

The Study for Broader Area Transport Infrastructure Development in Afghanistan and the Surrounding Countries

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The importance of broader area transport infrastructure has been recognized for peace building of conflict affected countries. The peace building of Afghanistan needs stability of not only Afghanistan itself but also that of surrounding countries. One of the key elements to ensure stability is broader area transport infrastructure which contributes sustainable economic growth by revitalizing the movement of people, technology and goods.

This paper outlines a vision for future and extract issues in building wide area transportation network referring to a related study of JICA. Reviewing related policy and assistance projects of other donors and so on, this study identifies the current situation and important issues of wide area transport infrastructure development. As a result of the study, a regional transport development scenario to spur the regional economic development is presented showing possible promising corridors.

Key Words : *Afghanistan, cross-border infrastructure, peace building, promising corridors*

1. BACKGROUND

The sustainable peace, stability and economic prosperity of Afghanistan and neighboring countries are the vital issues recognized by international society. Afghanistan is a historic and geographical crossroads. It is also a landlocked country surrounded by eight countries: Iran, Pakistan, Kazakhstan, Uzbekistan, Tajikistan, Kyrgyz, Turkmenistan and China. Those countries except Kyrgyz have national borders with Afghanistan and have influenced each other economically, historically and politically. Therefore, the peace, stability, and economic prosperity of Afghanistan strongly relates to those of the surrounding countries and vice versa.

To address these issues, the necessity of wide area support for those countries has been discussed recently. It is stressed that the solution is not only for the Afghanistan but also for neighboring countries. As an approach for wide area support, promotion and maintenance of the cross-border transport beyond the boundary of Afghanistan and the neighboring countries is highlighted. The issues of cross-border transport finally leads to development of trade corridors.

Asian Development Bank(ADB) has actively implemented the transport sector assistance projects for this area through the Central Asia Regional Economic Cooperation (CAREC). In

the “Transport and Trade Facilitation Strategy 2008-2017”,¹⁾ stated by CAREC, six important corridors and specific action plans are proposed to be invested. This strategy, however, does not include oceanfront countries such as Iran, Pakistan and India and nor taking into consideration port transport. As a base of the six corridors selection, ADB also assesses 52 corridors which have connection with the ports of Iran and Pakistan.²⁾ On the other hand, this assessment does not view India. Both of them focus on the vertical corridors(North and South).

JICA conducted a research study for broader area transport infrastructure development in Afghanistan and the surrounding countries.³⁾ This research study comprehensively reviews the previous proposals and assessments, more focusing on oceanfront countries (Corridor 1 and 2). Further, this study also assesses the horizontal corridors (East and West) from India to Iran through Pakistan and Afghanistan (Corridor 3).

This paper reports the result of the study of JICA. The next Chapter introduces the outline of the study. In Chapter 3, the current situations in the subject area and the possible solutions with future perspective are described. Chapter 4 proposes the images of promising three corridors with issues. Chapter 5 devotes to reorganize common tasks in developing Afghanistan Transit.

2. OUTLINE OF THE RESEARCH STUDY

(1) Purpose of the Research Study

Viewing present situation of Afghanistan and the neighboring countries, the research study aims to recognize the current condition, important notices and issuers of wide-area transport infrastructure development and to find a future vision for transport sector in this area.

(2) Covered Area and countries

This research study covers Afghanistan and surrounding countries, including Iran, India, Uzbekistan, Kazakhstan, Kyrgyz, Tajikistan, Turkmenistan and Pakistan.

(3) Approach and methodology

a) Approach of the research study

This research study takes the following approaches :

The first approach is to consider that economic development leads to security stability. It is acknowledged that security stability and economic development are interdependent. The security stability, however, is more complicated and related with political, military and international affairs among and with other countries. Another reason is that other studies of JICA⁴⁾ and other institutes⁵⁾ cover the security stability issues considering those factors.

