

**Transit corridors and their economic benefit for regional trade
improvement: Tajikistan incentives**

by

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To

my children

Akbar and Amira

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June 15, 2016

DECLARATION

I, hereby declare that this thesis titled, “Transit corridors and their economic benefit for regional trade improvement: Tajikistan incentives” is my individual work under the supervision of Professor TSUKADA Shunso. Therefore, I have acknowledged all the sources that I used by following appropriate referencing method.

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Date

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LIST OF ABBREVIATIONS

ABBAT	Association of International Automobile Carriers of Tajikistan
ADB	Asian Development Bank
AH	Asian Highway
BCP	Border crossing point
CA	Central Asia
CAREC	Central Asia Regional Economic Cooperation
CIS	Commonwealth of Independent States
EurAsEC	Eurasia Economic Community
ECO	Eurasia Cooperation Organization
EU	European Union
FEZ	Free Economic Zone
GBAO	Gorno-Badakhshah Autonomous Oblast
GDP	Growth domestic product
GIZ	Deutsche Gesellschaft für Internationale Zusammenarbeit GmbH
ICT	Information Communication Technology
IFI	International Finance Institution
IMF	International monetary fund
KPH	Kilometer per hour
LPI	Logistic Performance Index
MEDT	Ministry of Economic Development and Trade
Mln	Million
NATO	North Atlantic Treaty Organization
NTTC	National Transport and Trade Facilitation Committee
RCA	Revealed Comparative Advantages
SCO	Shanghai Cooperation Organization
SPECA	Special Program for the Economies of Central Asia
TRACECA	Transport Corridor Europe-Caucasus-Asia

UAE	United Arab Emirates
UNESCAP	United Nations Economic and Social Commission for Asia and the Pacific
US	United States
WTO	World Trade Organization
XUAR	Xinjiang Uygur Autonomous Region
UNDP	United Nations Development Program
USD	US Dollar
USSR	Union of Soviet Socialistic Republic

ABSTRACT

**“If you are coastal, you serve the world;
if you are landlocked; you serve your
neighbors” (Collier, 2007)**

Located in the heart of Central Asia, Tajikistan is a landlocked country, which has no access to sea, and it is relatively remote from major markets. This situation makes Tajikistan's potential hard for trade development. Moreover, poor infrastructure that was left from the period of being a member to Soviet Union, lack of appropriate governmental laws and bans towards its neighbors, and insufficient investments worsen the country's economic situation. Tajikistan is a country, which faces significant challenges and tough rivalry by neighboring transit corridors, and it is looking forward to finding ways to improve its transport corridors and multi-modal logistic solutions that would lead it to the significant contribution of increasing its regional competitiveness. This study will undertake the above mentioned aspects in promoting transit corridors of Tajikistan which connects it to the other Central Asian countries, particularly Kyrgyzstan and Uzbekistan, China and Afghanistan. The researcher attempts to determine variables, which have impact on time and cost of the import/export. Thus, first of all in order to identify Tajikistan's strong sectors and export potential, method of Balassa index (1965) has been used with analyzing actual export flows by Revealed Comparative Advantage (RCA). This method's result divided country's export goods into three main groups: Products with improving comparative advantage; products with deteriorating comparative advantage and products with improving comparative non-advantage. Secondly, research includes multiple regression analysis, which shows variables having negative and

positive impact on time to import/export of Tajikistan, and finally, in order to identify the location of the country in the world and show the gap between coastal and landlocked countries, comparative analysis on cost and time of the import/export was calculated. Moreover, for the purpose of showing the challenges of a landlocked country, that has to face barriers to trade and transit, in findings section researcher has calculated the transportation price of a good from the origin country of exporter into the importer country, specifically Tajikistan. Therefore, in order to improve regional trade by means of smooth transportation, in conclusion part some policy recommendations were given.

