence, there is a huge gap in terms of development level between urban and rural areas that creates gaps in living standards between the areas.

(2) Present Situation and Issues on Railway Sector

Railways in Kazakhstan are developed, operated and managed by a Joint Stock Company of Kazakhstan Temir Zholy (KTZ), established in 1894. There are 22 joint stock companies for railway related projects; KTZ takes a leading position in these companies. The gauge is 1,520 mm, total length is 13,579 Km and 3,811 Km of it is electrified, 4,706 Km is double- tracked. Major articles of the freight transport are the Kazakhstani staples of petroleum, minerals and agricultural products.

Figure 2.46 Railway Network in Kazakhstan (Source; Kazakhstan Temir Zholy)

Railway Facilities (2007-2008)

- Line length: 14,000 km
- Number of locomotives: 1,500
- Number of coaches: 1,700
- Number of wagons: 44,000
- Number of stations: 700

Railway Transport (2007, source; KTZ)

- Passenger-Km: 14,000 million
- Tonnage: 261 million
- Ton-Km: 200,752 million

Management Indicator (Year Book 2007-2008)

- Revenue : 431,000 million Tenges
- Expenditure : 417,000 million Tenges

Astana Railway Station

Double Track

Cargo Vehicle Transportation

Source; Kazakhstan Temir Zholy

The Kazakhstani railway network is connected to the neighboring countries of Russia, China, Uzbekistan, Turkmenistan, and the Caspian coastal countries of Azerbaijan and Iran. Therefore, there are international transportations between the above countries. The Kazakhstani railway network is positioned as the hub of the North-South and East-West transportation corridors. Recently KTZ has emphasised on introducing IT technology to the railway system such as ticketing, freight tracking system, etc., to meet customer's requirements, hence, it contributes to increasing transport and revenue.

- Central Asian Corridor: Sary~Agach~Arys~Kandyagash~Ozinki
  The corridor passing North-South through western Kazakhstan. UNECAP recognizes this route as the most important corridor connecting central Asia and Europe.
- Western Corridor: Aksaraiskaya II~Makat~Beineu~Aktau
  This route passes through the oil-producing region and is used for oil transportation.
- Central Corridor: Dostyk~Aktogai~Almaty~Arys~Sary~gach
  This route is designated as a major international corridor by TRACECA and UNESCAP.
- Northern Corridor: Dostyk~Petropavlovsk, Dostyk~Tobol

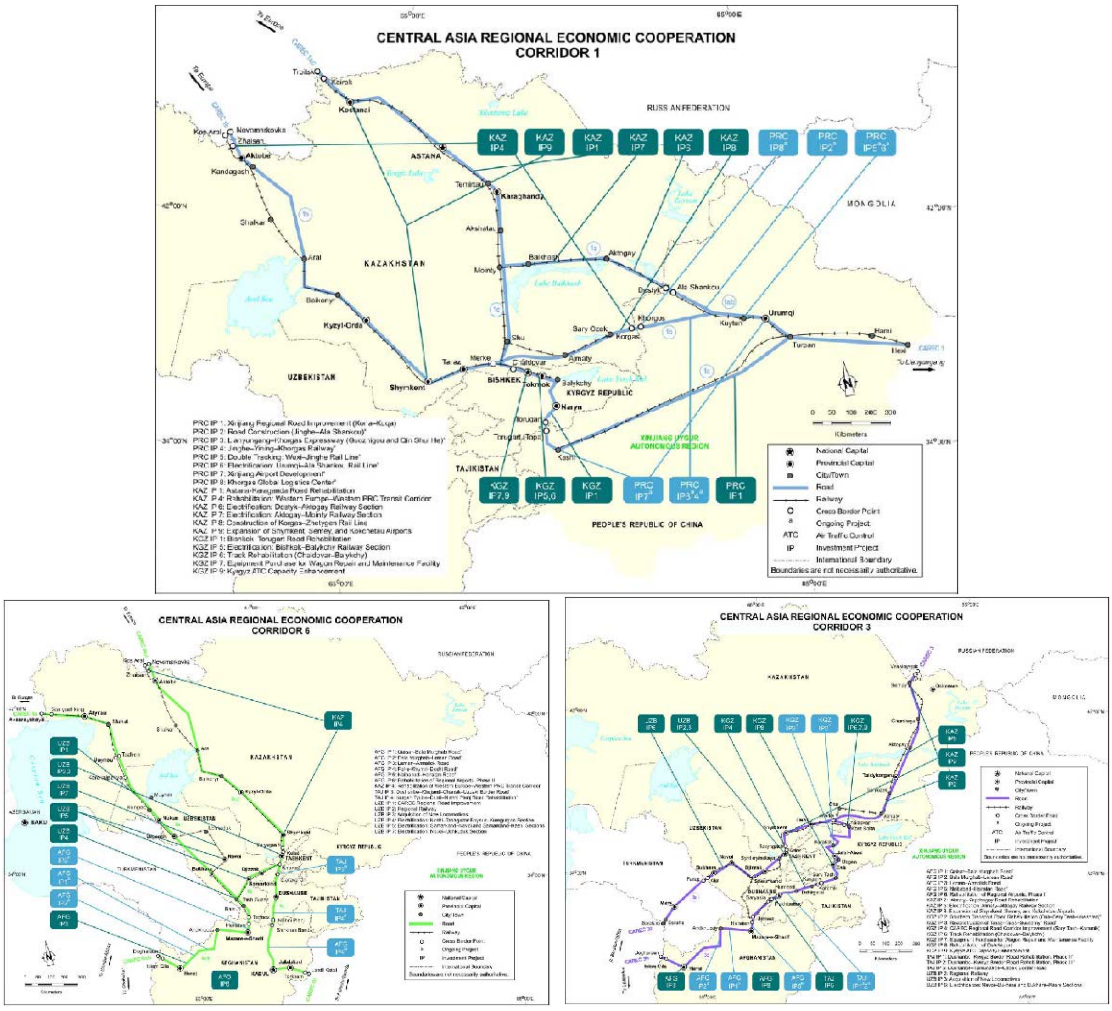


Figure 2.47 Three CAREC Corridor via Kazakhstani Railway Network

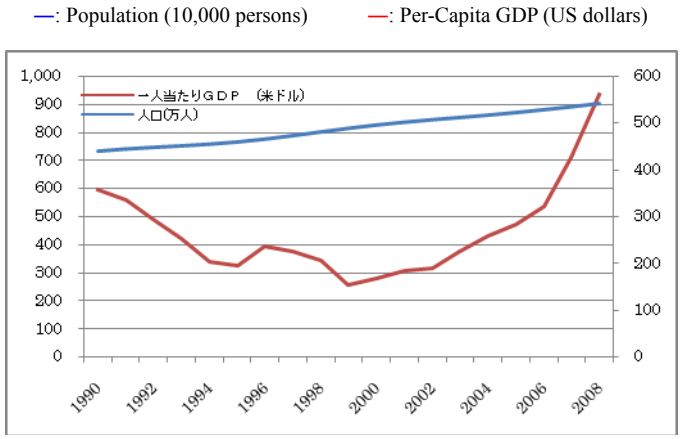
Rail freight tonnage in year 2007 was 261 million tons, increasing 5 to 11 % in the past five years. Compared to the year 2006, there was a total of 5.5 % of growth. Most significantly, the amount of grain transported increased 56 %. Further, export freight growth was 33 %, import freight was 9 %, domestic transport was 54 %, international passage freight was 5 %. Furthermore, the modal share of the railway was 57% and passenger traffic is also satisfactorily increasing. Gross annual profit was 94 million dollars in 2007.

2.1.7.3 Kyrgyz

(1) The Current Status and Issues of the Industry and the Economy

Kyrgyz has no border with Afghanistan but has close relations with it as a neighbouring country.

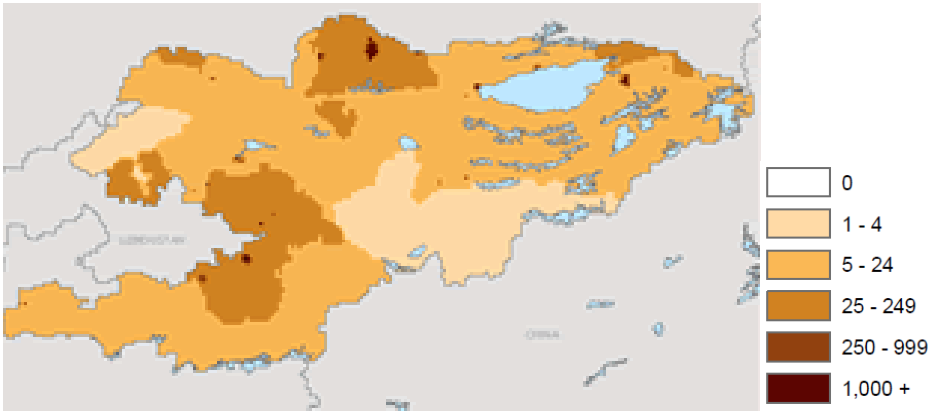
Figure 2.48 shows the changes in population. The dollar-denominated per capita GDP declined from 1990 but increased in and after 2000.



Source: United Nations Statistics Division

Figure 2.48 Population and Per-Capita GDP in Kyrgyz (left axis: population, right axis: Per-Capita GDP)

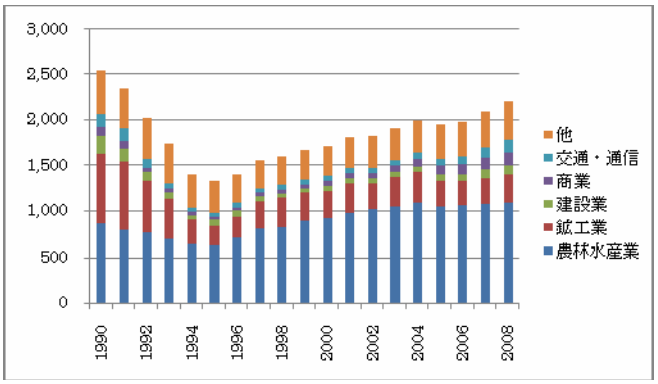
The population in Kyrgyz is relatively dispersed. The population density is high in the surroundings of the capital Bishkek, but low in the south.



Source: Columbia University Socioeconomic Data and Application Center

Figure 2.49 Population Distribution in Kyrgyz

Figure 2.50 shows, according to the United Nations Statistics, the shares of industries based on the prices in 1990 and local currency denomination. Major industry in Kyrgyz includes agriculture, forestry and fisheries, and their share increased between the 1990s and the first half of the 2000s. The share of agriculture, forestry and fisheries was about 50% as of 2008.



Legend: Other, Transport & Communication, Construction, Commerce, Agriculture, Forestry, Fishery, Mining & Manufacturing

Source: United Nations Statistics Division

Figure 2.50 GDP and its Breakdown in Kyrgyz (Prices in 1990; Million som)

(2) Present Conditions and Issues on Road Transport in Kyrgyz

A. Present Conditions of International Trunk Road Network in Kyrgyz

The international trunk road network in Kyrgyzstan is composed of road sections connecting to neighboring countries such as China, Kazakhstan, Tajikistan and Uzbekistan. Kyrgyz also has an important role; it is the relay point between China and Central Asian countries in terms of cargo transport.

Kyrgyz is a mountainous country with about 90% of its land higher than the altitude of 1,500m. Kyrgyz produces various agriculture products such as cotton. Moreover, Kyrgyz produces plenty of mineral resources, and industries related to mineral resources are also active. Therefore, effective goods transport requires sufficient road network length and better maintenance.

Major international trunk roads are A.H.7 and A.H.61, which connect the capital Bishkek and many domestic areas at the east side and west side of the country respectively and the north and south.

Table 2.13 International Trunk Roads in Kyrgyz

Route No.	Itinerary	Length (km)	Selection Criteria
AH5	Georgievka (border of Kazakhstan) – Bishkek – Kara Balta – Chaldovar (border of Kazakhstan)	126	*Connection between Capitals *Connection between Industrial/Agricultural Centers *Connection between Cargo Terminals
AH7	Kara-Balty – Kara-Kul – Dzhalal-Abad – Uzgen – Osh – Border of Uzbekistan	626	*Connection between Capitals *Connection between Industrial/Agricultural Centers *Connection between Cargo Terminals
AH61	Torougart Pass (border of China) – Naryn – Issyk-Kul – Bishkek	539	*Connection between Industrial/Agricultural Centers
AH65	Irkeshtam (border of China) – Sary Tash – Osh	262	*Connection between Industrial/Agricultural Centers
	Sary Tash – Karamyk (border of Tajikistan)	142	
Total (4 Routes)		1,695	

Source: Asian Highway Database 2009, UN ESCAP

B. Present Asian Highway Network in Kyrgyz

In Kyrgyz, there are A.H. roads with various classes from Class I to III that are explained as follows,

- The only road section identified as Class I is between the capital, Bishkek and Kara Balta, and other sections are classified as Class II or III or less than III.
- Most of the section on A.H. 5 is classified as Class II.
- Most of the section on A.H. 7 is classified as Class II except for some Class III.
- The road section on A.H.61 between Bishkek and Naryn is classified as Class II and its southern section to the China border is classified as Class III.
- The road section of A.H.65 to Sary Tash via Kara Balta and Osh is Class II and its continuation to the China border is class III.

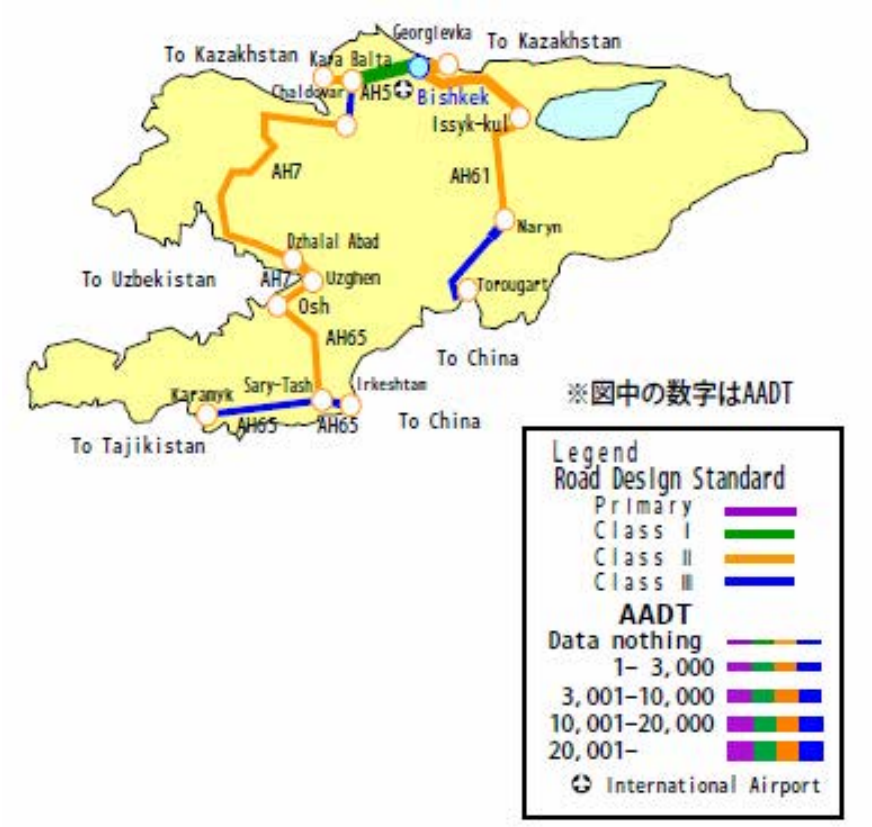


Figure 2.51 A.H. Road Network in Kyrgyz

C. Issues

The road network of Kyrgyz is developed from capital Bishkek as the center by A.H.7 as well as A.H.61. They take the most important role in terms of the road transport. In addition to those two road sections, with background of the prosperity of Chinese industries, A.H.65, recently became one of the important trunk roads since it connects with China and Tajikistan. Hence, there are many investments along the section by China.

The existing road network satisfies the traffic demand and there is little traffic congestion in the country. However, due to the steep mountainous geographical features, there are many natural disasters such as landslides that sometimes make the road impassable. However, the countermeasures to natural disasters have not been implemented because huge budget and advanced technology are required.

In Kyrgyz, it has been considered that a 100km of road network is being lost every year because of insufficient road maintenance, therefore, the road O&M is the major issue in the transport sector. The road O&M is mandated on the Ministry of Transport and Communication and the Ministry carries out direct operation of the national roads' maintenance since the private sector is not well developed. A Road Fund has been established but it is under the administration of the Ministry of Finance. Therefore, the fund sometimes is used for other purposes than road development / maintenance.

(3) Present Situation and Issues on the Railway Sector

Once a part of the former Soviet Union, the railways in Kyrgys were constructed under that regime. The total length is 425 Km, the gauge is 1,520 mm. Railway bears 42 % of freight transport, 854 million ton- Km in 2007. The annual growth of freight transport is approximately 20 %, the growth of railway transportation is more than 50 %. However, it is only 32 % of the amount in 1990 before the collapse of the former Soviet Union.