Second, other three viewpoints are taken. One is swift, smooth and safe cross-border traffic by creating transport infrastructure network linking of Afghanistan with the surrounding countries. Another point is sustainable economic development in the subject area by strengthening existing industries and possible new industries. The other is integration of facilities, management, systems and procedures.

b) Methodology

The research study is preceded by literature reviews and

Table 1 Visited Countries and Organizations

Visited Countries	Organization
Afghanistan	Ministry of Public Works Ministry of Commerce and Industries Ministry of Finance In-country local Office of WB, ADB and USAID
Pakistan	Ministry of Communications National Highway Authority(NHA) National Transport Research Centre Karachi Port Trust, Customs Office, Ministry of Rail
India	Ministry of Shipping, Road, Transport and Highway
Iran	Ministry of Economic Affairs and Finance Road and Transportation Bureau
Philippines(ADB)	Transport and Communication Division(South Asia, Central and West Asian Department)

interviewing to related officials by visiting the subject countries. Table 1 shows the visited countries and organization. In Table 2, questions and discussion topics are shown.

Table 2 Questions and discussion topics

Target Countries	Major Item	Minor Item
①Iran ↓ ③④ Pakistan ③ Islamabad ④ Karachi ↓ ⑤ Afghanistan ↓ ⑥India	Mid-Long Term National Road Development Plan	-Government proposed road development plan (Priority area, route etc.) -Supposed international donors. (Fund resource)
	Current Status on International Donors & Overseas Assistance	-Ongoing project info. -Future plans
	Road Administrative Issues	-Organizations/Systems for road policy -Budget source -Existing driving license system and ownership ratio(percentage) -Education/instruction for safety driving
	Road Type etc.	-Road type (category) -Road distance in each road type(km) -Road design/regulation speed in each route -Pavement ratio -Lane numbers
	Road Regulation/Standard etc.	-Road standard -Existence of self road standard/regulation or reference other countries' standard
	Current Status on Road Development & Maintenance(Budget Issue)	-Budget for road development -Budget for road maintenance -Current status on road maintenance -Type & numbers of road construction/maintenance machines
	Current Status on Road Safety Issues.	-Vehicle possession numbers (in each type) >>Info. for large-size car/small-size car/two-wheeled vehicle should be collected at least. -Traffic accident numbers; fatalities, casualties, numbers of accident/annual accident number etc. -Movement of people -Freight transportation -Traffic volume on each type of vehicle
	Cross Border Agreement Issues.	-Cross border agreement with neighboring countries. -Contents of agreement
	Cross Border Facilities etc.	-Custom procedure, quarantine and immigration procedure -Existence of Free Zone, accommodations etc. -Freight inspection facility
	Border-Crossing Procedure	-Procedure flow -Necessary documents for cross boarding -Appellation controllee (certificate of origin) -Tariff & fee -Necessity for freight transshipment -Average waiting time for cross boarding -Current measurement on prevention of smuggling, narcotics etc. -Concrete countermeasures against terrorist attacks, if any
②/ADB Philippines	Intermodal Issues	-Current status of traffic inter-modal connecting area (zone) such as Inland Container De Pot.
	Types of Road Disaster	-Road disaster prone area & disaster type -Countermeasures against road disasters
	Road Development Assistance Plan for Target Countries.	-Future Assistance Plan by CAREC for each country
	Traffic Volume in Major Corridors in Target Countries	-Traffic volume in mail highways other than Asian Highway(AH), routes -Traffic volume in each AH routes
	Data for Traffic Demand Forecasting in Target Countries	
	(Unified) Custom Procedure Format for Cross Boarding	

Source of table 1,2: from the research study

3. CURRENT SITUATION

(1) Current Status of Subject Area

The subject countries of this study are mainly agricultural countries and some of them have very high level of mineral resources production. CIS countries and Iran especially produce petroleum, natural gas and other forms of energy. In Afghanistan, a recent study by USGS found new potential of natural gas and oil reserve, too.⁶⁾ India and Pakistan have great population and abundant in labor forces. Both countries have huge potential of goods consumption, too. Therefore, the countries in the subject area have much potential for economic development by trading of resources and processing them.

As a matter of fact, however, the economic activities and development are low in the subject area less than expected. Economic development is considered a key factor for regional stability in terms of fostering mutual understandings, trust relationship and poverty reduction, but the economic development is not fully proceeded. Its various growth potentials have not been fully realized. Despite that trade promotion is inevitable for the economic development, it is limited and its potential also is not exploited in the subject area.

Although one reason is the security instability, there are two more factors to impede the trade development. One impediment is insufficient physical infrastructure: both of transport and cross border facilities. The other is a kind of software such as procedures, system and mal business practice (corruption etc.) for cross border trade.