Key words: Transit corridors, infrastructure, regional trade, CAREC, Central Asia, Tajikistan

CHAPTER ONE

1. INTRODUCTION

1.1 Background of the study

Transit corridors can serve as key channels, improving connectivity, trade and facilitating cross-border movement of cargo in the region. Central Asian countries, which are landlocked and located far from major markets, rely entirely on overland transport for trade operations within the region.

The term “corridor” itself was created to express the trade and accessibility problems of landlocked countries such as Tajikistan. Since then it has expanded the meaning of corridor into promoting global and regional development.

As today’s world focus on Central Asia as a potential to transit destination, it is a matter of importance that businesses were enabled to deliver goods and services on time, cost effectively and undamaged. Together with its neighbors, Tajikistan tries to find ways to improve its transit corridors and multi-modal logistic solutions that would contribute significantly to increase its regional competitiveness. Dealing with the transit infrastructure will contribute to solve many problems not only in Tajikistan, but also in other Central Asian countries, which have similar situation of being landlocked. It must be noted that these are countries with limited domestic markets at the same time not having access to the sea and being relatively far away from major markets. The Central Asian countries experience difficulties associated with low density of the domestic economy and significant economic disunity among trading partners and key markets.

In the long run period the success of economic integration in Central Asia depends on improved communication and cooperation between its regional markets and most major markets such as China, India, Russia and Turkey. One of Tajikistan's most significant roles in this process will be its status of a transit country. This process requires investment and modernization of road corridors. It must be emphasized that, it is necessary to revise the road map messages in the regional road corridor in Central Asia, so that it became the most powerful integrating factor, and had the economic potential to enhance direct and transit trade between Kazakhstan, Uzbekistan, Turkmenistan, Afghanistan, China (XUAR), and Tajikistan. Moreover, along with the improvement of policies and agreements aimed at facilitating transactions, trade and transit at border crossings, which connects the markets of these countries, infrastructure need to be built in the high level.

On the other hand developing countries tend to have higher transport costs compared to developed countries. The result of higher transport costs is poor infrastructure, lack of national transportation networks, long processes on cargo declaration and weak regulation. Landlocked countries suffer most from high transport costs, which can be three times higher than the tariffs on imported and exported goods (Hummels in ADB, 2004). Moreover, each country has its own standards and strategies for cargo movement and trade facilitation. Limao and Venables (2001) calculated that a 10% drop in transport costs increases trade by 25%. At the same time the delays in transport affect significantly the production chain within the production of integrated value chain. During the period of being a member to USSR, Tajikistan had transport networks only with other members of USSR and such countries as Iran, Turkey, China

and Afghanistan, that are current strategic partners to Tajikistan, transport networks were poorly developed or absent. After the collapse of USSR and getting independence Tajikistan like any other Central Asian countries began to seek perspectives of transport networks development with above mentioned countries. It must be emphasized that through these countries the ways to nearest ports and global markets are shorter than through European networks. A clear and facilitated regulation over transit routes could provide the Central Asian countries utilize by maximum roads and railways for smooth cargo movement to its particular destination. A successful implementation on transit corridors in a country, which has similar geographical situation as Tajikistan, is Kazakhstan. Kazakhstan is the largest landlocked country in Central Asia, however economically improved. In order to develop trade and business in Kazakhstan a high standard and qualitative highway connecting Asia with Europe called “West Europe – West China” was built. The length of current highway is 2300 km starting from borders of China to Russia. Taking into account the volume of freight traffic between largest manufacturers of China and significant consumers of Europe, the main purpose of Kazakhstan’s transport policy is the further establishment of Eurasian transcontinental bridge. With the complex network of roads, railways, airways and strategically important port city Aktau on the Caspian Sea, Kazakhstan is able to implement the existing national transit resource for smooth Eurasian transport links.