Figure 2.52 Railway Network in Kyrgyz (Source; United Nations)

There are the following four major lines in Kyrgyz.

- Balykchy~Bishkek~Lugovoe (further to Kazakhstan and Russia)
- Osh~Jalal~Abad
- Kok~Yangak~Kara-Suu
- Kyzyl~Kiya~Tash-Kumyr (to Uzbekistan, Turkmenistan and Persian Gulf countries)

The Southern corridor, Osh~Jalal~Abad~Kok~Yangak, 323 Km in length, is designated as the branch line of the Trans Asian Railway. The Northern corridor, Balykchy~Bishkek~Lugovoe, 101 Km in length connects to Russia via Kazakhstan and Uzbekistan. These routes are part of the first CAREC corridor. There are no connection routes between the Northern and Southern corridors. It is adequately operated in the present track maintenance conditions due to light traffic.

Figure 2.53 CAREC Corridors via Kyrgyz Railway Network (Source; ADB)

Once, a part of the former Soviet Union, 2,500 wagons, 450 coaches and 50 locomotives were allocated to the Kyrgys Railway. In the present, most of the facilities have been superannuated due to lack of renewal. The collapse of the Soviet Union resulted in a sharp drop of the amount of transportation, the situation have been made worse due to the financial crisis in 1998. Railway freight ton-Km was 330 million in 2001, which is only 13 % of 1990. Passenger-Km was 50 million; this is 25 % of the 1990's. On the other hand, income and expenditure produced a 1.5 million U.S. dollar surplus due to a 20 % reduction of staffs and reduction of number of operations. The surplus of freight transport bears the deficit of passenger transport, and no financial support is taken from the government.

2.1.8 Assistance to the Broader Area Network for Afghanistan and the Surrounding Countries

2.1.8.1 Asian Development Bank

(1) CAREC

CAREC is the program which was established with the intention that it applies for the area mainly supported by ADB in 1997. It assists development of infrastructure for transportation and trade in Afghanistan, China, Kazakhstan, Kyrgyz, Mongolia, Tajikistan, Uzbekistan, etc., which are land-locked countries. It was intended for the modes of road, railway, aviation and ports. The main theme for development of trade infrastructure is reforming and modernization of custom clearance, integration of trade facilitation and development of regional logistics.

CAREC published the "Transport and Trade Strategy 2008-2017" in 2007, the "Sector Report for Current Transportation" in November 2007 and the "Action Plan for Facilitation Development of Transport and Trade" in November 2008. The scale of investment for the action plan is US$21.1billion for implementation projects, and US$6.85billion for technical assistance. "Transport and Trade Strategy 2008-2017" holds up 3 targets and designated 6 important corridors by 5 evaluation standards.

Table 2.14 3 Targets in CAREC

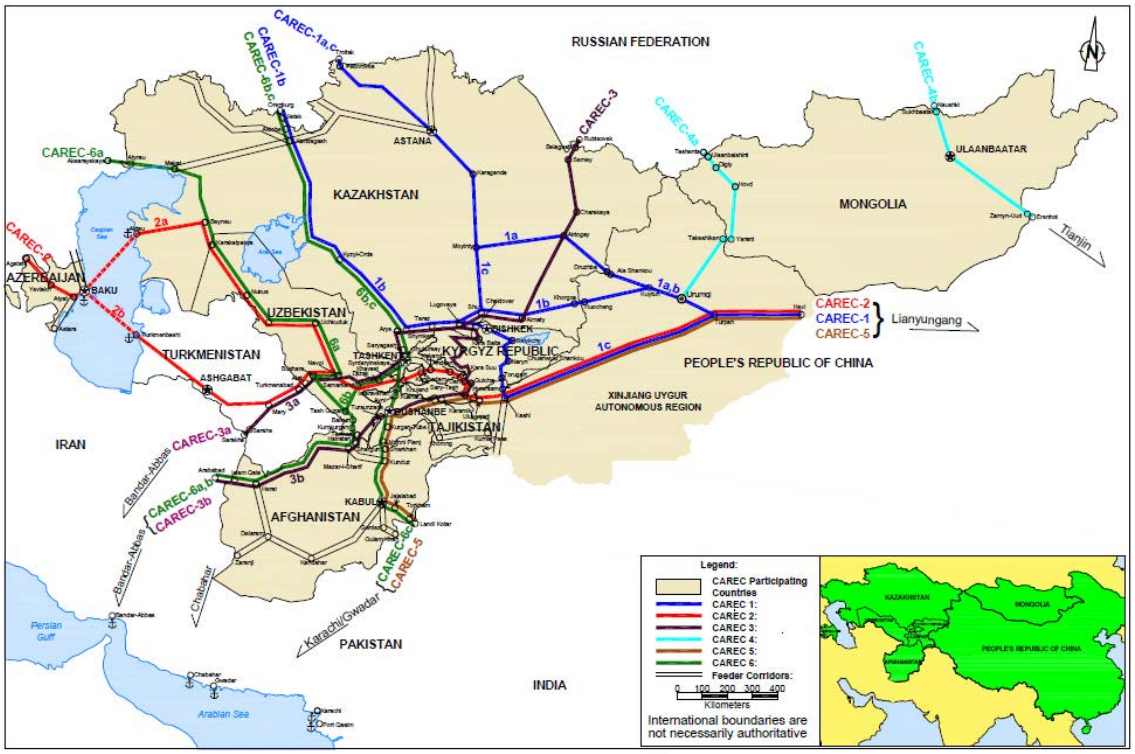
・ Establish competitive corridors within CAREC area
・ Infrastructure development for people and goods to transport effectively through CAREC corridors
・ Development of transport and trade network which is sustainable, safe and smooth for people

Source: CAREC Transport and Trade Facilitation Strategy 2008-2017

Table 2.15 5 Evaluation Standards

・ Current traffic volume
・ Estimated increment of economy and traffic volume
・ Capacity of improvement of connectivity between centers of economy and population within the area
・ Probability of easing obstacles such as delays, number of border crossings, change of gauge, etc.
・ Financial sustainability, management and technical progress of infrastructure

Source: CAREC Transport and Trade Facilitation Strategy 2008-2017



Source: CAREC Transport and Trade Facilitation Strategy 2008-2017

Figure 2.54 6 Important Corridors

According to the Implementation Action Plan, the following important items are designated placing the projects in 5 years from 2008 to 2017.

Table 2.16 Important Items for Implementation Action Plan

・ Roads of 24,000km, railway of 20,000km and 28 border crossing points along CAREC corridors
・ 2 ports (Aktau port in Kazakhstan, Baku port in Azerbaijan) and sea-lane（Aktau⇔Baku 400km）
・ 41 airports which can provide international services

Source: CAREC Implementation Action Plan

The Implementation Action Plan carries out progress control for projects and technical assistance with evaluation after ordering priority by targets and investment. The targets as the standard for evaluation are shown in Table 2.17.

Table 2.17 Targets of Implementation Action Plan

- Improvement of CAREC corridors as 75% in 2012 and 100% in 2017 comparing with 64% of year 2007
- Increase the volume of trade with EU and east Asia from 1% (34million ton) in 2005 to 2% in 2012 and 5% in 2017
- Increase the volume of trade within the area from 32million ton (2005) to 25% more in 2012 and 50% more in 2017
- Decrease the necessary time for border crossing along the CAREC corridors 12% less (2012) and 30% less (2017) than year 2007
- Activate the function of committee for trade infrastructure development to manage the inland transportation and CAREC corridors by year 2012

Source: CAREC Implementation Action Plan

A total of 62 investment projects (US$21.1billion) were nominated in the implementation plan; 40 projects (US$15.8billion) are new projects and 22 projects are continuous projects. Technical assistance (TA) is US$68.5million.

Table 2.18 Scale of Investment and TA Projects

		Investment			TA		
		New	Continuous	Total	New	Continuous	Total
Project Amount	Road	10.3	2.5	12.8	10.3	1.8	12.1
	Railway	4.3	1.4	5.7	6.8	0.0	6.8
	Airport, Aviation	0.5	0.4	0.9	11.6	0.5	12.1
	Port, Shipping	0.1	0.4	0.5	2.0	0.0	2.0
	Physical Distribution	0.4	0.1	0.5	7.2	1.1	8.3
	Develop Trade	0.2	0.5	0.7	25.5	1.7	27.2
	Total	15.8	5.3	21.1	63.4	5.1	68.5
Nos. of Projects	Road	12	13	25	12	2	14
	Railway	15	3	18	10	0	10
	Airport, Aviation	6	1	7	4	1	5
	Port, Shipping	1	1	2	2	0	2
	Physical Distribution	4	1	5	8	2	10
	Develop Trade	2	3	5	23	1	24
	Total	40	22	62	59	6	65

Source: CAREC Implementation Action Plan

(2) Assistance Projects by ADB

ADB actively implements the assistance projects for Afghanistan and the surrounding countries regarding development of broader corridors in and out of CAREC. Table 2.19 shows the assistance projects for development of broader corridors around Afghanistan.

Table 2.19 Assistance Projects for Development of Broader Corridors around Afghanistan (1)

Activities	Objective/Purpose/Output	Status
1. TA4536 Cross Border Trade and Transport Facilitation (Afghanistan) (Cross-border infrastructure)	*Objective :* Growth and poverty reduction *Purpose :* Smooth movement of goods across borders by developing border facilities and promoting border cooperation *Output :* ・A long-term perspective plan for infrastructure investment options to improve transit of goods, ・Amended/new customs and border procedures (laws, rules and regulations), ・Amended/new bilateral, trilateral and multilateral agreements, ・Individual arrangements rationalized and strengthened by ministries and agencies for facilitating movement of goods, vehicles and people (including possible introduction of TIR Carnet arrangement or a simpler system allowing vehicles to cross border automatically), ・A framework for private sector participation in cross border trade transit, ・Integrated development alternatives for each corridor including railways network into Afghanistan, ・Cost (O&M and debt services) recovery measures (toll, fuel tax, transport fee), and ・Economic and financial feasibility/impact of investments in cross-border facilities	Inception Report was prepared and submitted to the Government of Afghanistan in August 2005. Interim Report was prepared in December 2005 and submitted to the Government of Afghanistan in January 2006. Final Report was prepared in May 2006 and presented to the Government in June 2006.
2. Corridor Development Plan (CDP)-CSATTF (Infrastructure and policies and institutions)	*Objective :* Promote economic growth through trade expansion *Purpose :* Remove physical, institutional and political impediments to the growth of trade *Output :* ・Infrastructure investments ・Strengthening trade-related institutions ・Harmonizing transport, trade, tariff, policies, standards and regulatory frameworks in conformity with international regulations	Elements are being worked on through initiatives by CSATTF and participating countries for infrastructure development, customs cooperation and transit system arrangement.
3. TA CDP Customs - CSATTF(Customs)	*Objective :* Promote economic growth through trade expansion *Purpose :* Facilitate movement of goods across the border *Output :* ・Development of corridor transit systems – customs transit guarantee and simplified transit systems such as ECO Single Transit Pass ・Simplification and harmonization of customs procedures and documentation ・Development of border posts and facilities ・Data and information sharing and information and communication technology (ICT) development for customs operation ・Application of modern customs automation techniques In this context, CAREC is looking into; ・Capacity building ・Development of risk management and post-entry audit ・Development of regional intelligence system	Under the umbrella of the CSATTF work on various components is underway on corridor transit systems and customs harmonization. WB, EC and US have been supporting development of border posts and facilities (see below) as well as ICT and automation (e.g. ASYCUDA in Afghanistan)
4. Transit study – CSATTF (Transit)	*Objective :* Facilitate cross-border trade *Purpose :* (i) Assist TISA to revise/update the existing transit trade agreements and to develop new agreements with the neighbouring countries as appropriate; (ii) To prepare a report on regional transit trade facilitation measures *Output :* ・Proposals to overcome constraints to cross-border trade ・Propose simplified transit system compatible with ECO's Ttransit Trade Agreement and Transit Transport Framework Agreement ・National action plans for efficient regional transit arrangement ・Revised and new transit agreements between Afghanistan and neighbouring countries	Not initiated yet. It will be synchronized with TA4356 Cross Border Trade and Transport Facilitation.

Source: Afghanistan; Cross Border Trade and Transport Facilitation, ADB

Table 2.19 Assistance Projects for Development of Broader Corridors around Afghanistan (2)

Activities	Objective/Purpose/Output	Status
5. TA4221 Cross Border Facilities and Efficient Transit Facilitation (Pakistan) (Transit)	*Objective :* Promote cross-border trade *Purpose:* Facilitate movement of goods, trucks and related personnel *Output :* ・Legal and institutional framework for cross border and transit movement (1965 Agreement) ・Recent Pakistan facilitation experiences and comparison with "best practice" ・Short and long-term concepts for Chaman border crossing station ・Short-term operational plan ・Long-term physical and organizational plan ・Environmental and social resettlement issues	Consultants hired. Inception and Inception reports have been prepared and submitted to the Government. Draft Final report is currently under review.
6. Cross border infrastructure development, a component of the Pakistan Subregional Connectivity and Trade Facilitation Project (Pakistan) (Transit infrastructure)	*Objective :* Support regional cooperation by improving physical, institutional and other barriers *Purpose:* Improve road sector efficiency *Output :* ・Cross border agreements for road transport including movement of containers ・Cross border civil works ・Feasibility study for establishing a Trade Facilitation and Land Border Crossing Authority	Project under processing for expected approval in September 2005
7. Regional business roundtable (Public-private partnership)	*Objective :* Promote private sector participation in cross border trade, transport andother facilities	Conducted in Bishkek in October 2005.
8. National Action Plan (NAP) (Participating countries with ADB assistance) (Action Plan)	*Objective :* Promote regional trade *Purpose :* Facilitate cross border movement of goods *Output :* ・Infrastructure development plan ・Trade and transport facilitation measures ・Establishment of National Trade and Transport Facilitation Committee (NTTFC) with ADB/UNCTAD ・Accession to international trade and transport convention	Under way. Countries are taking steps to establish National Transport and Trade Facilitation Committee (NTTFC) and also for accession to international conventions, if they have not already done so.
9. ADB with Japan (JFPR) Emergency Infrastructure Rehabilitation and Reconstruction Project (Afghanistan) (Infrastructure)	*Objective :* Revive economic activities across the country *Purpose :* Rehabilitate and reconstruct key infrastructure in transport and energy sectors *Output :* ・Road infrastructure ・Gas infrastructure ・Electric power infrastructure	Rehabilitation under way.
10. Andhkhoy-Qaisar Road Project (Afrghanistan) (Infrastructure)	*Objective :* Promote economic growth through improved roads and links to neighbouring countries *Purpose :* Reconstruct part of the ring road to improve access to Turkmenistan *Output :* ・200km of the road constructed ・Provision for road tolling facility	Project approved in December 2004.
11. Balochistan Road Development Sector Development Project (Pakistan) (Infrastructure)	*Objective :* Promote economic growth of an underdeveloped region in Pakistan *Purpose :* Improvement of national highway, provincial access roads and cross border movement of goods *Output :* ・1100km of provincial access roads upgraded ・247km of national highway upgraded easing access to Afghanistan through Chaman	Under implementation

Source: Afghanistan; Cross Border Trade and Transport Facilitation, ADB

Table 2.19 Assistance Projects for Development of Broader Corridors around Afghanistan (3)

Activities	Objective/Purpose/Output	Status
13. Northwest Frontier Province Road Development Sector and Subregional Connectivity (Pakistan) (Infrastructure)	*Objective :* Promote economic activities and cross border trade *Purpose :* Improve road infrastructure and access to border with Afghanistan *Output :* ・Construction of 334km of improved national highway easing access to Afghanistan through Torkham and Ghulam Khan ・Border crossing infrastructure at Torkham and Ghulam Khan ・Capacity building ・Improved road safety ・Improved asset management	Under implementation
14. Qaisar - Bala Murghab Road Project (Afghanistan) (Infrastructure)	*Objective :* Promote economic growth through improved roads and links to neighboring countries *Purpose :* Reconstruct part of the ring road to improve access to Turkmenistan *Output :* ・90km of ring road constructed	Project approved in September 2005
15. TA4371 Master Plan for Road Network Improvement Project (Afrghanistan) (Infrastructure)	*Objective :* Assist TISA to define a road network development strategy and program for 2006-2015 periods and estimate the financing requirements for investment and sustainable operation and maintenance. *Purpose :* Define the most efficient road network within a multi-modal transport network, giving due consideration to a railway option on some routes *Output :* ・Road sector master plan ・Road network and traffic database ・Computerized road network model	Draft Final Report in September 2005
16. TA Capacity Building for Road Sector Institutions (Afghanistan) (Infrastructure)	*Objective and purpose:* Strengthen Ministry of Public Works, undertake road sector reform and coordinate funding agencies	Under processing
17. TA SubregionalEconomic Cooperation in South and Central Asia (CSATTF) (Infrastructure)	*Objective and Purpose:* Assist implementation of Corridor Development Plan-Customs and develop other components of CDP *Output:* ・Public-private partnership ・National coordination ・Dialogue among stakeholders ・Studies and papers ・National Trade and Transport Facilitation Committee (NTTFC)	Under processing
18. Regional Trade Facilitation and Customs Cooperation Program + three regional Tas (Kyrgyzstan and Tajikistan) (Trade/Customs)	*Objective and purpose :* Integrate transition economies into world trading system *Output :* ・Regional framework with cooperation mechanism ・Reformed and modernized customs organizations ・Strengthened legal and regulatory framework in conformity with international standards	Under implementation
19. Regional Customs Modernization and Infrastructure Development Project (Kyrgyzstan and Tajikistan) + TA to Tajikistan on Infrastructure and Customs (Infrastructure and Customs)	*Objective and purpose :* Transition economies into world trading system *Output :* ・Regional framework with cooperation mechanism ・Reformed and modernized customs organization ・Strengthened legal and regulatory framework in conformity with international standards ・ICT system ・Border infrastructure ・Reduced smuggling due to anti-smuggling equipment and support	Under processing