Even in road infrastructure, the present situation is not satisfactory. In Afghanistan, five Asian highways are designate but there are no Primary roads and most of them are Class II based on the Intergovernmental Agreement on the Asian Highway Network, 2004. In Kyrgyz the pavement rate of the trunk road is 17%, whereas in Uzbekistan, comparatively roads are in good condition, Class I road are AH5, a part of AH7(border of Kirgiz to Kokand) and AH62(Samarkand and Guzdar) only. In India, national trunk road have limited capacity, for instance, 59% national trunk road is two lanes.

Furthermore, the ports and railroads in the area also have problems. The port of Chabahar in Iran, Bin Qasim and Gwadar in Pakistan have limited capacity in terms of the number of berths and container terminal handling capacity. The railroad is not developed in Afghanistan and the railroad in Pakistan needs more maintenance and upgrading. The rail gauge difference among the subject countries also exists as a notable problem in railroad sector: two broad gauges (1,520 mm in CIS countries and 1,576mm in Pakistan) and standard

gauge (1,435mm in Iran).

The software problems are introduced by Aziz(2007) as impediments to trade dividing three categories. They are trade policy, border management and transport sector⁷⁾. He stresses these impediments are more important than geographical distance and destination markets. In addition, specifically in Afghanistan, it is raised as a impediment that several ministries involvement in transport and trade sectors causes inefficiency and onerous procedures.⁸⁾

From the current situation, a sequence for regional stability is identified. Regional stability needs sustainable regional economic development. The economic development needs trade development. For the trade development, wide area transport infrastructure shall be developed with improving software.

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

It is not easy to achieve the trade development for the economic development in the subject area. It is necessary to solve the problems referring to the above impediments for trade development. This section discusses the possibility of the wide area transport infrastructure development focusing on the transport corridor development which leads to trade development and finally economic development.

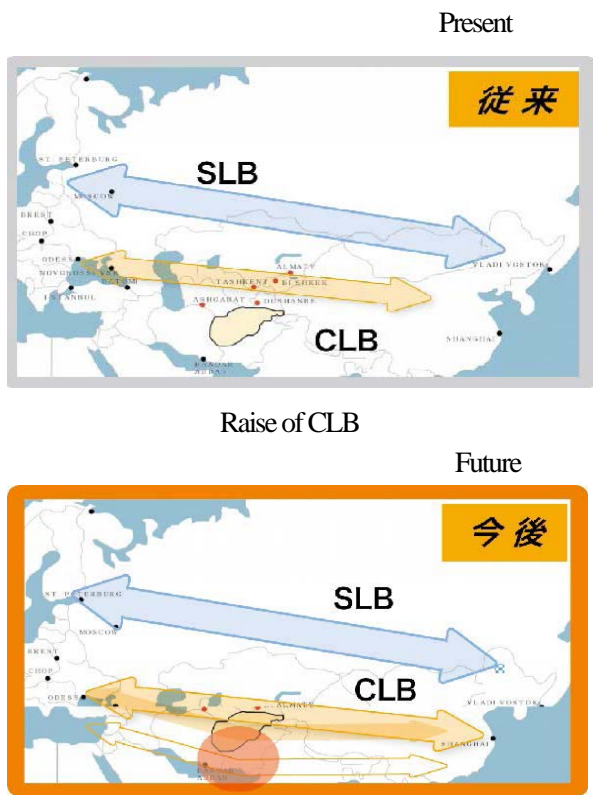
The wide area transport development seems to be possible to see the recent dynamic actions of ECO(Economic Cooperation Organization) consisting of eight countries in this area and Turkey and Azerbaijan. In the ECO framework, banks, transport companies and insurance companies have been established for trade and economic development and several related agreements, minutes of understandings and charters have been discussed and signed.⁹⁾

Second, the economic development potential itself by the wide area transport infrastructure development can not be ignored as an attractive factor for the subject area: Logistics revitalization by the corridor development can result in trade promotion(export s and imports of intra-area resources and materials). The facilitation effect of connecting technologies, people and markets besides goods is noted in the subject area, too. It is also expected that trade promotion and the above connecting facilitation will encourage new economic activities. Furthermore, it can be pointed out that the economic development of the inland and landlocked countries will contribute to oceanfront country hinterland expansion.

Third, ADB estimates significantly support the potential mentioned above. Once the transport corridors are developed, -Total regional trade will increase by 160%.