1.2 Research objectives

General

- To show how successful transit corridors can serve as a link to regional trade and business allowing Tajikistan exit in some extent from being economically landlocked;
- To find out the potential of transit corridors in Tajikistan, particularly for smoother trade flow through them;
- To analyze the ADB's CAREC corridors (in particular, Corridor No. 3, Corridor No. 5 and Corridor No. 6) and their economic benefits from utilization for Tajikistan;

Specific

- To analyze current situation of infrastructure and trade patterns in Tajikistan as a landlocked country;
- To find out how the transportation cost and time affect the trade improvement;
- To show Tajikistan's role of the status of being a transit country among Central Asian and other countries such as Turkey, Iran, China (XUAR) and Afghanistan;
- To describe the influence of transit corridors on other sectors of economy.

1.3 Research questions

In order to achieve the research objectives, the following main questions will be researched:

- How Tajikistan can utilize its transit corridors in order to develop regional trade?

- How transit corridors can serve as a way to decrease time and cost for importation and exportation of Tajikistan?
- How Tajikistan can benefit from ADB's CAREC Corridors?

The following sub-questions will be included during the research

- What are the current conditions and challenges of Tajikistan's transit corridors?
- Why Tajikistan undertrades with its neighboring countries while it overtrade with rest of the world?
- Can Kazakh's model on successful transit corridor "West Europe – West China" be relevant for Tajikistan as well?

1.4 Significance of the study

Geographical location of Tajikistan allows transit in all directions by the shortest routes and use of existing ones and on their basis creates the multi-modal transport corridors, which provide immediate access to the sea ports. Such potential will facilitate the landlocked economy of Tajikistan by opening borders to further destinations. In addition, the cost of transport will be reduced and its efficiency will be maximized in order to facilitate the flow of goods across sovereign borders. Consequently, this study will attempt to find the ways of regional trade development by using transit corridors, existing and future planned corridors as well. It must be mentioned that not many studies were conducted on impact of transit corridors on regional trade facilitation in Tajikistan.

Along with Tajikistan other countries are current members of CAREC 2020 project on economic corridors, which allows Tajikistan to investigate the perspectives, challenges or success that other countries face while implementing the above mentioned

project. As a result, the successes and failures during the implementation of CAREC economic corridors by other member countries will be taken into consideration and counted as recommendation for further utilization of those corridors in Tajikistan. It is worthy mentioning that no studies were made on the results of implementation of CAREC's economic corridors.

CHAPTER TWO

2. LITERATURE REVIEW

2.1 Previous studies on transit corridors

Various studies on international trade and transport costing highlight the importance of infrastructure development of networks for the transit growth and transport cost savings regardless of its being a cross border crossing or a paved road. Higher transportation costs tend to reduce rents earned leading to lower the aggregate investment and saving rates (Radelet & Sachs, 1998; Limao & Venables, 2001). Regional integration agreements and facilities enhance lowering of tariffs and removal of barriers (Asadov, 2012). Due to obvious encouragement of further development of transit corridors, delivering of goods with fewer amounts of stops and delays becomes a critical issue for transit countries. According to the Center for Transit-Oriented Development (2010), there are six major objectives of planning for transit and transport-oriented development, such as guide growth and development; support of regional economic growth; enhance regional and local equity; promote reinvestment and increase spending power; invigorate stakeholder engagement and collaboration; maximize transport-oriented development's potential and benefits. Filani (1978) observed that the socio-economic development of any society depends on a large extent to the nature and structure of transportation network of the society. So, being a landlocked country, Tajikistan's dependence on highly facilitated transportation networks is in a great importance.