Source: Afghanistan; Cross Border Trade and Transport Facilitation, ADB

Table 2.19 Assistance Projects for Development of Broader Corridors around Afghanistan (4)

Activities	Objective/Purpose/Output	Status
20. Regional Railways Development Project (Uzbekistan) (Transport)	*Objective and purpose :* Improve sector efficiency and reform to attain market-based operations	Under processing
21. TA Harmonization of Cross Border Initiatives for transport sector in Central Asia (AZE/KAZ/KGZ/TAJ/UZB/TKM/PRC) (Infrastructure)	*Objective :* Promote goods movement and trade *Purpose :* Evaluate facilities at each border operation *Output :* ・Common minimum standard for border facilities ・Identification of necessary changes in legislation and cross border procedures ・Investment required for minimum standard	TBD
22. Road Rehabilitation Project (Tajikistan) (Infrastructure)	*Objective :* Promote economic growth by improving flow of goods and people *Purpose*: Rehabilitate part of national highway *Output :* ・Rehabilitate 50% of the 190km section of Dushanbe to Nizhni Pyanzh ・Upgrade border facility	Rehabilitation almost complete
23. ADB with JBIC Rehabilitation of Surab-Pnjgur Road (Pakistan) (Infrastructure)	*Objective :* Promote economic growth by improving flow of goods and people *Purpose :* Rehabilitate part of national highway *Output :* ・Rehabilitation of the Surab-Pnjgur Road facilitating approach to the Gwador port	Under implementation

Source: Afghanistan: Cross Border Trade and Transport Facilitation, ADB

2.1.8.2 World Bank

Table 2.20 shows activities, objectives, purpose, output and status of assistance projects for development of broader corridors around Afghanistan by the World Bank.

Table 2.20 Assistance for Development of Corridors around Afghanistan by the World Bank (1)

Activities	Objective/Purpose/Output	Status
World Bank Emergency Customs Modernization and Trade Facilitation Project (Afghanistan) (Infrastructure and customs)	*Objective :* Facilitate cross border trade and transport and data entry and exchangeautomation *Purpose :* Increasing customs revenue collection, improving clearance time, and establishing customs tariffs, exchange rates, and valuation in line with internationally accepted practices *Output :* Components implemented directly by UNOPS ・Rehabilitate and modernize Revenue and Customs Headquarters Offices for Ministry of Finance (MOF) with provision for key services ・Rehabilitate and modernize specific areas of Ministry of Commerce (MOC) with provision of key services ・Refurbish office space within current Kabul ICD to provide infrastructure for training and management of the Afghan Customs Department (ACD) ASYCUDA Project ・Design and construct modern headquarters offices for Customs and Revenue Department of the MOF at location of the current Kabul Inland Clearance Depot (ICD) ・Design and construct a new Kabul ICD in Policharki location ・Design, build and rehabilitate existing infrastructure for control of multi-modal transport of goods at Hairatan border crossing as well the establishment of an ICD	Under implementation. According to Mid-Term review, March 2006, the status of implementation is as follows: (i) Customs reform implemented including a modern customs code but very slow progress on draft and issue of sub-legislation to implement the custom laws; (ii) With some delay infrastructure work has now commenced and progress has been reported, e.g., (a) the new Customs facility at Hairatan is ready for hand over to the Government, (b) the refurbishment of existing Customs and Revenue Headquarter areas in the Ministry of Finance is complete, (c) Phase 2 of building renovation works at MOC is complete,;

Table 2.20 Assistance for Development of Corridors around Afghanistan by World Bank (2)

Activities	Objective/Purpose/Output	Status
	・Construction and Rehabilitation at Islam Qala (left out due to border delineation dispute with Iran and US army investment) ・Rehabilitate appropriate infrastructure to house radio communication equipment as part of the development of an ACD specific communication network linking regional and headquarter offices at airport, Kabul ICD, Customs and Revenue HQ at MOF, Jalalabad Customs House, Mazare Sharif Customs House, Torkham Border Post, HeratCustoms House, Islam Qala Border Post, Kandahar, Nimroz, Heart and Torghandy and Hairatan Border Posts ・Design and build modern Customs House and ICD in Current Jalalabad location ・Support European Commission (EC) construction of a Customs House at Torkham through provision of power generators ・Design and build a new mini ICD at Torghandy to control transport of goods at border by both rail and truck ・ICT Communications Network and IT： (i) Design, install and train staff on radio telecommunication systems (VHF and HF) supplied by the project, (ii) Procure IT equipment and support staff in maintenance at ministries and customs houses ・Support the establishment of Customs Reform Unit (CURE) at MOF/ACD UNCTAD component ・Installation of Automated Systems for Customs Data (ASYCUDA) in a phased approach ultimately establishing a national network for the processing and sharing of transit and goods declaration information: (i) Staff of ACD national HR structure will be trained to implement ASYCUDA in successive pilot programs, (ii) ASYCUDA technical and structural requirements and all procurements will be incorporated into infrastructure development of transit and declaration modules ・Trade facilitation: Restructuring of the International Transit Department, working on regional and bilateral trade agreements with Pakistan and others and TIR, strengthening role of the private sector with a specific focus on freight forwarders, WHO accession, study on the railways especially regarding Hairatan railway terminal and the potential of transit with other neighboring countries ・Customs transit issues: Provide regional perspective, advice and recommendations on customstransit operations UNIDO component ・National Commission for Standards, Metrology and Quality: (i) Modification of Afghan Standards Act: Draft law is being reviewed by the Ministry of Justice and the Standards Law should be finalized by the end of July, (ii) Create an independent Afghan Standards Authority within MOC, (iii) Standards and metrology infrastructure (laboratories) will be built and equipment procured within relevant infrastructure projects and a central laboratory will be constructed in Kabul. Plans include quality study of fuels entering Afrghanistan by service providers, two mobile laboratories for metrology and fuels, test labs at ICDs for use by customs and standards, and two central laboratories at Kabul and Polytechnic Universities.	(iii) Progress made with implementation of ASYCUDA with the pilot of the transit module on the Torkham-Jalalabad-Kabul corridor under way; (iv) VHF and HF radio equipment deployed at 10 locations; (v) Customs Reform Coordination Unit (CURE) working since mid-2005; (vi) Customs Advisory Unitand Training Coordination Unit established; (vii) ACD prepared a strategy for developing customs enforcement; (viii) AFPRO established by a Presidential Decree of January 18, 2006 to act as Secretariat of NTTFC; (ix) Afghan Freight Forwarding Industry strengthened; (x) Analytical work done on ATTA; (xi) Afghan National Standards Authority (ANSA) established; and (xii) The Standards Law drafted.

Source: Afghanistan; Cross Border Trade and Transport Facilitation, ADB

2.1.8.3 Assistance to the Broader Area Network for Afghanistan and the Surrounding Countries by ECO

(1) Constituent Countries of ECO and the Action Programs

ECO succeeded the programs of the Regional Cooperation for Development (RCD) which activities were carried out from 1964 to 1979. In 1985, the ECO was established for the purpose of social economic development cooperation as a part of cooperation in East Asia by Iran, Turkey and Pakistan. After that, the Charter of ECO Izmir was adopted, and their aim and frame work of activities were agreed. After the frame work was ratified by the 3 countries, ECO was formally inaugurated in 1991. The next year, in November 1992, Islamic CIS countries Tajikistan, Kyrgyz, Kazakhstan, Uzbekistan, Turkmenistan, Azerbaijan, being formed after the collapse of the Soviet Union, along with Afghanistan, formally joined ECO. The "Almaty Outline of Transport" was adopted in October 1993; it is an agreement regarding development of regional transport network which constitutes the core of ECO. In the special summit conference in May 1997, the "10 year plan for Development of Network for Oil/Gas Pipeline and Communication/Transport" was adopted.

Establishment of enterprise with application of the ECO frame work is also active; the "ECO Trade Development Bank", "ECO Re-insurance Company", "ECO Shipping Company", "ECO Airline" and so on, were established and approved in the 3rd summit conference in 1995. Regarding transit, the "Memorandum about Smuggling and Dishonest Acts in Custom Duties" and "Transit Transport Framework Agreement (TTFA)" were signed in 1998; the "ECO Trade Cooperation Framework" and TTFA were discussed in the 6th summit conference in June 2000 and through the Baku minister-level conference in May 1999 and Tehran minister-level conference in June 2000, those were resolved and approved. There are many agreements regarding Afghanistan and surrounding countries, in which ECO plays a central role, however, some of them are evaluated as inadequate because of insufficient increase in export in the ECO region.

ECO members consist of 10 countries and their activities include various fields. ECO is not aiming at integration of governance as EU, but aiming at political coordination regarding each national development plan, priority and national interests.

ECO secretariat reports the results of foreign ministers conferences and top intention conferences to the Summit conferences. Regarding the implementation of projects, the role of related organizations is significant. Also, ECO cooperates with SAARC and so on, concluding with formal Minutes of Understanding.

(2) Assistance to Afghanistan by ECO[14]

Afghanistan is an important original member country of ECO. ECO is highly interested in rehabilitation of Afrghanistan and implementing projects for building hospitals, development of Bamiyan and rural community training centers. Also, after Minutes of Understanding, ECO through its project team and along with EU is commencing a project for measures to prevent illegal drug trafficking to be completed within 2 years.

ECO is meeting with representatives regarding Japanese assistance for Afghanistan, and ECO regards that it is meaningful to develop together with international or JICA potential. ECO considers that the traffic infrastructure for Afghanistan should be widely assisted.

The high priority sectors for ECO are traffic, trade and energy. The importance of the traffic sector is strongly expressed. A superior and eager team is implementing the project for trade and economy which is the main target for ECO. Iran is a transit country; therefore, Iran has commenced a project to secure access routes from the land-locked countries to the Arabian Sea because there are important north-south corridors and east-west corridors in Iran. Iran intends to research obstacles, benefit and realization probability through the project.

According to the ECO's evaluation, the regional political power balance has changed during the recent 10 years, the influence of Chaina and India is increasing in ECO region. The same condition is found in the transport sector; issues should be brought to the attention of China and India in addition to proper members such as Iran, Turkey and Pakistan. ECO considers that regional cooperation regarding ports is an important issue; 4~5 forums and meetings are under way. As a basic work for broader transit transport in the land-rocked countries, the needs assessment studies in the related countries are important. Also, ECO presents that detailed assistance would be prepared for transport needs in each transport corridor.

According to ECO, there are 2~3 types of approaches for trade acceleration policy, tax favourable treatment, privatization assistance, assistance for hardware such as office buildings, and separate measures for favourable treatment. ECO assists separate agreements for regional agreements for each member country; there is a method to utilize the system as tripartite conferences by ECO, IDB and UNSCAP or TTFA.

ECO proposed the implementation of workshops or training courses regarding the transport sector under the assistance of JICA. The reason is; ECO already has a set-up workshop for capacity building with the World Bank joined by IDB, and Japan is highly expected regarding new assistance. There is merit in joint implementation by Iran and Afghanistan because of no political tension.

Also, ECO is considering a scheme to utilize a fund for Afghanistan Tajikistan and Kyrgyz. For application of the scheme, implementation of a joint program with IDB, ADB, ECO Development Bank after Minutes of Understanding. JICA is expected to cooperate in it.

[14] The following description is based on the hearing by JICA mission team in the ECO secretariat in October 2009.

2.1.8.4 Others

Assistance to the broader area network for Afghanistan and the surrounding countries by others is shown in Table 2.21 below.

Table 2.21 Assistance for Development of Corridors around Afghanistan by Others (1)

Activities	Objective/Purpose/Output	Status
1. Government of Iran(Iran) Road construction and improvement between Bandar Abbas and Dogharun (1,379km) (Infrastructure)	*Objective and purpose :* Facilitate movement of goods across border ・Two-lane asphalt pavement	Completed
2. Government of Iran (Iran) Road improvement between Milak and Zaranj, and construction of Zabol-Milak road and customs facilities at Milak border crossing (Infrastructure)	*Objective and purpose :* Facilitate movement of goods across border ・Two-lane asphalt pavement ・New road between Zabol and Milak ・New customs facilities at Milak	Under implementation, part completed.
3. Government of Iran (Iran) Road bypass to Chabahar-Iranshar link and upgrading of Chabahar-Zahidan road (Infrastructure)	*Objective and purpose :* Facilitate movement of goods across border and approach to Chabahar port ・Two-lane asphalt pavement	Completed
4. Government of Turkmenistan Road improvement from Atamurat to Imamnazar at the Afghanistan border	*Objective and purpose :* Facilitate trade and cross border movement	Completed
5. Government of Uzbekistan (Uzbekistan) Improvement of primary roads including Tashkent-Termez (Infrastructure)	*Objective and purpose :* Facilitate trade and cross border movement *Output :* ・Primary road improved to a two-lane or wider standard to facilitate movement of goods	Completed
6. EC (European Commission) Afghan Customs Reform under First Financing Agreement (Afghanistan) (Infrastructure and customs)	*Objective :* Reinforce the revenue base of the government *Purpose :* Re-establish a functioning customs and revenue system *Output :* ・Afghan Customs Code ・Rehabilitation of Torkham border post infrastructure ・Setting up EUROTRAC, computerized statistical package for customs and tax management	Under implementation. The Customs building at Torkham has been officially handed over to the Custom in March 2006.
7. EC Fourth Reconstruction Program for Afghanistan – Customs and Tax (Afghanistan)	*Objective :* Reinforce the revenue base of the government *Purpose :* Reestablish a functioning customs and revenue system *Output :* ・A national and international transit system for customs and revenue is set up ・Customs staff has the required competencies to manage the system ・Customs and revenue headquarters on regional level are reconstructed/newly built an appropriately equipped to ensure sound functioning	Under processing
8. USAID and Japan Rehabilitation of Kabul-Kandahar Road (Afghanistan) (Infrastructure)	*Objective and purpose :* Improve internal and cross border traffic flow *Output:* 442km from km43 to km485 rehabilitated with asphalt concrete pavement	Rehabilitation / reconstruction work completed

Source: Afghanistan; Cross Border Trade and Transport Facilitation, ADB

Table 2.21 Assistance for Development of Corridors around Afghanistan by Others (2)

Activities	Objective/Purpose/Output	Status
9. Government of Iran Rehabilitation of Dogharun-Herat-Islam Qala Road-124km (Afghanistan) (Infrastructure)	*Objective and purpose :* Facilitate cross border trade *Output :* ・The road upgraded to 7.3m carriageway asphalt surface road	Upgrading completed
10. Government of Iran Construction of Milak bridge (Iran/Afghanistan) (Infrastructure)	*Objective and purpose :* Facilitate cross border trade *Output :* A 320m bridge across border completed with 5km section of Zaranj under construction	Construction completed
11. WB Construction / rehabilitation of Sirkhan Bandar-Pule Khomri Road under Emergency Transport Rehabilitaiton Project (Afghanistan) (Infrastructure)	*Objective :* Facilitate cross border movement of goods *Output :* ・Construction / rehabilitation of the 172km road improving links to Tajikistan	Construction / rehabilitation almost completed
12. WB Construction / rehabilitation of Doshi-Kabul road and rehabilitation of the Salang Tunnel under Emergency Transport Rehabilitation (Afghanistan) (Infrastructure)	*Objective :* Rehabilitate critical road infrastructure to facilitate movement of goodsand people *Purpose :* Clear the passage way to the north for internal and cross border movements *Output :* ・Rehabilitation / reconstruction of 172km Doshi-Kabul road under way ・Rehabilitation of the Salang Tunnel completed	Construction / rehabilitation almost completed
13. Japan / ADB / Kuwait Fund for Arab Economic Development Road Employment Project for Settlement and Integration of Returning Refugees and Displaced Persons (Afghanistan) (Infrastructure)	*Objective :* Assist in Settlement and Integration of Returning Refugees and Displaced Persons *Purpose :* Rehabilitate transport infrastructure and provide social services to the refugees and the displaced *Output :* ・Rehabilitate 105km of the Knadahar-Spin Boldak road ・Upgrade marketable skills of the beneficiaries ・Provide educational and health services ・Extend micro credit to the clients	Work completed on first 61.4km with resources available. Some construction problems on this section have been addressed. Government resources are being utilized to finance the remaining 42km.
14. Islamic Development Bank（IsDB） Doshi-Pule Khomri road (Afghanistan)	*Objective :* Facilitate movement of goods and people and promote economic activities *Purpose :* Rehabilitate essential infrastructure *Output :* ・Rehabilitate 47km of Doshi-Pule Khomri road	Under implementation
15. US / Tajikistan / Afghanistan New bridge across Pyanj river (Tajikistan / Afghanistan)	*Objective :* Facilitate cross border movements *Purpose :* Improve road links *Output :* ・Construction of a new bridge across Pyanj river	With US financing work has started
16. EC Kabul-Jalalabad road (Afghanistan) (Infrastructure)	*Objective :* Facilitate movement of goods and people *Purpose :* Improve links to the north and Pakistan *Output :* ・Emergency repairs and reconstruction of the 150km road	Under implementation
17. Government of Pakistan Jalalabad-Torkham road (Afghanistan) (Infrastructure)	*Objective :* Facilitate cross border movements *Purpose :* Improve road links and Pakistan *Output :* ・Reconstruction of 74km road	Under implementation