- Combined transit trade will grow by 113%.
- Combined GDP of the region increase by 5% annually during the initial five years.

Forth, this study pays attention to development potential of south side of the China Land Bridge (CLB) as a drive for the corridor development in this region. The CLB connects East Asia and Europe with transport distance advantage against Siberian Land Bridge (SLB). As China and India expand economic activities, cargo volume increase possibility rises expecting its route shift to south. The area along with possible southern route of the CLB through Afghanistan is expected as a high development potential area. This route can also enjoy the use of active port in Iran and Pakistan. Figure 1 illustrates this CLB southern shift image.



Source: This research Study Report

Fig 1 CLB Expansion (Continental Transit Corridor)

(3) Need to Develop Afghan Transit

The previous section presents the importance and possibility of transport corridor development in the context of wide area transport infrastructure development. The next issue is what corridor should be highlighted among the possible and proposed corridors. An attention should be paid to significance of developing Afghan transit corridors.

The most important significance is economic development benefit to Afghanistan. Through the transit logistics routes development, economic development is highly expected for

contributing to Afghanistan's sustainable stability which is critical for the regional stability.

ADB also estimated that Afghanistan's export will increase by 202% and import will increase by 54% during the initial five years by the transit corridor development. It is noteworthy that the corridor development is expected to create new job by 771,000 in Afghanistan. This job creation is vital to Afghanistan long term economic and political sustainability with security implication for the subject area.

The next important point is promotion of connecting CIS countries and the Arabian Sea, and revitalization of trade among Iran, India and Pakistan. The Afghanistan transit corridors inevitably are selected to connect CIS countries and ports of Pakistan (Karachi, Qasim). Seeing Table 3, CIS countries have the Afghanistan bypassing route, which is through Turkmenistan and connects their capital cities to port of Iran (Bandar-Abbas). This alternative corridor of Afghanistan transit one has a distance advantage compared with most Afghanistan transit corridors. However, those countries also realize a risk of depending on a single corridor.

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.

Table 3 Distance from the Port Bndar-Abbas and Karachi

Capital City of CIS	Distance from the Port Bndar-Abbas (Km)			Distance from the Port Karachi (Km)		
	Via Turkmenistan (Alternative route of Route 2B)	Via Afghanistan			Via Afghanistan	
		Via Kabul, Kandahar and Heart	Via Kabul, Kandahar and Zaranji	Via Heart (Route 2B)	Via Peshawar (Route 1A)	Via Quetta (Route 1B)
Almaty	3,600	4,610	4,020	3,810	4,010	3,380
Tashkent	2,730	3,730	3,175	2,930	3,345	2,720
Dushanbe	2,940	3,730	2,970	2,680	2,660	2,040
Bishkek	3,270	4,330	3,750	3,530	3,730	3,100
Remarks	Route 1A, 1B and 2B are shown on the Figures 2, 3 in Cap. 4.					

Source: Arranged by this research study based on "Trade and Regional Cooperation between Afghanistan and its Neighbors"¹⁰⁾

4. FUTURE IMAGE OF TRNSIT NETWORK IN AND AROUND AFGHANISTAN

This chapter, from the review, assessment and discussions of the previous Chapter 3, reorganizes three Afghanistan transit corridors as a future vision. In this corridor selection, the fol-

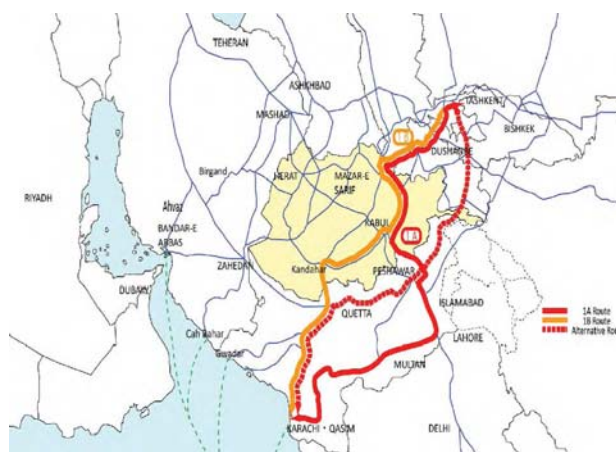
lowing viewpoints are taken: the economic features, potentials, issues and socio-economic impacts of development in each corridor as well as perspectives of the subject countries concerned to each corridor. Fig 2, 3 and 4 show the these three corridors. Table 4,5 and 6 present the issues, potential and regional economic effect of each corridor related country by country.