In the late 1990s Asian Development Bank's initiative named "Central Asian Regional Economic Cooperation (CAREC) Program" became a prominent club of regional countries and multilateral institutions agreeing to facilitate connectivity of regional businesses, increasing institutional capacities with the aim to accelerate economic growth and poverty reduction (Asian Development Bank, 1991). In a short period of time, CAREC managed to become a major driving force for facilitating regional cooperation and integration mechanisms, mainly due to its readily available resources and clearly structured investments. Following a decade of active involvement in assessment, evaluating, rehabilitating and capacity building arrangements, in 2007 CAREC adopted its new "2008-2017 Transport and Trade Facilitation Strategy". The main directions of strategy are devoted in order to: establish competitive transport corridors; facilitate efficient movement through corridors and across borders; develop sustainable, safe, and user-friendly transport and trade networks. This idea of highly developed transport and trade networks establishment could be efficient if countries of Central Asia were more opened to each other. Current hostile relationship of such countries as Tajikistan and Uzbekistan impede on their domestic and international relations. Development of regional cooperation and regional market could give an opportunity to enter global markets and attract international investments. Moreover, by developing good-functioning regional market transport costs through the transport networks would be cheaper and simpler. According to the United Nations Special Program for the Economies of Central Asia (SPECA), (UNECE, 2015) main trade partners of Central Asian countries remain China, Russia and European Union that show positive trade balance between them. For example, trade between SPECA countries and China was most fruitful as imports and

exports have grown six and eight times respectively. However, trade between SPECA countries was almost increased by three times. It must be mentioned that decades ago trade between them was as much productive as it is now between China and SPECA countries. These results show the initiative of developing regional cooperation in order to establish regional markets and increase interregional trade.

For the countries in Central Asia, the trade transaction costs are extremely high, and the time needed for delivering export and import goods is very long (UN ESCAP, 2011). According to the World Bank Doing Business/Trading Across Border data, the cost to import and export in such countries as Tajikistan, Uzbekistan, Kyrgyzstan and Kazakhstan is around two times higher than the world's average, and the time to export and import is 3-4 times longer (World Bank, 2010). These results contribute to the poor trade and transit facilitation procedures in Central Asian countries which tarnishes their reputation among the world major markets. Government of the Republic of Tajikistan in the face of its president, mainly in his speeches (2011, 2012, 2013, 2014, 2015) claims that Tajikistan must enter global markets and extend its opportunities to integrate into global economy. However, the main point in which countries such as Tajikistan has to pay attention first is to develop regional cooperation and settle the issues with neighboring countries so that it could enter markets - regional and global without barriers and high transport costs.

2.2 Theoretical framework. Theory of International trade

This study focuses on some concepts of the theory of international trade on comparative advantage measuring competitiveness by using RCA. Research includes theoretical framework of comparative advantage of export goods and interpretations on

how transportation costs affect RCA or competitiveness of some industries. In addition, some studies on trade and transit conducted in different countries of the world and Tajikistan will be overviewed.

Despite the fact that International trade theory claiming - countries located close to each other tend to trade more, Tajikistan with its neighbors face problems in cross border territories which slows down the trade between the countries of the region.

Estimations of potential trade using gravity model confirm that the Central Asian countries, relative to their level of income and other individual characteristics, tend to overtrade with the rest of the world, but significantly undertrade within the region (Kurmanalieva & Parpiev, 2008). This situation can be explained as the tense relationships between Central Asian countries which started after the collapse of USSR separating countries “unfairly”. The policy of Stalin giving a part of a country to other country was aimed to make friendly relations between different Central Asian nations but was not accepted well. This policy was the reason of inception of tense and even hostile relationships on identifying territory issues between Tajikistan and its neighbors. However, international trade theory predicts that countries which are located close to each other and are far to the world’s major markets more involved in trade relationships between each other. One of the best examples of above-mentioned theory can be Australia and New Zealand by being far away from European countries and North America. The bilateral trade of these two countries far exceeds of such countries as Spain and Portugal. Thus, it can be expected that countries in Central Asia trade with each other more. However, Central Asia’s trade patterns, particularly its “trade puzzle”, seem to be a result of complex factors such as region’s strong comparative advantage in natural

resource-based exports, and lack of regional integration and trade-conducive policies across the region (Kurmanalieva & Parpiev, 2008).