Source: Afghanistan: Cross Border Trade and Transport Facilitation, ADB

Table 2.21 Assistance for Development of Corridors around Afghanistan by Others (3)

Activities	Objective/Purpose/Output	Status
18. Japan / Saudi Arabia / US Kandahar-Heart road	*Objective :* Facilitate movement of goods and people *Purpose :* Improve links to the neighboring countries *Output :* ・Rehabilitation of the 564km section of the ring road with cement and concrete pavement improving links to Iran and the Central Asian Republics (CAR)	Rehabilitation / reconstruction under way
19. Government of Pakistan Indus Highway (N55) Hyderabad – Peshawar (Pakistan) (Infrastructure)	*Objective and purpose :* Facilitate internal and cross border movement of goods and people *Output :* ・1,265km of national highway upgraded to two lane 100km/h design to improve movement	1,265km of national highway upgraded to two lane 100km/h
20. Government of China Construction of Gwador Port (Pakistan) (Infrastructure)	*Objective :* Promote an alternative exit point through Pakistan for domestic and foreign goods and promote the development to of an undeveloped region in Pakistan *Purpose:* Facilitate cross border trade *Output :* ・Construction of berths and other facilities	Under implementation
21. IMF / EC / USAID / DFID / GTZ and other Strengthening Afghanistan Customs Department (ACD) (Afghanistan) (Capacity Building)	*Objective :* Improve revenue collection *Output :* ・Technical support ・Training ・Change management ・Communications ・Transit	Under implementation
22. UNDP Upgrading ASYCUDA (Iran) (ICT)	*Objective :* Facilitate trade and revenue collection *Output :* ・Automation and customs data exchange	Under implementation
23. USAID Revision of the Soviet Customs Code (Tajikistan) (Customs)	*Objective :* Facilitate trade and improve revenue collection *Output :* ・Modified customs code revised to make it compliant with international standards	Completed
24. USAID “Software” support for customs and cross border trade (Afghanistan) (Customs)	*Objective :* Strengthen customs *Purpose :* Enhance revenue generation *Output :* ・Prefabricated structures for 11 cross border control zones (BCZ) ・Advisors for customs and revenue departments of the MOF ・Support for accession to WTO, bilateral trade facilitation agreements, and privatization of the national insurance company	Under implementation
25. Government of India Delaram-Zaranj road		Under construction by Border Road Organization

Source: Afghanistan: Cross Border Trade and Transport Facilitation, ADB

2-2 Summary

2.2.1 Broader area issues

(1) Current Status of Subject Areas

The countries subject to this study are mainly agricultural countries and some of them have a very high level of production of mineral resources, petroleum, natural gas and other forms of energy. Some of them have great population and need for labor and consumption. Therefore, they have much potential for economic development such as the need for trading of resources and processing them.

On the other hand, due to the instability of security in Afghanistan, trade is limited to restrictive routes in the area and various growth potentials have not been fully realized. Under the circumstances, sustainable economic activities and development are considered to be low in the subject areas.

(2) Significance of Regional Economic Development by Broader Transport Infrastructure

i Economic and industrial properties of the subject area
Agriculture is the main industry in the area but CIS countries have mineral resources and there are petroleum and natural gas in Iran, Turkmenistan, Kazakhstan and Uzbekistan.

ii The current status and potential for development
The intra-area trade is closed due to the security problems in Afghanistan, and the trade potential is underdeveloped due to limitation of trade routes.

iii Possibility of regional development by corridors
Revitalization of logistics can be achieved by trade of products from Afghanistan and development of corridors which will be the routes to export agricultural products to the surrounding consumption areas, and export and processing of intra-area resources and materials.

iv Significance of developing Afghan transit routes
Benefits to Afghanistan through logistics routes are the promotion of sustainable development by construction of routes that connect CIS countries and the Arabian Sea, and revitalization of trade among Iran, India and Pakistan.

(3) Need to Develop Afghan Transit

By building an intra-area network, further opportunity is brought by connecting resources and people of the countries in question, which creates and promotes new economic activities. The development of intra-area networks in the countries in question and the Afghan Transit going through Afghanistan will connect the resources, technology and markets in the surrounding countries to realize intra-area revitalization of trade and trigger development of the industrial potential of each country. The sustainable economic development of all countries in question will be realized by diversification and stabilization of the inland countries which have limited resources and environment and by contributing to expansion of hinterland in the case of coastal countries.

Therefore, the intra-area network of Afghan Transit connecting Afghanistan and the surrounding countries will play a vital role to realize sustainable economic development of the area, and the significance of the development is great.

2.2.2. Inter-sectoral Issues

(1) Road Sector

In this section, the current status of the road networks crossing the countries in question is reviewed from the viewpoints of road design standards, traffic volumes, logistics and logistic barriers on the whole.

A. Road Design Standards and Traffic Volume

The degree of development of road infrastructure in the subject countries differs due to their historical backgrounds and economic power in the recent years. The status of international arterial roads in each country is described in Chapter 2-1. Figure 2.55 on the next page shows the road design standards and traffic volume of each country.

Concerning the road network of Afghanistan and the surrounding country, we studied the logistics connecting Afghanistan and the CIS countries in relation to the ports in Iran and Pakistan (Bandar Abbas, Chabahar, Karachi and Gwadar ports).

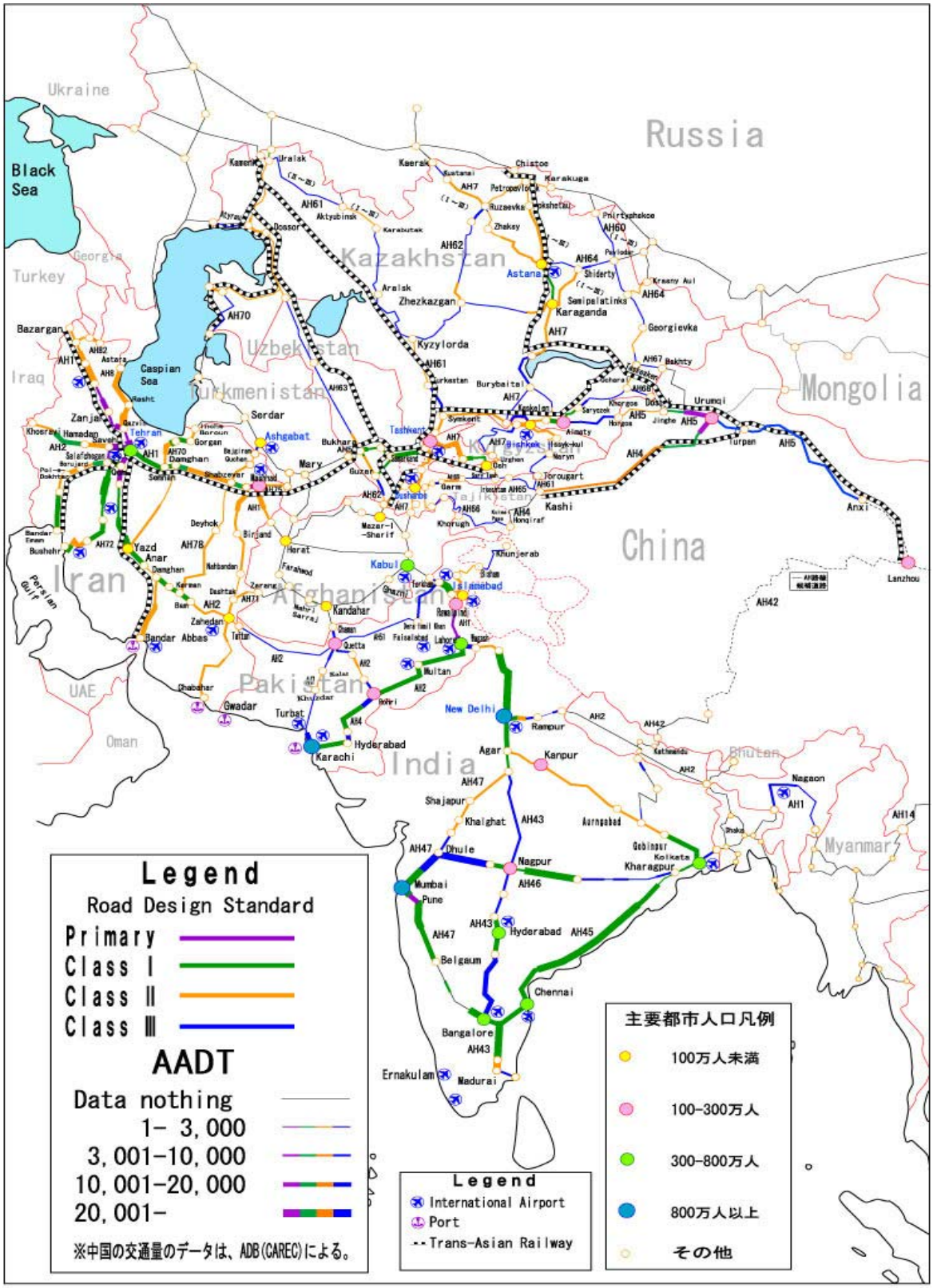
a) Iranian Ports (Bandar Abbas/Chabahar)-to the CIS Countries

The Iranians, as mentioned above, have been developing roads by themselves owing to their rich economic power and have networked major domestic cities by high-grade highways. The Iranian road network plays the role of distribution routes to transport to CIS countries and Afghanistan, and partially to Pakistan, the goods landed at Bandar Abbas and Chabahar ports. The routes to CIS countries from the Iranian ports are as follows:

① The route through Mashhad to Turkmenistan, not through Afghanistan to Dushanbe, Tashkent, etc.
② The route through Mashhad to Turkmenistan via Herat and Aquina and to Uzbekistan via Mazar-e-Sharif
③ The route from Zahedan via Zaranj and Dilaram to Turkmenistan and Uzbekistan

Currently, mostly route ① is used.

The other routes are not selected because there is a section where the road rehabilitation project has not been completed between Aquina and Herat, the north of the ring road in Afghanistan, and there are sections of bad pavement and areas of bad security. The CIS countries including Uzbekistan should expect to pay high transit fee if only the route via Turkmenistan is selected upon forwarding goods to the Iranian ports and they strongly desire development of another route through Afghanistan.



調査対象国におけるA.H.路線の道路種別および年平均日交通量（2009年UNESCAPデータに基づき調査団で作成したもの）
※アフガニスタン、トルクメニスタンについては、道路種別のデータはあるが、交通量が不詳。

Figure 2.55 Design Standards and Traffic Volume of International Arterial Roads

Concerning the route ①, Figure 2.56 shows the road design standards and traffic volume along the route connecting Bandar Abbas port, Mashhad and Turkmenistan

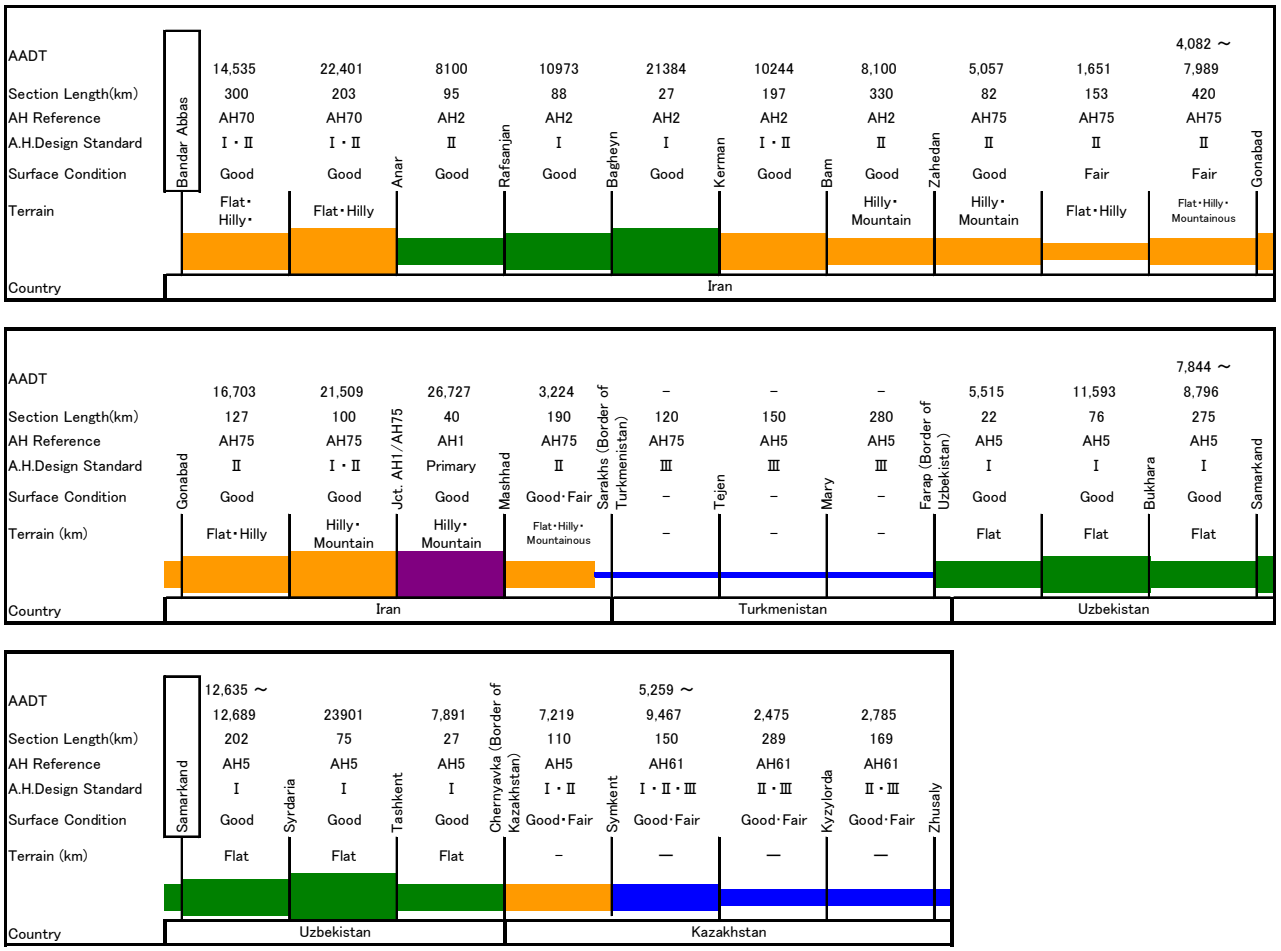


Figure 2.56 Road Design Standards and Traffic Volume between Bandar Abbas Port and CIS Countries

The route starts from Bandar Abbas Port to Zahedan in Iran, and further to CIS countries and Russia without passing through Afghanistan. In Iran, the roads are basically well-developed and maintained. The AH2 from Tehran to Kerman and Bam is a good route with many 4-lane sections. The roads in Turkmenistan are Class III but according to UNESCAP, the major domestic road sections are being renovated. The details are mostly unknown. The roads in Uzbekistan on the route are in a good condition.

b) Pakistani Ports-CIS Countries

Main routes connecting Pakistani ports (Karachi/Qasim, Gwadar) and CIS Countries are:

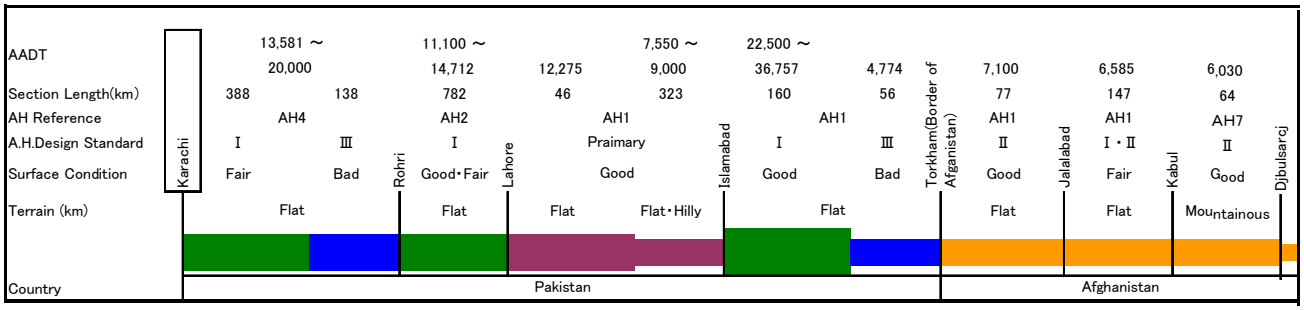
i Karachi-Lahore-Peshawar-Kabul-Mazar-e-Sharif-Uzbekistan
ii Karachi-Quetta-Kandahar-Kabul-Mazar-e-Sharif-Uzbekistan
iii Gwadar- Quetta-Kandahar-Kabul-Mazar-e-Sharif-Uzbekistan

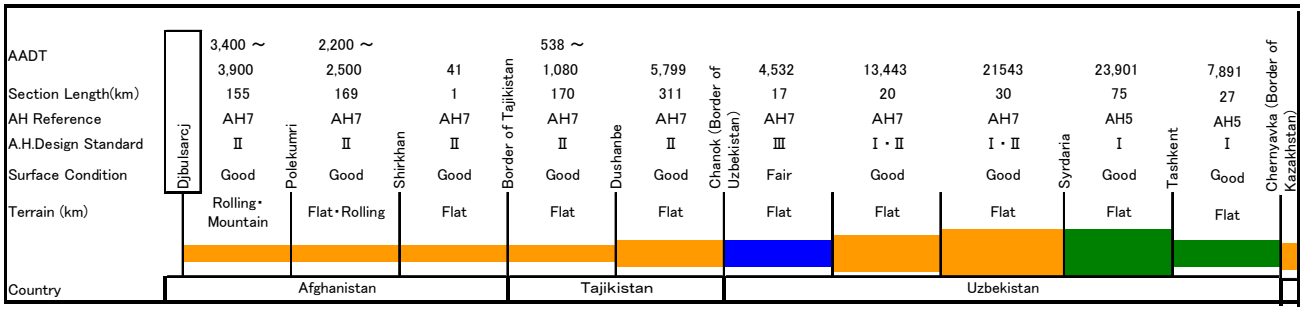
The major route is (i). Route (i) starts from Karachi to go north along the Indus River to N-5 (in Pakistan) and is connected to Lahore, Peshawar and other points in Afghanistan. Routes (ii) and (iii) have certain potential but Route (ii) has security problems in the Balochistan Area and NWFP Area and Route (iii) has a problem that Gwadar Port is being extended and not many cargos are handled, and the access road is yet to be developed due to security problems. Therefore, the transportation depends on Route (i)

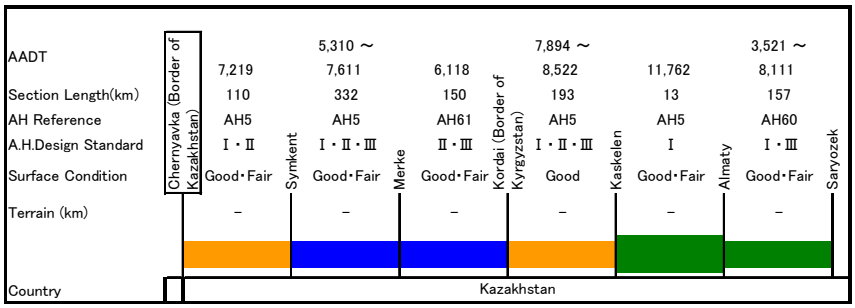
Concerning Route (i), the road design standards and traffic volume in connection with Karachi Port, Lahore, Kabul and CIS countries are illustrated in Figure 2.57.

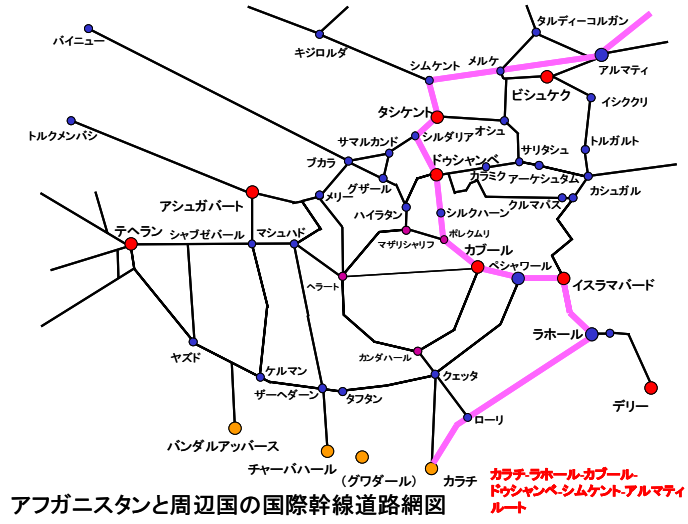
There is much traffic volume in Pakistan and the expressways between Karachi and Lahore and between Lahore and Islamabad is an Asian Highway route and the situation as the international arterial road is very good. According to the data of UNESCAP, there are some class III sections near Rohri, for which development is awaited. Concerning the Pakistan/Afghanistan border, ADB intends to rehabilitate the road between Peshawar and Torkham. The sections on the route in Afghanistan are of 2 lanes. Progress has been made for improvement of the road by international donors and the ring road and the route between Polekumri and Tajikistan border is good according to the evaluation by UNESCAP. In Tajikistan, AH7 from the north to the south is Class II for all sections, but the traffic volume is less than 6,000 vehicles (AADT) now, which means no problem in terms of traffic capacity. In terms of comparison of the route, it seems that development is delayed to accommodate the traffic volume in the section between the Tajikistan/Uzbekistan border and Syrdarya on AH7 in Uzbekistan, as compared to the northern section between Syrdarya and Tashkent/Chernyavka (Uzbekistan/Kazakhstan border).

The route is the current main route of logistics to reach Karachi Port in Pakistan from the CIS countries. To secure smooth logistics route, it is felt that Class III sections on the route will have to be developed.









アフガニスタンと周辺国の国際幹線道路網図

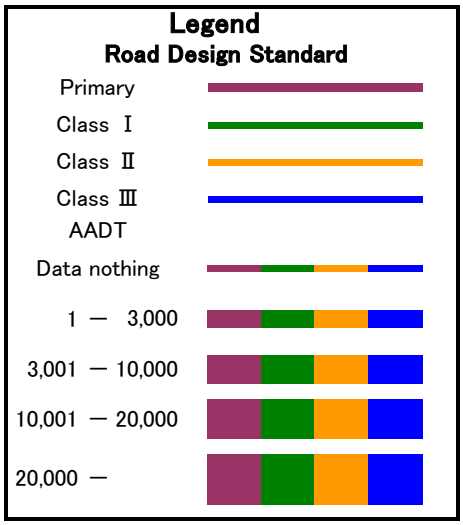
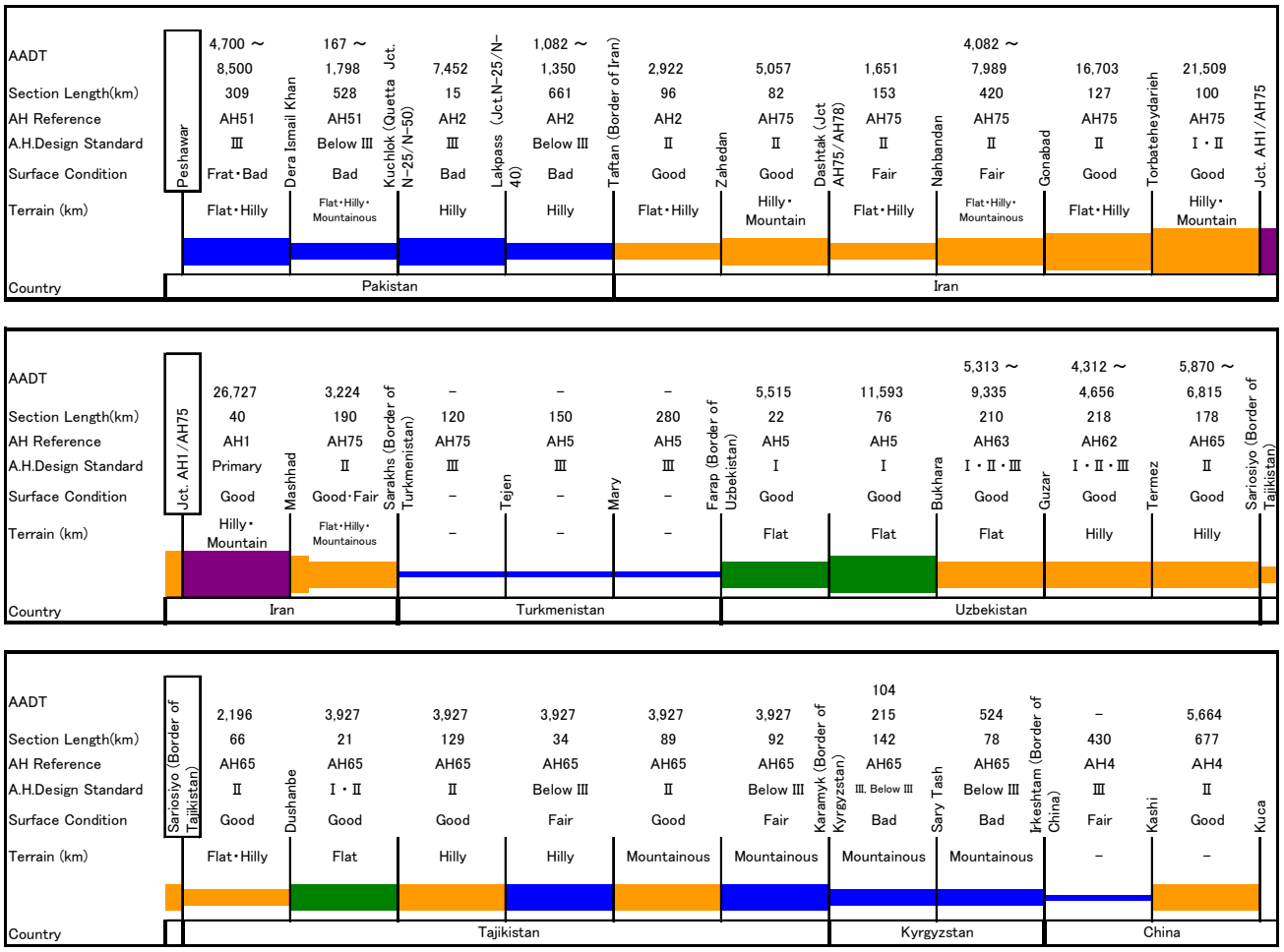


Figure 2.57 Road Design Standards and Traffic Volume between Karachi Port and CIS Countries

c) The Route Circumventing the Afghan Borders

The route on the next page shows the route to shape a ring road among the countries neighboring Afghanistan.



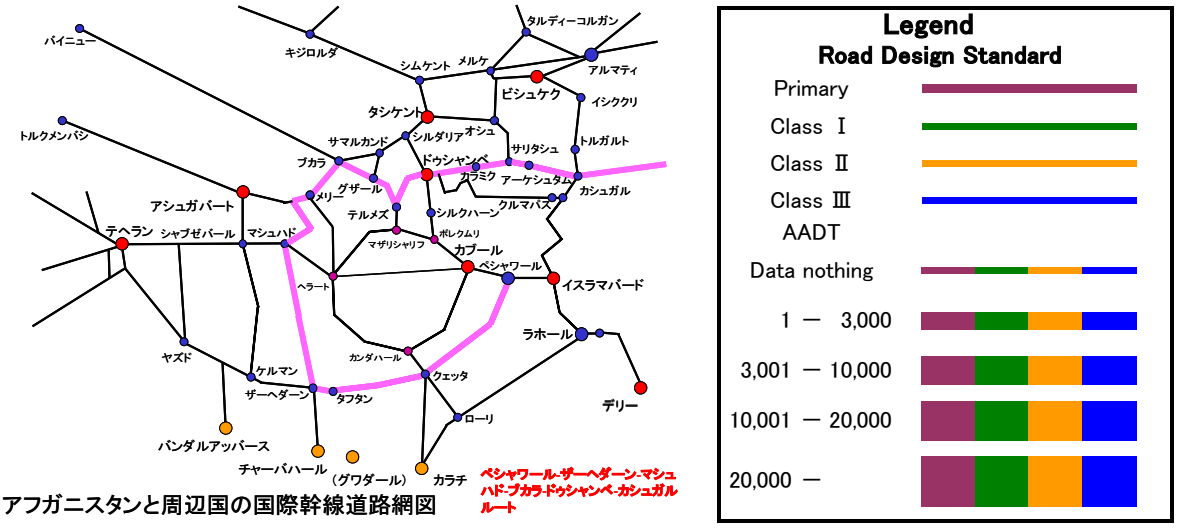


Figure 2.58 Road Design Standards and Traffic Volume of the Routes Connecting the Countries Neighboring Afghanistan

Roughly speaking, the route passes through the Balochistan State in Pakistan, road rehabilitation is not fully conducted reflecting the prolonged bad security in the area (UNESCAP).

The route to cross from the east to the west in Tajikistan and to go from the east to west in the southern part of Kyrgyz is topographically severe mainly in the sections crossing the Tian Shan Mountains, and there are many Class III sections mainly in the mountainous sections. The section from Dushanbe to the east crosses about 300km in the mountains, and it is possible that slope failure may frequently occur. Road development will be needed in the future from the viewpoint of disaster prevention.

B. Road Logistics Focusing on Afghanistan

Table 2.22 shows the trade items with neighboring countries in the statistics of Afghanistan. Major import items are petrol oil, tires, diesel oil, flour, glass, carpets, iron rods, vehicle spare parts, clothes, and gas. Export items are dry fruits, cumin (a kind of spice), carpets, sesame seed, grapes, etc. These items are distributed mainly over roads.

According to IMF, in the total trade of US$5.4 billion of Afghanistan, US$1.2/1.7 billion is estimated to be re-exports. It is often pointed out that a considerable amount of goods imported in Afghanistan is reverse-exported to Pakistan and Iran.

Table 2.22 Afghan Trade Items Transported by Trucks to and from Neighboring Countries

TOTAL(100%)	Import(84%)	Export(6%)	Transit(10%)
Iron metal	Petrol oil	Dry Fruit	Iron metal
Petrol oil	Tire	Cumin	Vehicle spare parts
Carpet	Diesel oil	Carpet	Cotton
Tire	Flour	Sesame seed	Iron rods
Diesel oil	Glass	Grapes	Cement
Flour	Carpet	Animal Intestine	Wheat
Glass	Iron rods	Melon	
Iron rods	Vehicle spare parts	Fumiture	
Vehicle spare parts	Cloth	Raisin	
Cars	Gas	Apple	
44% of Total	43% of Imports	99% of Exports	100% of Transit

Source: ADB TA 4536 survey 2005

The transit trade involving Afghanistan goes through the following two main routes:

i The route to transit Afghanistan to the third countries

ii The route to transit Turkmenistan to Afghanistan

The transit trade (i) via Afghanistan is to transport to Pakistan the goods from the northern neighboring countries (Uzbekistan, Tajikistan, and Turkmenistan). Some of the goods, though not many, are further transported to Iran and northern countries. Currently, Afghanistan is not functioning as a center of logistics and the amount of transit trade is low. If the logistics environments in the related countries are improved, the transit trade in the area will increase.

What follows next is the summary of trades between Afghanistan and the neighboring countries with reference to the results summarized by the "Master Plan for Road Network Improvement Project in Afghanistan, ADB 2006".

a) Traffic Flow at Borders

According to the material issued by the Central Statistics Bureau, the total imports to Afghanistan in 2004 were about US$2.2 billion but the total exports were only US$305 million. In dollar values, imports include machinery and equipment (28%), life necessities and medicines (14%), textiles, clothes and shoes (18%), foods (6%), chemicals (4%), and others (22%). Thirty eight percent of imports are from Asia and 63% of the imports are from other areas. The exports from Afghanistan are mainly composed of agricultural products: dry fruits and nuts (27%), fruits (4%), medicinal plants (3%), seeds and spices (1%), wool textile (3%), and leather (7%).

The major trade partner of Afghanistan is Pakistan. As of 2006 the annual trade value between Afghanistan and Pakistan stood at US$1 billion but, in contrast, the trade with Iran stood at US$250 million.

The imports from Pakistan are mainly foods and construction materials. According to the formal statistics of Pakistan, major items of export were various foods (53%), wheat (flour), sugar and rice (27%), steel products (6%), cement (4.6%), and paint (3.8%).