(1) Corridor 1:

a) Brief summary of the corridor

This Corridor is mainly for road transportation, starting from Uzbekistan and Tajikistan through Afghanistan connecting these countries to Karachi/Qasim port in Pakistan. The corridor is a transit hub of the trade between Afghanistan and Pakistan, and more than 5,000 trucks, both formal and informal traffic, are supposed to come and go everyday. On the other hand, it is mainly a local oriented corridor, not functioning as a linkage between the China Land Bridge and the Central Asian countries to Karachi/Qasim port or newly developed Gwadar port. The development of this corridor enables 32 hour-long travel, at shortest, between Karachi and Tashkent via Afghanistan (President Karzai speech in a summer 2005 visit to the United States, at the Central Asia-Caucasus Institute). Moreover, if the relationship between India and Pakistan is improved, it will be possible to access to the Indian market through diverging from Lahore to the corridor 3. In future, by networking between the inland countries depending on monoculture economies and the two populous countries, Pakistan and India, it is expected that new industries, such as processing industries, will be created along the network area. Regional trade of agricultural products in

Afghanistan will be expanded as well.



Source: from this research study

Fig2 Coridor 1: Kyrgyz, Tajikistan, Afghanistan and Pakistan

b) Issues in activating the corridor 1

- There are several issues for activating this corridor.
- The Karachi/Quetta route is mainly low-cost pavement. If security is improved, there will be a need for road rehabilitation (West Route).
- Road construction in some sections is proceeding (in the Peshawar/Wakhan Corridor). Road maintenance is a serious issue because the route passes through steep mountains(Pamir and Hindu Kush).
- Development of regular road rehabilitation and maintenance capabilities (in Afghanistan and Tajikistan).
- Development of road-related facilities along the route (refueling, vehicle repair and tune-up services, rest facilities, especially in Afghanistan)

Table 3

Country	Issues	Potential	Regional economic effect
Kyrgyz Tajikistan	Narrow domestic market; dependent on imports of raw materials for processing; depends on primary product trade, monoculture economy	Rare mineral resources, potential for agri-business; hydropower generation utilizing abundant water resources;	Development of exports to great consumption areas of China and India; growth achieved by stimulating logistics and value-added trade
Afghanistan	Domestic security, trade deficit; depends on assistance, need for improvement of governance, poverty reduction; relatively large informal sector, weak manufacturing	Develop extraction business, export of agricultural products; provide transit functions for regional trade	Growth as a trading country providing transit-hub functions; by export of Afghan products, opening up closed areas to the world; facilitate flow of people and information
Pakistan	Need for balanced development of domestic economy; effective utilization and expansion of Karachi/Qasim and Gwadar ports; need to end conflicts with India	Creation of industry taking advantage of high concentration of human resources; fuller utilization of ports (Karachi, Qasim and Gwadar); expansion, stimulation of trade with the Central Asia	Growth by expanded markets (for cotton products and wheat); advantageous procurement of cheap consumer products and intermediate inputs; contribution to development of areas to the north

Source: from this research study

(2) Corridor 2:

a) Brief summary of the corridor 2

This corridor is mainly composed of routes for railroads, starting from Uzbekistan, going through Turkmenistan and

Afghanistan. It arrives at Bandar-Abbas port and Chabahar port in Iran. The present main route of the current corridor is an alternative route bypassing Afghanistan. The route 2A connecting to Chabahar through Afghanistan, however, shortens travel distance by about 500km. It makes sense that utilize the railway network in the Central Asian countries constructed in the former Soviet Union period and expanding highly developed Iran railway network. They will promote the industrialization of the Central Asian inland countries. They will contribute to regional division of industries and cooperation related to energy and natural resources, too. Also, for the Central Asian inland countries depending on a trade of energy and resources to and from Russia and other CIS countries, diversification of trade partner and sources of energy can be achieved through this corridor development. It is emphasized again that this corridor connects international ports such as Bandar Abbas and Chabahar, Iran. This would influence to sustainable economic development in these countries.

b) Issues in activating the corridor 2

Issues for activating this corridor are:

- Uncompleted road rehabilitation in the northwest section of the ring road in Afghanistan (Herat-Andkhvoy located

on the route from Mazar-e-Sharif) due to remaining security issues.