2.3 Successful experience of Euroregio

Despite the high level of movement of people and goods among Kazakhstan, Kyrgyzstan, Tajikistan, and Uzbekistan, laws governing cross-border movements neither accord preferential treatment to residents of bordering regions nor provide institutional structures that would foster cross-border cooperation. Such laws constitute barriers to deepening cross-border cooperation (Kaminski, Kholmatov, Mitra, & Raballand, 2010). According to the World Bank economists Kaminski *et al* (2010), there is a large potential for growth that lies untapped due to the obstacles to cross-border development activities and proposes adapting the institutional concept of regional cooperation between bordering regions in neighboring countries, modeled after Euroregions, to countries in Central Asian (naming them as Asiaregio). They argue that the model of Euroregio implemented in Asian countries leads to deeper integration among close areas than with the rest of the country and contributes to greater cooperation, closer ties, stronger competition, better management of shared resources and more efficient production.

Another researches on cross-border cooperation in Central Asia conducted by the World Bank (2007, 2008) has shown that the successful experience of European countries on regional integration can be relevant to Central Asian countries. The reason is on policy-making level of Central Asian countries. European countries after World War II began to improve the cooperation between the contiguous areas of Europe and gave institutions the free choice of implementation of pilot projects towards deeper integration

that would improve the cooperation of the whole European territory. The experience of Euroregions shows that they can apply at various stages of integration and do not require a particular depth or scope of existing integration (Kaminski *et al*, 2010).

Moreover, Central Asian countries can adopt some successful strategies that were implemented and developed through decades in EU countries. Such as:

- Implementing economic activity in any territory and across the borders of Euroregion, which is supported and strengthened legally. This step lead to promote small and medium business, facilitation of transport and trade, environmental protection and cultural exchanges;
- Implementation and promotion of regional development programs in order to fund most regional initiatives;
- Strong support and willingness of state authorities and for cross border cooperation among the region and cross border projects.

It should be noted that the last factor for developing Euroregion is the most significant and important in case of current related issues for forming an Asiaregion model of regional cooperation.

Following the successful model of Euroregion by Central Asian countries could improve regional cooperation that would lead to more extended cross-border relations and further to development of existing transit corridors and creation of new ones.

2.3.1 Carnet de passages en Douane system

Carnet de passage or customs coupons book is an international customs document

established by Customs Convention on the temporary importation of vehicles used for commercial purposes from May 18, 1956. On its basis temporal import and export of foreign vehicles is carried out and controlled, without providing guarantees for payment of customs taxes and fees, in and out of the countries which require submission of the documents. Implementation of Carnet de Passage allows avoiding additional costs, significantly reducing the downtime of vehicles in the borders during the customs formality arrangements and, ultimately, reducing transport costs. Carnet de Passage is issued for each vehicle. In order to get Carnet a deposit must be paid which is a guarantee that the vehicle will be removed from the foreign territory not exceeding the time limit. The deposit will be returned after the Carnet is discharged (Uncover the world, 2009). Validity of Carnet is one year from the date of issue. Each sheet of Carnet de Passage is used for one entry / exit of the vehicle to the country, to which Carnet is issued. When a Carnet holder shows it to the customs, one of the relevant parts of the sheet is taken, assuring the seal and signature on the cover on entry/exit. These marks are mandatory. Carnet de Passage needs an accurate reporting and must be returned upon arrival. The following countries currently are implementing this regime successfully: Australia, Japan, Iran, India, Qatar, Brazil, Argentina, some African countries, Sri Lanka, Nepal, Pakistan and other countries.

It must be noted that, Carnet de Passage system is very convenient and highly used in many above-mentioned countries. This system could be implemented in Central Asian countries for smooth movement of vehicles and cargo through the transit corridors avoiding at the same time additional costs on customs control and saving more time.