The trade situations changed dramatically between the 1970s and after. In the period of Soviet occupation, 70% of the total trade was with the Soviet Union. Goods were brought in by railways from Termez near Uzbekistan and Torghundi near Turkmenistan. At that time, the trade volume with Pakistan was about 20% and with Iran, about 10%. The country is now in a completely different situation. The trade of Afghanistan is mainly with Pakistan and Iran, and the trade volume with the north (Uzbekistan, Tajikistan and Turkmenistan) is little. Much of the rehabilitation assistance and aid supplies comes mainly from Pakistan and commerce items come from Iran. Major import items from central Asia are fuels. According to the Petroleum Company of Afghanistan, the country imported liquid fuels reaching about 85,000m^3, 79% of which came from Uzbekistan via Hairatan and 19% of which was from Turkmenistan via Andkhoi. Two percent of fuel came from Iran via Islam Qala.

The currently important border points in Afghanistan are:

- The route to reach Karachi and Qasim ports via Torkham; and
- The route to reach Bandar Abbas Port in Iran via Dogharun and Islam Qala.

b) Current Status of Trade in the Area

The trade volume (logistics) is very small now. In the area including Central Asia and Afghanistan, the trade ratio is 20% for Tajikistan which has the smallest economy, followed by Turkmenistan which has the next smallest economy. The trade ratio of Afghanistan in the area is about 10%, which is the smallest. Iran and Pakistan have trades with other parts of the world, differently from Afghanistan, Tajikistan, Uzbekistan and Turkmenistan. For both countries, about 2% of the total trades are imports and exports to and from the neighboring areas.

The small trade in the area has many reasons: the countries have similar economic structures; small bases for exports; old, traditional routes; the vector of movement and logistics has headed to the north (the Former Soviet Union), and the roads and railway networks have been developed in this direction. Because of these reasons, the trades in the area are not growing much now.

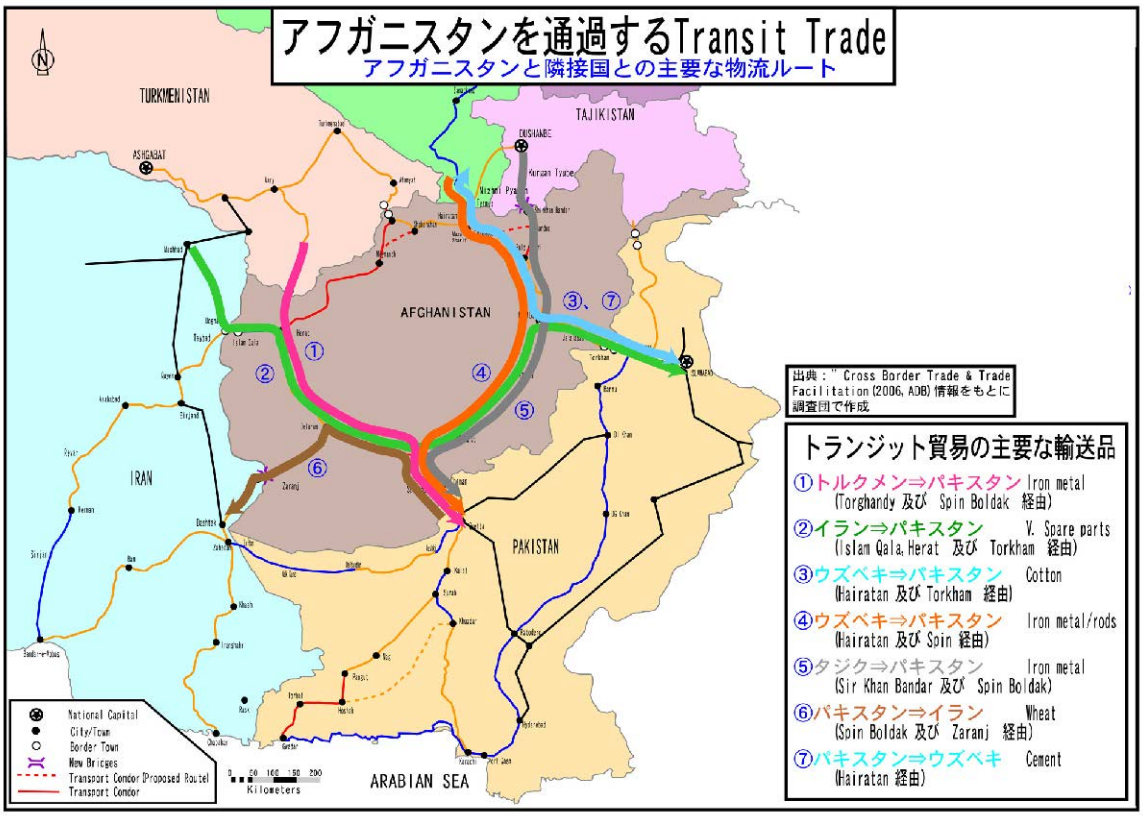


Figure 2.59 Transit Trade that Passes through Afghanistan

C. The Logistics Barriers in Roads Connecting Afghanistan with the Neighbors

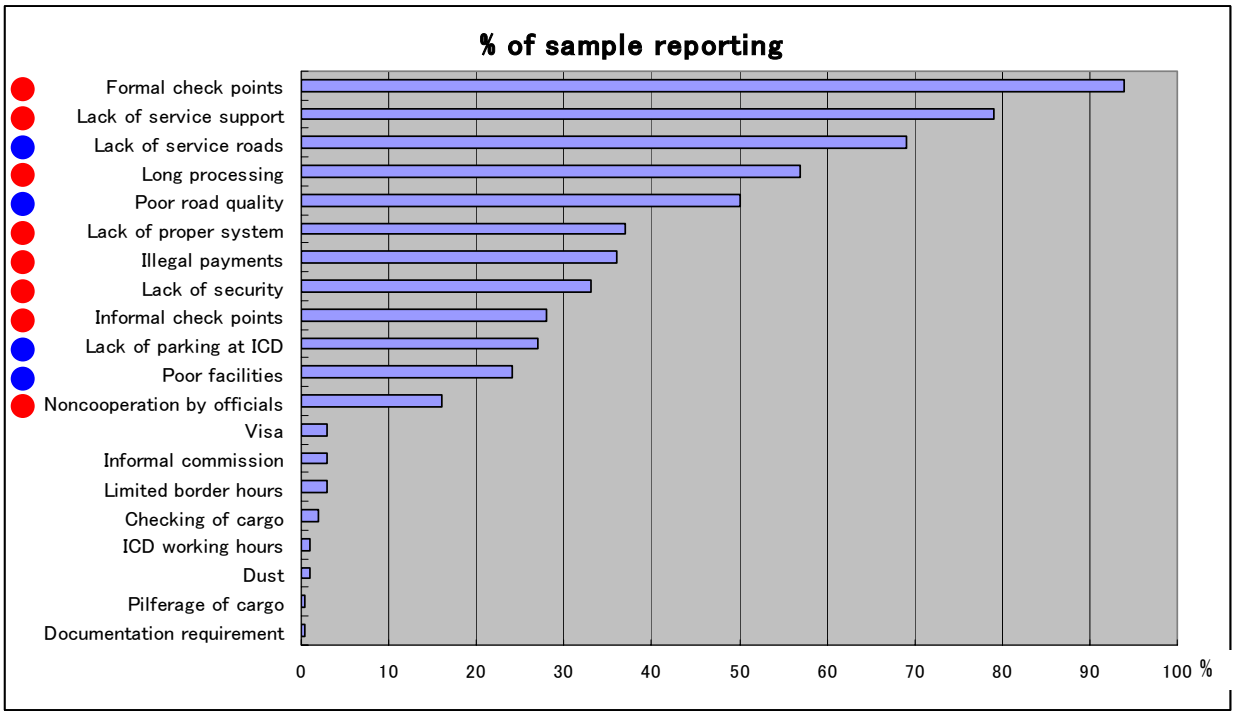
For expansion of cross-border trades in Central Asia and South Asia, the "Report for Cross Border and Transport Facilitation" lists the following points as current issues.

・Lack of supplementation and competition among the countries in the area
・Customs procedures
・Guideline for tradess
・PTA : Preferential Trading Arrangements
・Transhipment at border points
・Approval of transit trades
・Lack of vehicle standards and axle load restrictions
・Visa regulations
・Informal impositions
・Protection of local transportation

As a result of questionnaires to truck drivers, they listed 20 items that work as restrictions for vehicles and cargo transportation. The five items below were most often reported by the drivers.

・Required procedure and time at formal check points were excessive.
・Lack of service facilities along the border access roads
・Lack of service roads to repair troubled vehicles
・Long processing time at borders/ICD (inland depots)
・Poor road quality

Figure 2.60 shows the barriers that hinder realization of smooth logistics as heard from transportation providers (according to Cross Border and Transport Facilitation Report).



Source: Report on "Cross Border and Transport Facilitation, ADB 2006, with some additions

Figure 2.60 Issues in Vehicle Operation

Concerning the items indicated in Figure 2-58, we classified the superior items for which multiple answers were received for non-structural issues (red circle) and structural issues (blue circle), and many of the answers were non-structural issues. Many of them were related to various procedures and time relating to customs and crossing at borders and seaports, and lack of service functions near such facilities. In addition to institutional underdevelopment of customs procedure and collection of informal dues, not only the customs system is insufficient but also its operators are problematic. Concerning structural aspects, underdeveloped access roads to the border points, underdeveloped service facilities near the border points, shortage of parking spaces, and other insufficiencies of border facilities and lack of service rather than passage in a country are pointed out.

(2) Railway Sector

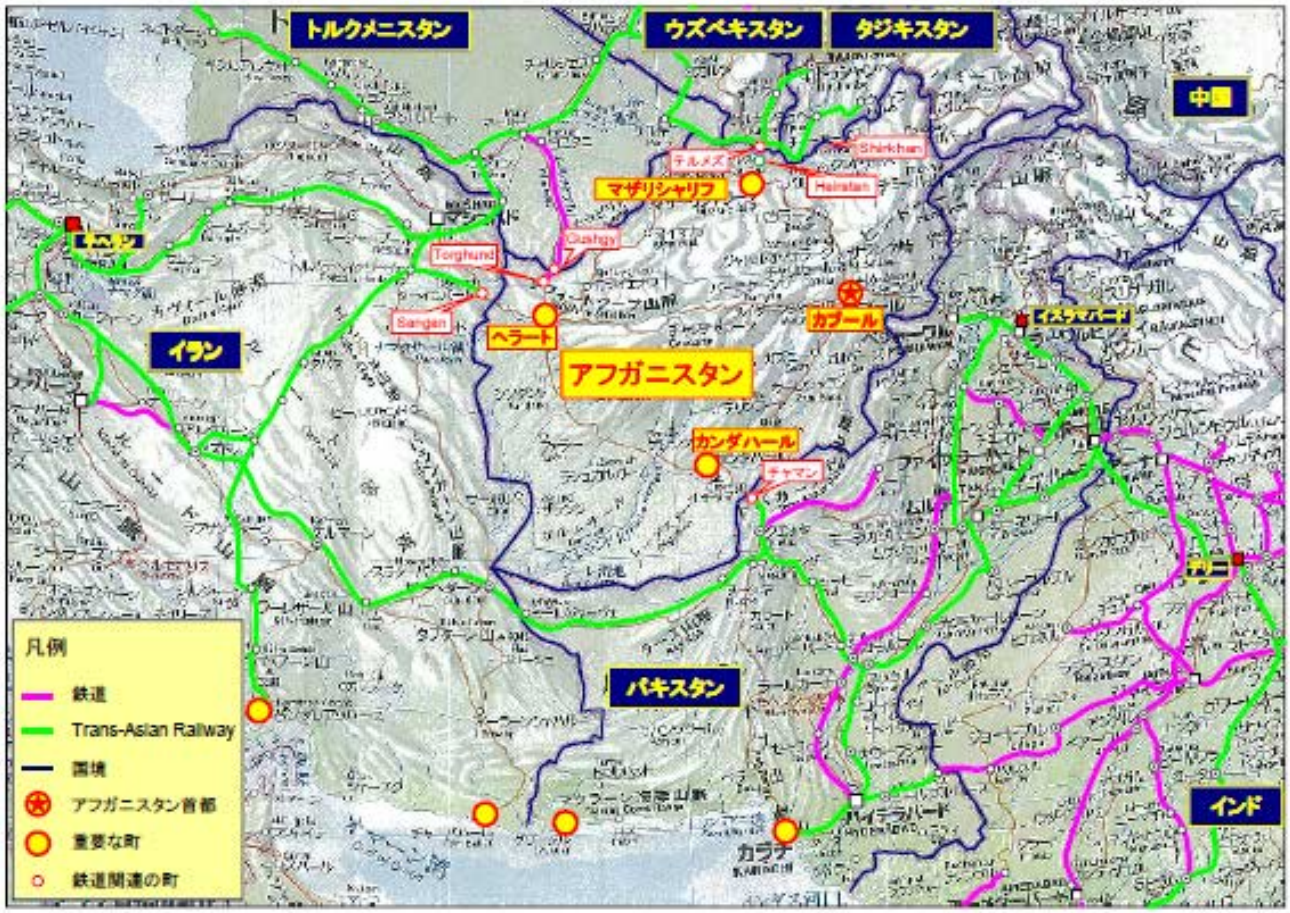
A. Railway Network in the Surrounding Countries

To the north of Afghanistan, there are three CIS countries, i.e. Turkmenistan, Uzbekistan and Tajikistan. The CIS countries established passenger and cargo transportation system mainly by railways in the era of the Former Soviet Union. Due to financial difficulties after collapse of the Former Soviet Union in December 1991, the rails and vehicles were under-maintained and the system was about to break down. Due to assistance by international organizations such as JICA, ADB and EU and economic independence supported by rich resources, the system has now been reconstructed nearly to the level of 1991 or earlier.

The railway networks of these CIS countries are connected not only to other CIS countries but also to the Russian Federation, Caucasia, and Mongolia on the same track gauge (1,520mm). The maintenance situations vary among the countries but are roughly good with some exceptions. The network is connected to China and Europe with a gauge of 1,453mm, but transshipment facilities, bogie exchange and/or change of vehicles are necessary.

The railway goes into Afghanistan by 10km and 15km respectively from Turkmenistan and Uzbekistan crossing the borders, and just in front of the border from Tajikistan and connection to Afghanistan is planned as a future vision. By the grant aid of ADB, construction of about 60km has begun from Uzbekistan Railways to Mazar-e-Sharif.

Iran, located west of Afghanistan, is active about railway development, and maintains as appropriate the railway facilities, and new passenger vehicles of European specifications are being introduced. With the standard gauge of 1,435mm, the rail is connected to Turkey and Europe. From the port of Bandar Abbas, the rails go north to be connected to Turkmenistan. Although exchange of bogies and transshipment of containers are required at borders, it plays a vital role as a line connected to Central Asia. The access to Afghanistan is realized by the railway heading north from Bandar Abbas Port branching to cross the border to the 60km point before Herat, but the construction is suspended due to lack of funds.



Legend: Railway Border Capital Kabul

Figure 2.61 Current Railway Transport Network Surrounding Afghanistan

Pakistan lies southeast of Afghanistan. The Pakistan and Bangladesh railways were established with a broad gauge of 1,676 mm in the era of the British colony.

The railway management is in the red every year now. Sufficient maintenance is not conducted and delays and accidents of trains occur due to the speed limit and bad facility maintenance. There are two connections with India in the north and the south. An arterial railway from Karachi Port goes north to Peshawar playing a material role as the great industrial artery. There is a plan to have connections with Peshawar in the north and Chaman in the west, and The Pakistan Railway is currently surveying the route.

As indicated in the next map, the railway network in the countries surrounding Afghanistan is developed to certain extent, but Afghanistan is a blank in terms of railways, and the network is disconnected. When connecting the network, transshipment, exchange of bogies and transfers are necessary due to three different track gauges.