- The limited railroad development only at the border section of Hairatan in Afghanistan. The task is to establish construction, management and maintenance organization along the route and human resources development.
- Road rehabilitation between Dilaram and Zarang
- Improvement of road maintenance capacity particularly in Afghanistan



Source: from this research study

Fig 3 Corridor 2: Uzbekistan, Turkmenistan, Afghanistan and Iran

Table 4

Country	Issues	Potential	Regional economic effects
Uzbekistan	Need to diversify trade partners; need for industrialization utilizing abundant natural resources (metals, cotton); need to overcome transportation disadvantages as a land-locked country	Abundant mineral resources and production of natural gas; should enable acquisition of foreign currency by diversification of resource export market.	Procurement of capital goods required for modernization of industry; route for conveying overseas technology; improve competitiveness by reducing long-distance transportation costs for exports to South Asia and other parts of the world
Afghanistan	Domestic security, trade deficit; dependence on assistance; need to improve governance; relatively large informal sector, weak manufacturing	Develop extraction business, export of agricultural products; provide transit functions for regional trade	Growth as a trading country with transit-hub functions; Development from export of Afghan products; Open up a closed area to the world (facilitate flow of people and information)
Turkmenistan	Dependence on trade in primary products and monoculture economy Need to move away from closed and controlled economy	Develop chemical complex, plant industries, and material industries; natural gas development; exploit demand for infrastructure construction	Coordination of transportation between Caspian Sea Route and Afghan Transit
Iran	Need to move away from closed and controlled economy; need to develop economy of underdeveloped Baluchistan area	Abundant petroleum and natural gas; Diversification of industry into cars and home electric products; Develop infrastructure network with eight countries on border and for economic development inside the country	Economic growth in Baluchistan area by developing Chabahar Port and inland area, resolution of narcotics and refugee issues; exert leadership within the ECO area

source: from this research study

(3) Corridor 3:

a) Brief summary of the corridor 3

This Corridor starts from Iran, via Afghanistan and connects to Pakistan and India. This corridor 3 is newly raised besides the already identified North-South corridors. This corridor seems to be more promising in the future. Recently, sea transportation use was dominated in trade between Iran

and India. But building a land transportation network connecting these countries realizes more efficiency for industrial products trade especially with high value such as medicines. It is expected to create efficiency for new industrial development along the corridor, too.

Furthermore, despite the political tension, the trade between India and Pakistan has rapidly increased recently. In

2009, it was estimated that there was USD 1 billion in formal trade and at least twice volume of informal trade compared with the formal trade. Although the current main route is the sea route, it is expected that 10 billion-dollar-scale-logistics will develop between India and Pakistan if the border would be fully opened. The logistics has a possibility to expand to Iran and further western countries. In the case of connection between Delhi, India and Teheran, Iran, about 500km (about 25 % of total distance) of logistics will be streamlined compared with the sea route via Mumbai. This can utilize road and railroad infrastructure in Iran, Pakistan and India, which is a land route and has already been developed for about 2/3 of the corridor.

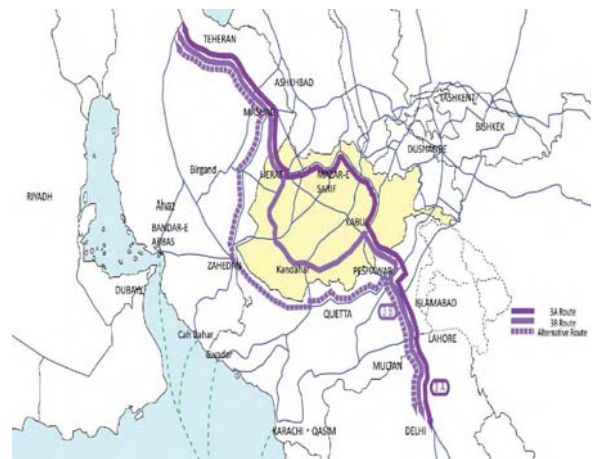
b) Issues in activating the corridor 3

Although the corridor 3 has a significant future development possibility, the following issues are clarified.

- Uncompleted road rehabilitation in the northwest section of the ring road in Afghanistan (Herat-Andkhvoy) due to remaining security issues.
- The limited railroad development only of the border section Herat in Afghanistan. The task is to build railways along the route; to do this, management and maintenance

organization must be established. Human resources will have to be comprehensively developed.