2.4 Kazakhstan's transit corridors

Kazakhstan is the biggest landlocked country in Central Asia. The country was in similar situation as Tajikistan being a member to USSR and facing economic downtime after getting independence. However, Kazakhstan was able to move toward economic progress and it is much more improved economically than Tajikistan. One of the main strategic goals of Kazakhstan is to establish efficient and worldwide standard transport networks throughout the country. According to the Transport Strategy of Kazakhstan, transport sector of the country is bound to smoothly integrate into the global transport system. It must be mentioned that only one project of this strategy that involves periods from 2006-2015 was invested to USD 26 billion. The above mentioned government strategy claims that, transit routes of the country will ensure substantial revenues for the central budget and transport companies. Moreover, it is intended to facilitate growth of trade between the West and the East through reliable and accessible transit routes (Transport Strategy of the Republic of Kazakhstan, 2010). The current Kazakhstan president's approach is to integrate the country into the world economy and exit from the situation of being a landlocked economy. Thus, he sees a great potential on transit corridors as there is no other alternatives for a landlocked country to link to Russia and Europe, directing a huge amount of investment into the improvement and establishment of high quality transport networks. The standards of transportation costs and time are a frequent attempt to correspond to the standards of EU, at the same time improving the quality of transport networks. For instance, the share of transportation costs in the final cost of the goods make up 8% for in-land railways and 11% for automobile traffics respectively, while in EU these indicators in average is fixed around 4-4,5%. As for cargo

intensity index, Kazakhstan's economy is less efficient than in EU's, since the transport component of every 1 USD of GDP makes no less than 9 ton-km, while in EU cargo intensity it is less than 1 ton-km/USD of GDP (Embassy of the Republic of Kazakhstan accredited in Singapore, 2010). Despite being less efficient in economic indicators compared to Europe, Kazakhstan's indicators is far more efficient than Tajikistan ones.

According to the Strategic Documents of Kazakhstan on Transport (2010), there are four international transit corridors that cross through the territory of Kazakhstan which are based on the Government's Infrastructure official documents.

These are:

1. Northern Corridor of Trans-Asian Railway Main (TARM): Western Europe – China, Korean Peninsula and Japan via Russian and Kazakhstan (section Dostyk – Aktogai - Sayak – Mointy – Astana – Petropavlovsk (Presnogorkovskaya)).
2. Southern Corridor of TARM: South-Eastern Europe – China and South-Eastern Asia via Turkey, Iran, Central Asian states and Kazakhstan (section Dostyk – Aktogai – Almaty – Shu – Arys – Saryagash).
3. TRACECA: Eastern Europe – Central Asia via the Black Sea, Caucasus and the Caspian Sea (section Dostyk – Almaty – Aktau).
4. North-South: Northern Europe – Gulf States via Russia and Iran, with Kazakhstan's participation in the following sections: sea port Aktau – Ural regions of Russia and Aktau – Atyrau.

There is a central transit corridor, which is important to the country. It must be mentioned that, these transit corridors significantly contribute to the economy of the

country since they decrease the time and cost for cargo movement and facilitating trade flow.

The following Figure 2.1 shows the cargo transportation between China and Europe, where the share of Kazakhstan’s in transit corridors is calculated.