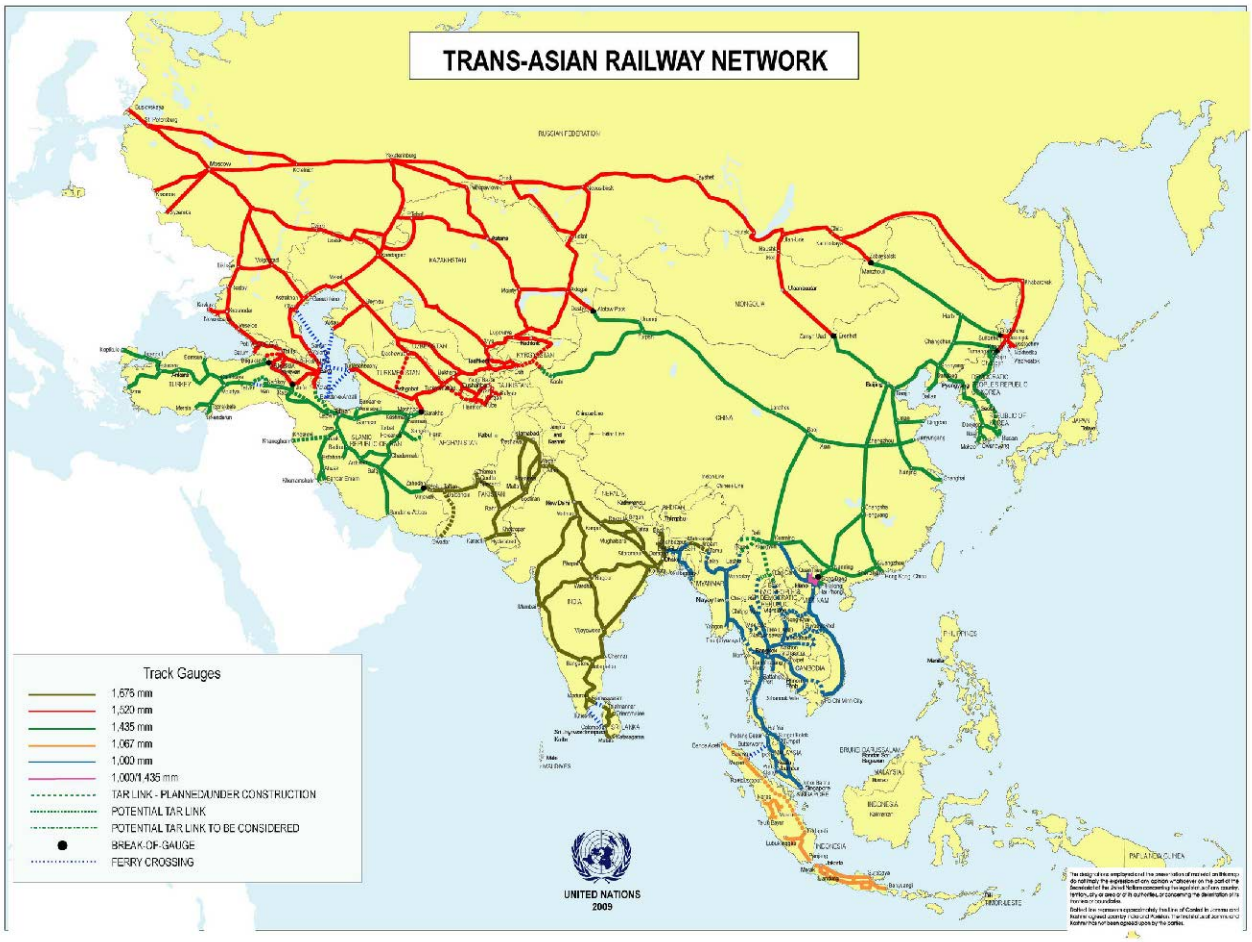


Figure 2.62 Trans Asian Railway Network (UNESCAP)

B. Railway Development Plan in Afghanistan by ADB

ADB is actively supporting Afghanistan and conducted the Railway Development Study in 2009, and the final report will be completed in March 2010. ADB plans to develop the railway between the Tajikistan border Sherkhan Bandar and Herat (1,246km; 1A), between the Pakistani border of Torkham and Mazar-e-Sharif (718km; 1B), and between the Pakistani border of Spin Boldak and Kandahar (103km; 1C). The total length of 2,067km or 3 lines is incorporated in the Trans Asian Railway network as Trans-Afghan Transport Corridor. Concerning 1A and 1B, a study will be conducted to confirm the feasibility.

Trans-Afghan Transport Corridor (Total Length 2,067km)

Corridor No.	Start and End Point	Length (km)
1A	Shirkhan Bandar – Herat	1,246km
1B	Mazar-e-Sharif – Kabul – Logar Copper Mine – Torkham	718km
1C	Spin Boldak – Kandarhar	103km

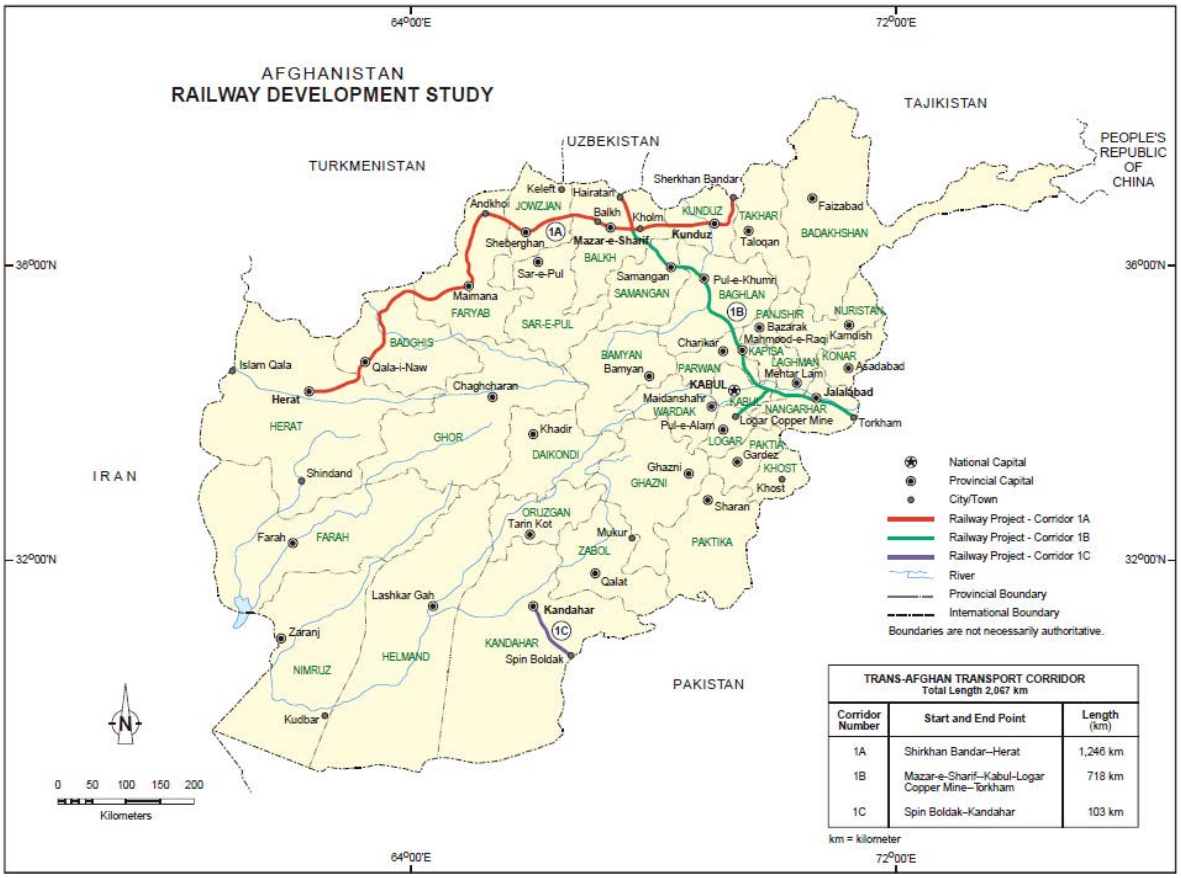


Figure 2.63 Three Railways Planned by ADB (ADB Material)

C. Development of the Railway Transportation System by Realization of Trans-Afghan Transport Corridor

In the 3 railways mentioned above, the line from the Iranian border to Herat under construction now and the line from Uzbekistan border to Mazar-e-Sharif are supposed to be completed in 2-3 years.

a) Network after Completion of 1A

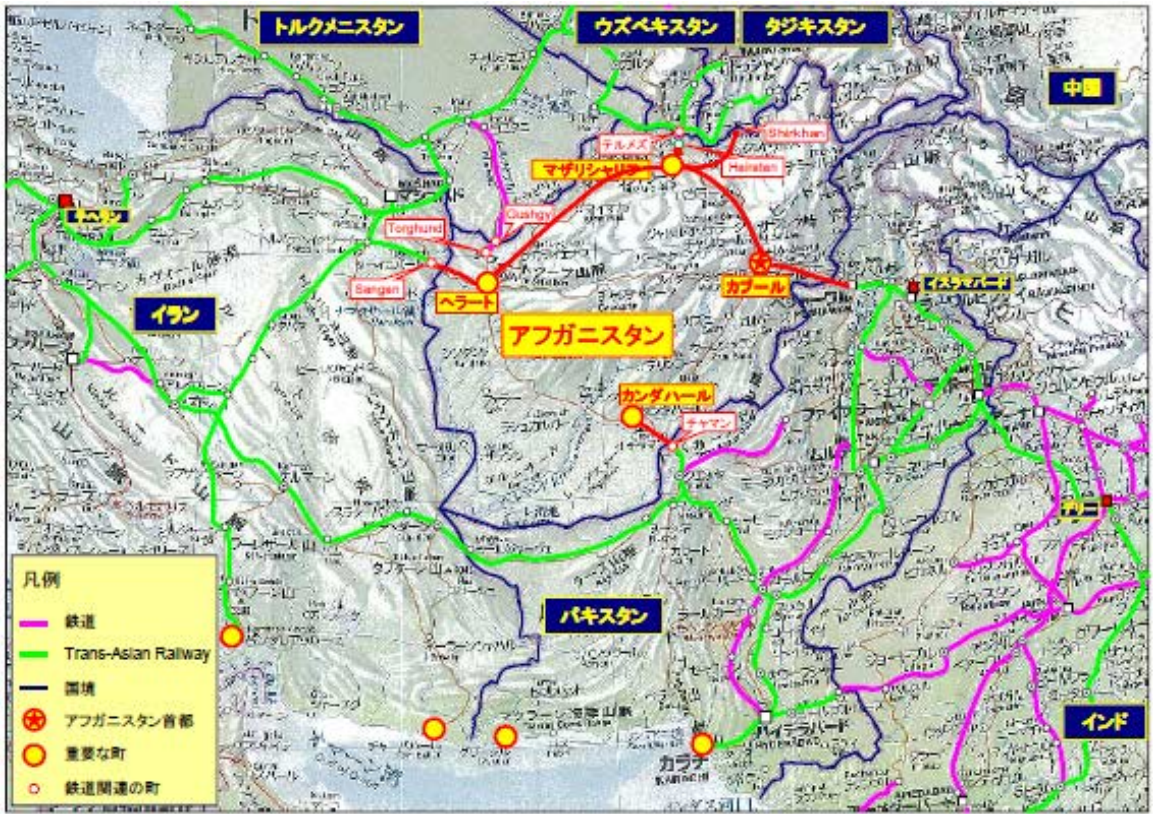
The line of 1A connects Tajikistan, Uzbekistan and Iran. It will enable easy transportation of goods from Central Asia and Iran to the two cities of Herat and Mazar-e-Sharif. The central Asian countries can pass through Iran without crossing Turkmenistan to use Bandar Abbas Port in the Persian Gulf and it is possible to establish a transportation route not depending on Turkmenistan.

b) Network after Completion of 1B

The route 1B passes through Kabul, Copper Mine and Mazar-e-Sharif and has connections with Uzbekistan and Pakistan. Due to the connection of Central Asia with Pakistan, it is possible to use the Karachi port, and to establish an alternative route not depending on Turkmenistan and Iran. It is also possible to secure logistics between India and Central Asia, and it is expected that transportation will increase: industrial products from India, and primary industrial products and cotton from Central Asia. It is technically difficult to construct railways in the steep Khyber Pass and detailed study of alignments is needed.

c) Network after Completion of 1C

The route 1C is a line to connect from the Pakistani border to Kandahar, a major southern city of Afghanistan. The completion of this route will enable cargo passage from Karachi Port, Pakistan directly to Afghanistan by railways, and those cargos will be transshipped at Kandahar by trucks to be transported within the country. The route underwent a feasibility study of the Pakistan Railways. The study report is awaiting approval of the Government of Afghanistan. The area is flat and construction is easy if not bothered by security issues.



Legend: Railway Border Capital Kabul

Figure 2.64 Realizations of Trans-Afghan Transport Corridor and the Railway Transport Network

D. Current Railway Network in Afghanistan

The contribution of railways is a little in cargo transportation to Afghanistan, but there are four routes.

Route A1: Cargos from Southeast Asia and China are brought by rail to Peshawar, transshipped to trucks in Peshawar, and transported in Afghanistan, crossing the Khyber Pass via Kabul. This route is not used much now due to poor maintenance of the railway infrastructure.

Route A2: Cargos are transported by railway from Karachi Port to Chaman and transshipped to trucks. There is the same problem of poor maintenance of the railway facilities. The cargos go through Kandahar.

Route B: The cargos from Southeast Asia and India are transported by rail from Bandar Abbas Port in Iran up to Sangan, where transshipment is made to trucks to reach Afghanistan. It is thought that much of the cargos resist passage through Pakistan. The railway route is well maintained and sufficient to accommodate future increase of cargo amounts. Cargos are transported through Herat.

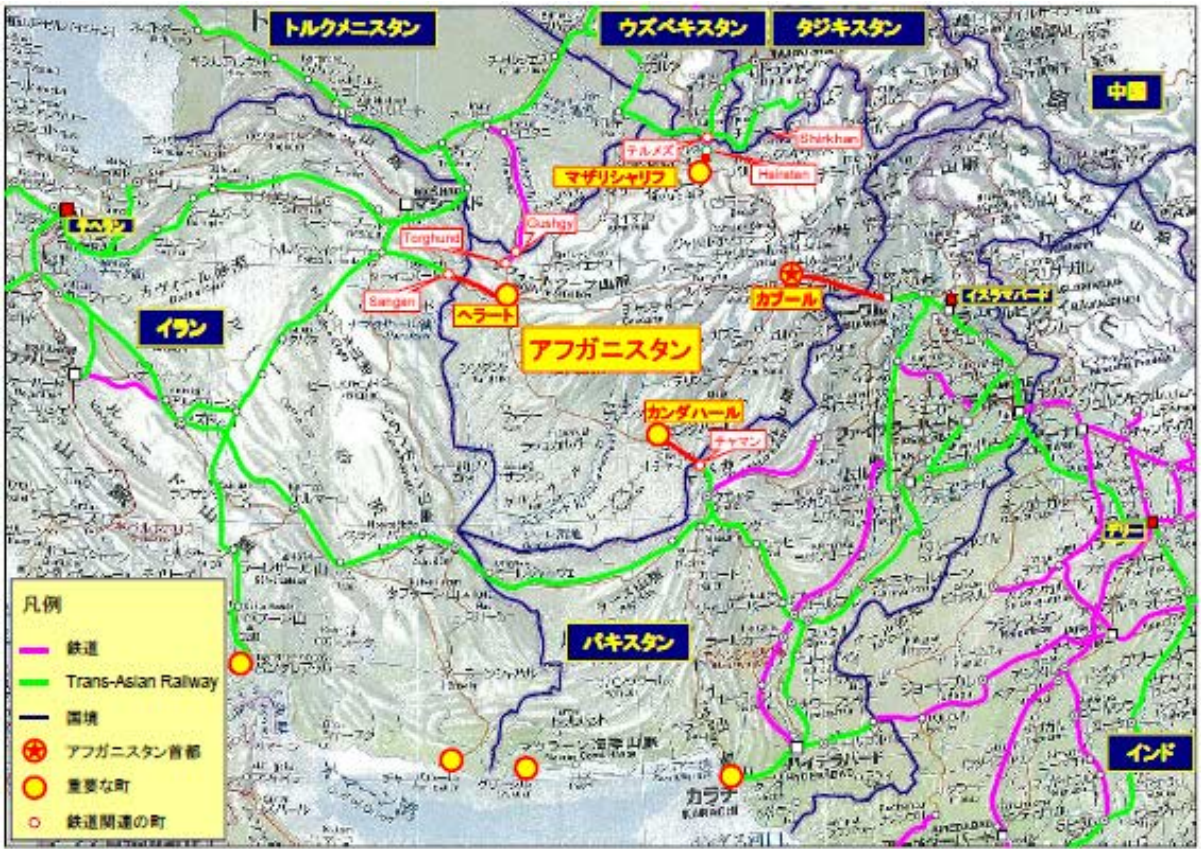
Route C: Products from Central Asia and Russia come to Hairatan via Uzbekistan by train and transshipped in Hairatan on trucks via Mazar-e-Sharif. At present, 4,000 tons of cargos are transported monthly. The figure is close to the capacity of the transshipping facility. The figure is expected to reach 25,000-40,000 tons a few years later.

E. Railway Network Five Years from Now

In Afghanistan, construction of a railway between the Iranian border and Herat is suspended temporarily but ongoing. There is only 60km to go. Construction from the Uzbekistan border and Mazar-e-Sharif will be started in 2010. By 2015, it is expected that 140km to Herat and 80km to Mazar-e-Sharif will be in operation. By the opening of the two railways, two routes from Iran and Uzbekistan will be secured and connected with the ring road to establish an efficient logistics system. However, appropriate transshipment facilities or an inland container depot is necessary at the terminals.