- Road maintenance including disaster-prevention, at Khyber Pass, and alignments in railway construction plan
- Road improvement in Baluchistan area (road is underdeveloped due to bad security situations)



Source: from the research study

Fig. 4 Corridor 3: Iran, Afghanistan, Pakistan and India

Table 5

Country	Issues	Potential	Regional economic effects
Iran	Need to move away from closed, controlled economy; need for economic development of underdeveloped Baluchistan Area	Abundant energy (petroleum, gas, etc.); should be able to diversify industry to produce autos and home electric products	Promotion of business at Chabahar port and in interior for business growth in Baluchistan; resolution of refugee issues Export of energy and high-value-added products to major markets
Afghanistan	Domestic security, trade deficit; dependence on assistance, need for improved governance, poverty reduction; informal sector is too large; weak manufacturing	Extraction industry and export of agricultural products; provision of transit functions for regional trade	Growth as a trading country serving as transit hub; development by exporting Afghan products Opening of closed area; enhanced flows of people and information
Pakistan	Need for balanced development of the country; need for more effective use of Karachi, Qasim and Gwadar ports; need to reduce tension with India	Increase added value of products through intra-regional trade ; effective use of Karachi, Gwadar ports	More effective division of labor in light industry; growth of market for cotton products and wheat; Easier procurement of capital goods and materials for heavy industry; Stabilization by promoting the economy of Baluchistan
India	Need to reduce tension with Pakistan; shortage of infrastructure for electric power generation, ports, railways and roads; majority of citizens are poor.	With population of 1.1 billion; economic growth can be driven by domestic demand.	Energy and energy-related products can be more easily obtained; growth in export of high-value-added manufactured goods and medicines; lower costs in procuring materials required for national development

Source: from this research study

5. COMMON TASK FOR AFGHANISTAN TRANSIT CORRIDOR DEVELOPMENT

In the Chapter 4, three corridors are introduced with specific issues related to the each corridor. This chapter tries to present integrated issues for Afghanistan transit corridor development as common task to be addressed.

The common task is reorganized as three groups of categories. One is the group of the corridors and border-

related facilities. Another relates to border control procedures. The other is infrastructure management system and insurance system. Later two groups are a kind of software problems.

In Fig 5, these issue groups and their structure are depicted. The three issue groups have interdependent relations and show an important implication. That is necessity of integrated approach combining physical and software issues as the common task.

Common tasks in developing Afghan Transit :



Source: from this research study

Fig.5 Common task for Afghanistan Transit corridor development

6. CONCLUSION

This research study recognized importance of transport corridors development in the subject area., which consists of Afghanistan and the surrounding countries, for regional trade promotion. The trade promotion leads to economic development as a condition of regional stability promoting connection of people, technology and goods in addition to industry vitalization. Among possible transport corridors, three corridors were identified as a future vision focusing on the Afghanistan transit routes.

Two of them are vertical(North-South) and the other one is, newly presented by this research study, horizontal(East-West). In vertical corridors, the corridor 1 is connecting the Central Asian countries to Pakistan ports (Karachi, Qasim, and Gwadar) through Afghanistan: via Mazar-e-Sharif, Kabul, Kandahar/Quetta or Peshawar/Lahore. The corridor 2, whereas, connects the Central Asian countries to Iran ports(Bandar-Abbas and Chabahar) through Afghanistan: via Mazar-e-Sharif, Herat and Zahedan in Iran. The corridor 3, East to West, is going through Pakistan and Afghanistan: via Lahore, Islamabad, Peshawar, Kabul, Mazar-e-Sharif(using route of via Kandahar) and Herat.

At the same time, issues for those transport corridor development were extracted.. The issues are related to each corridor and integrated ones as a common task for Afghanistan transit corridor development having three categorized groups: physical infrastructure problem and two software problems. The common task implies the necessity of these three group integration.

Addressing and solving those issues are definitely tough work but the conclusion of this study is possible in the light of the case of ECO, highly attractive potential of economic development. ADB's prediction of logistics and employment increase supports this possibility. There are more supporting factors. First the China Land Bride southern shift potential can not be negligible. Second, India economic expansion expects trade facilitation through Pakistan to the Central Asian countries and Iran.

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