The route to Kabul from the Pakistan side and that to Kandahar are planned. The route to Kandahar is technically easy and involves cheaper construction cost. Despite expensive construction cost and technical problems, it is significant to connect the capital Kabul by railway. If certain routes go through Pakistan, it is necessary to have appropriate infrastructure of Pakistan Railways. Track rehabilitation, introduction of new vehicles, double-tracking, electrification and other means are necessary to increase the transport capacity. Other tasks include the cargo handling volume and time of Karachi Port.

It will be an effective system 5 years later to construct railways to Herat, Mazar-e-Sharif, Kabul and Kandahar, placing cargo transshipment facilities or inland container depots for truck transportation and transporting goods through the ring road. The precondition is that the road infrastructure in Afghanistan, including the ring road, should be well developed. Construction of railways involves much investment and construction of all routes proposed by ADB requires railway operation organization in Afghanistan. The Pakistan Railways seems to be ready to support education of railway staff of the Afghanistan Railway. Anyway, the ADB's construction plan seems to be difficult in terms of financial support, and it is an objective for the time being to realize the network 5 years from now. If adequate funds are attracted from other countries, and if we consider the job creation effect resulting from railway construction and establishment of the railway organization as well as economic effects by easier access to the copper mine near Kabul, then the proposal of ADB may be realized earlier.

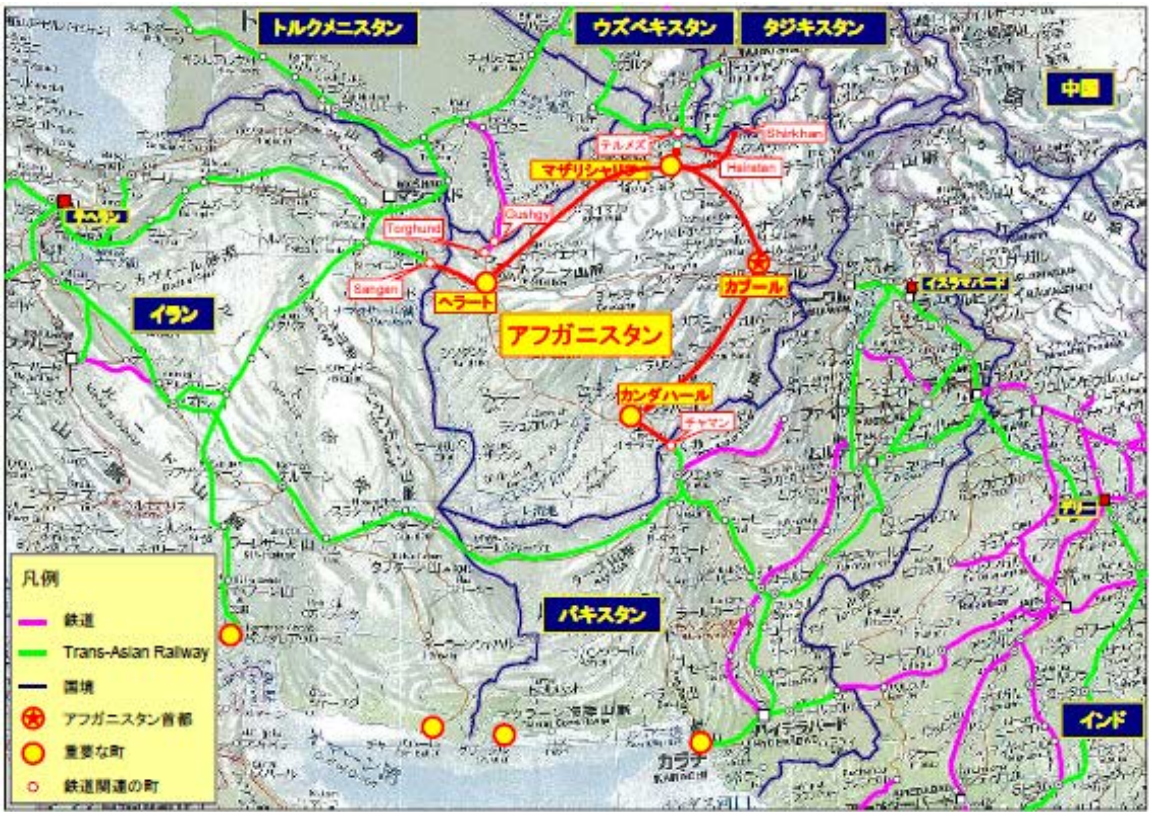


Legend: Railway Border Capital Kabul

Figure 2.65 Railway Network 5 Years from Now (2015)

F. Railway Network 20 Years from Now

Twenty years from now, all of 1A, 1B and 1C routes will have been completed as agreed to by ADB. Concerning 1B, the section between Kabul and the border to Pakistan will be delayed or not constructed due to the steep topography of the Khyber Pass. In that case, by constructing railways from Kandahar to Kabul, it may be possible to connect Chaman, Kandahar, Kabul, Mazar-e-Sharif and Hairatan to form a route through Pakistan, Afghanistan and Uzbekistan. Opening of the route means availability of the ports in Iran and Pakistan. Then, the cargo transport to Afghanistan will be easier. Securing multiple routes to the Persian Gulf from Russia and Central Asia, and to Europe through Iran and Turkey, the transportation of goods will be easier, which will greatly contribute to the economic development of Central Asia, South Asia, Russia, Iran and Turkey.



Legend: Railway Border Capital Kabul

Figure 2.66 Railway Network 20 Years from Now without Khyber Pass

(3) Port Sector

A. The Current Status and Issues

Starting from the East and Southeast Asia which is a growth center in the world economy and a production center, some logistics corridor construction concepts have begun moving in reality to connect to inland areas and further into the Eurasian Continent. At a time of borderless world logistics, even in areas from Southwest Asia to Central Asia which have not caught up with the trend due to regional conflicts, the construction of international transportation modes is an unavoidable task for economic development of related countries as symbolized by the trial of the international arterial railway between Islamabad and Istanbul.

a. Multimodal World Logistics and Issues on Ports

As containerization has progressed, unit transportation packages enabled combined multimodal transportation, moving among continents without changing the mode of packing, and it has now become possible to move containers to deep inland after transhipment, thus enabling cross-border transportation. In the past, the oceans which divide continents prevented logistics, and marine transportation was merely a substitute for land transportation. As of now, it efficiently connects long distances by a straight line (or avoiding disturbance on the ground), and attractively offers the convenience of cheaper, faster and safer means of logistics. Ports are enhancing their existence as nodes of marine transportation and land transportation.

In multimodal transportation, not only structural development such as port terminals and land access to the backlands, but also arrangement of conditions of various logistics systems are needed for smooth traffic. In the advanced countries, (i) prior declaration of imports is possible and import declaration and examination and inspection are omitted upon arrival of cargos to the terminal, and speed-up of import permission and cargo acceptance are possible and (ii) AEO (Authorized Economic Operator) is introduced. The importers which are excellent mainly in security compliance can enjoy simplified customs clearance. It is a general rule that the procedure is computerized and single window.

In Pakistan, active initiatives by introduction of private capital are being pursued to expand port capabilities (see 2.1.3.4). However, security issues and development in terms of social systems are considerably delayed, and imported containers going out of port terminals after customs clearance are checked by opening cargos in the dry ports at stopping points and other bad habits are remaining (see the photo below).

To protect interests of shippers and promote increase of users using multimodal transportation, the domestic commerce customs and the system should be internationalized and for this purpose, (i) primary transport operators (in this case a shipping company or forwarder) should establish transportation systems based on multimodal responsibility from the shipping point to the final destination, and (ii) application of multimodal fare (through rate) system and issuance of multimodal transport document (through B/L) are needed.

Unpacking Inspection at Dry Ports (Islamabad)

b. Port Facilities under International Competition

・Geographical Characteristics

The five ports in Iran and Pakistan are lined up from the mouth of the Hormuz Straight (at latitude 26° north), namely, Qasim Port (about 620 miles to the east), Karachi Port (about 593 miles to the east), Gwadar Port (about 343 miles to the east), Chabahar Port (about 237 miles to the east), and Bandar Abbas Port (about 97 miles to the west) in the Persian Gulf through the entrance of the Strait of Hormuz. Further, Iran has Bandar Imam Khomeini Port (about 594 miles to the west) in the depth of the Arabian Gulf. On the opposite side of Bandar Abbas, Dubai Port which is a large hub port held by U.A.E. (about 173 miles to the west) is located. The scales of the ports are summarized in Table 2.23.

For Iran and Pakistan, the existence of Dubai port handling twice or more cargos than the container handling capacity of both countries is great. Substitution of the hub functions by their own ports is a strategically important part of developing Chabahar Port or Gwadar Port located in the east of the Persian Gulf. Especially, many of the container cargos to the Bandar Abbas Port are imported by the feeder service from the Dubai Port on the opposite side, and the harbour authority of the Government of Iran expects many of the main ships, circulating among the hub ports, to come to Chabahar Port.

Table 2.23 Scales of Ports around Iran and Pakistan

Country	Iran			Pakistan		
Port	Bandar Abbas	Chabahar	Bandar Imam Khomeini	Karachi	Port M. Bin Qasim	Gwadar
Berthing Facility	P Q Y G C R	Y G C	P Q Y G C R	P Q Y G C R L	P Q Y G C	P Y G C R
Number of Berth	24	4	37	33	11	4
Berth Depth (m)	-5.0～13.5	-8.3～9.0	-10.0～14.0	-7.3～13.7	-6.0～11.5	-13.5～14.5
Cargo Volume (,000 ton)	37,246*4	1,712*5	29,061*2	38,732*5	25,023*5	-
Container (,000 TEU)	1,812*4	16*5	120*3	1,250*5	681*5	-
Ship Call (per Year)	3,544*4	102*5	-	2,386*5	1,238*5	-
Country	**India**		**U.A.E**		**Saudi Arabia**	**Oman**
Port	**Mumbai**	**Jawaharlal Nehru**	**Abu Dhabi**	**Jebel Ali**	**Dammam**	**Salalah**
Berthing Facility	P Q Y G C R L	P Y C R	P Q Y G C R L	P Q Y G C R	Q Y G C R	P Q Y G C R L
Number of Berth	64	8	21	31	39	13
Berth Depth (m)	-6.1～14.3	-13.5	-4.7～13.3	-10.7～15.0	-7.3～13.1	-12.0～16.0
Cargo Volume (,000 ton)	51,876*5	57,280*5	130,000*5		19,270*5	3,722*5
Container (,000 TEU)	92*5	4,180*5	11,830*5		1,227*5	3,494*5
Ship Call (per Year)	5,620*5	-	16,000*5		2,130*5	3,719*5

Remarks ;

*1 Berthing Facility : P/Petroleum, Q/Other Liquid bulk, Y/Dry Bulk, G/General Cargo, C/Containers, R/Ro-Ro, L/Cruise

*2 Actual Performance in 2004-2005

*3 Actual Performance in 2006

*4 Actual Performance in 2007-2008

*5 Actual Performance in 2008-2009

・Harbor Services of an International Level

Major ports of each country require services of an international level as part of the international logistics network. For this purpose, Karachi Port KICT (managed by HPH) and Karachi Port QICT (managed by DPW) give long-term concessions by open tender to overseas shipping companies and operators, and often commission management for a limited time period. Iranian Ports are not the exception. As mentioned above, Iran has suggested introduction of private capital in management of each private terminal since last year. (see 2.1.2.4).

The ratification of international conventions on marine transportation is actively pursued by Iran and Pakistan from the viewpoint of developing their own marine industry, and the situation is favourable.

Table 2.24 Memberships in Maritime Conventions (as of October 2009)

●;accession, ratification, etc. ×;denuncia-tion	IMO Convention 48	IMO amendments 91	IMO amendments 93	SOLAS Convention 74	SOLAS Protocol 78	SOLAS Protocol 88	LOAD LINES Convention 66	LOAD LINES Protocol 88	TONNAGE Convention 69	COLREG Convention 72	CSC Convention 72	STCW Convention 78	SAR Convention 79	STP Agreement 71	STP Protocol 73	IMSO Convention 76	INMARSAT OA 76	INMARSAT amendments 94	INMARSAT amendments 98	FACILITATION Convention 65	MARPOL 73/78 (Annex I/II)	MARPOL 73/78 (Annex III)	MARPOL 73/78 (Annex IV)	MARPOL 73/78 (Annex V)	MARPOL Protocol 97 (Annex VI)	London Convention 72	London Convention Protocol 96	INTERVENTION Convention 69	INTERVENTION Protocol 73	CLC Convention 69	CLC Protocol 76	CLC Protocol 92	FUND Convention 71	FUND Protocol 76	FUND Protocol 92	FUND Protocol 2003	LLMC Convention 76	LLMC Protocol 96	SUA Convention 88	SUA Protocol 88	SALVAGE Convention 89	OPRC Convention 90	OPRC/HNS 2000	ANTI FOULING 01
Japan	●	●		●	●	●	●	●	●	●	●	●	●			●	●	●	●	●	●	●	●	●	●	●	●			×	●	●	×	●	●	●	×	●	●	●		●	●	●
Afghanistan											●															●														●	●				
India	●	●	●	●	●		●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●			●		×	●	●	●	×	●	●		●		●	●	●		
Iran	●	●	●	●	●	●	●	●	●	●	●	●	●			●	●		●	●	●	●	●	●	●		●	●				●			●				●	●	●	●	
Kazakhstan	●			●	●	●	●	●	●	●	●	●									●	●	●	●	●		●			●										●	●				
Kyrgyzstan																																												
Pakistan	●	●	●	●	●	●	●	●	●	●	●	●	●			●	●		●		●	●	●	●		●		●	●			●							●	●		●		
Tajikistan																																								●	●				
Turkmenistan	●			●			●		●	●		●									●	●	●	●						●		●							●	●				
Uzbekistan																																								●	●				

2.2.3 Issues on the Development of Broader Area Transport Infrastructure in Subject Area

The government of Pakistan signed its first transit trade agreement with the Government of Afghanistan to facilitate Afghanistan's foreign trade in 1965. This agreement, which is known as the Afghan Transit Trade Agreement (ATTA), allows both the contracting parties the freedom of transit to and from their respective territories. Five transit routes are available to Afghanistan for transit trade from Pakistan under ATTA. These include;

1. Peshwar~Torkham and vice versa
2. Chaman~Spinboldak and vice versa
3. Ghulam Khan Kelli
4. Port Qasim
5. Port Karachi

The UN brokered ATTA enables landlocked Afghanistan to import goods through ports in Pakistan without paying custom duties, dues or charges of any kind on transit traffic, except charges for transportation and the cost of services rendered. Even the railway freight, port and other dues, as per agreement, are subject to the most sympathetic consideration and have to be no less favourable than applicable on goods owned by Pakistan's own nationals.

However, over the years, the Afghan transit trade which has been facilitated by Pakistan since 1965 and ECO countries since 1997, has been massively abused by the unscrupulous elements to import products only to push most of them back into Pakistan clandestinely through the 2,400 km long Pakistan-Afghanistan porous border.

The stability of not only Afghanistan but also the surrounding countries is indispensable to building peace in Afghanistan and the surrounding area. Broad area transportation infrastructure would revitalize the movement of people and goods in the area, promote free trade and investment, and help create industries by linking the development potential of the countries. The development of the broad area transportation infrastructure, namely Afghan Transit, would be the best solution for this issue and also would be the brake on the illegal transport as mentioned above.

The development plan for road, railway and port sectors are actively expected by various countries and many international donors, hence, the insufficient current conditions would be improved gradually and be improved sufficiently at some future time. Priorities of urgent issues are development of customs clearance, mutual linking system and/or education such as software. Especially, education of officials for customs clearance is the most essential issue because the improvement of hardware does not effectively lead to efficiency.

Regarding the future plans for railways, subject to the neighbouring countries of Afghanistan, the railway development in Afghanistan is not sufficient. However, the Ministry of Public Works intends to emphasize development of railways in cooperation with the surrounding countries in the future. Meanwhile, it is necessary to rely on the road mode to transport freight and passenger for the time being because of the high cost of development and uncertainty of transport schedule by railways, and it is also a realistic decision.

On the other hand, the development of ports would strengthen the junctions of the main routes of the distribution network, and this is important and necessary. Current issues should be verified based on understanding of physical distribution flow and traffic section and which mode is more appropriate, construction of railway lines with long term view point or widening development of existing road ways.

The major ports to be developed are the 5 ports of Karachi, Qasim, Gwadar (Pakistan), Bandar Abbas, and Chabahar (Iran). The physical distribution of discharge from these 5 ports is affected by the maintenance condition of the road and railway infrastructures until the major destinations including northern CIS countries, implement actions regarding its efficiency.

For the short term, the physical distribution will be developed by road maintenance and development of junctions with railway lines. For the middle and long term, comparison would be required between railway construction and maintenance of existing railway lines and road development.

The proposed transit network will promote revitalization of economic and industrial activity in Afghanistan and the countries surrounding it by construction of corridors for swift and smooth movement of people and freight to reduce logistics costs and expand the scope of movement. The transit network will help to provide an environment conducive to exploiting the potential for growth in the entire region. It will facilitate development of the energy and mineral resources in the region, development of resource-processing industries, tourism and trade, and agriculture.