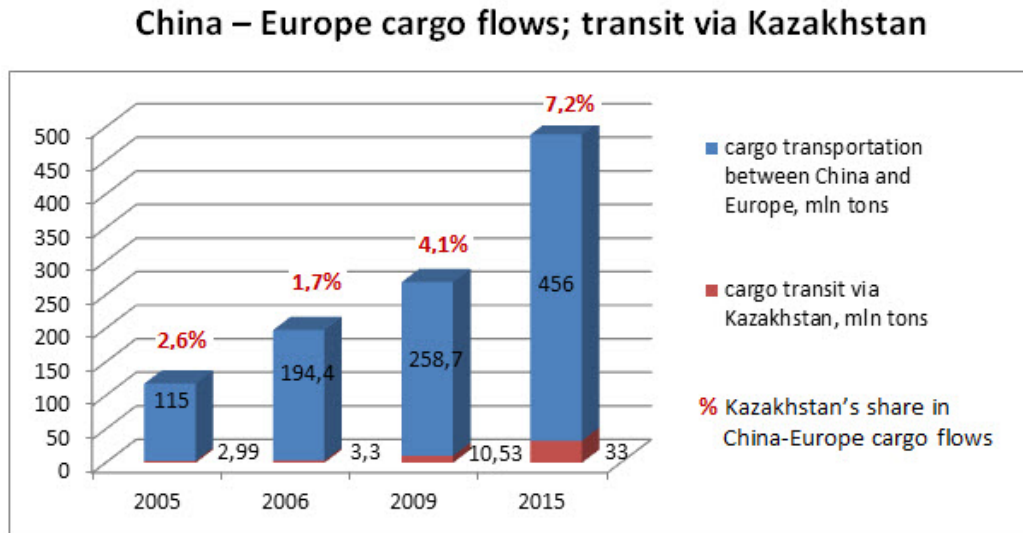


Figure 2.1 *China – Europe cargo flows: transit via Kazakhstan*

Source: Khorgos - Eastern Gates project feasibility study, 2011

According to the study in International Transport corridor in Kazakhstan (2011), The route connecting China and Europe via Kazakhstan would be half the length of the sea route and 1000 km shorter than the similar route via Russia. This creates good chances of large cargo flows through Kazakhstan.

According to the Kazakhstan’s Railway services (2016), the volume of transit cargo via Kazakhstan has increased to 205% at first quarter of 2016 and exceeded \$1 million USD for transit fees (32.6 billion Kazakh tenge).

As an integral element of the Kazakh strategic plan, the Khorgos Special Economic Zone in eastern border with China was launched as the bilateral trade between

these two countries increased from \$1.29 billion in 2001 to \$20.4 billion in 2010 (Daly, 2015). By 2020 the cargo flow between China and Kazakhstan through Korgas border crossing, which connects railway and oil, pipelines too, are expected to exceed 20 million tons. Trade promotional policies such as large tax concessions for exports, permission to carry duty-free products, and long stay of 30 at the center for citizens of China, Kazakhstan and third party countries are Korgas pass, that aims to reduce barriers and facilitate trade becoming an important logistic hub in Central Asia (Chan, 2012).

2.5 Central Asia's trade patterns

International trade is one of the important factors for Central Asian countries for stable development. From the one side, Central Asia is rich from natural resources, which are sufficient for the small population of the countries, on the other hand, being landlocked and far from the major markets together with poor infrastructure impede the economic growth of the whole region. In addition, political instability and closed borders of some countries deteriorate the flow of regional cooperation. Such situation creates barriers for international trade among the countries despite the strong dependence of Central Asian countries on regional trade.

2.6 Challenges that face landlocked countries

Geographical location of a country plays an important role to its economic and international relations. According to the Human Development Report of UNDP (2003), none of the landlocked countries are considered as high human developed countries and nine out of the twelve landlocked countries are least developed countries. Another

specifically important aspect of a landlocked country is that, the country is usually far away from major markets and main ports which makes the transport costs higher compared to other non-landlocked countries. Higher trade costs can reduce the welfare of a country's citizens and impede prospects for economic growth by rendering goods expensive to import and locally produced goods uncompetitive for export (Faye *et al*, 2003). The fact of being landlocked creates dependence of the country to its neighbors in order to reach international shipping routes. Such dependence can be explained in several barriers. First of all, if the infrastructure of a transit country is not developed or less invested than it turns out a barrier for the neighboring country to access the ports. Another barrier is the relationship between neighboring countries. If the relationships are hostile and closed than a country's opportunity for trade and transit are limited. One of the important barriers that face landlocked developing countries can be counted as weak customs system. This leads to the long and useless waiting on border crossings, a big range of documentations, bribes and other unnecessary payments related to transit routes that impedes country's access to the international shipment ports. These barriers can be reflected on country's investment factor. Since, for landlocked countries without outside help, the countries will remain trapped—too poor to invest in infrastructure and too lacking in infrastructure to become internationally competitive in new exports (UNDP, 2003). The following Table 2.1 shows where trading across borders is easy and most difficult and their world ranking which have been calculated by World Bank Doing Business (2011).

Trading Across Borders			
<u>Easy</u>	<u>Rank</u>	<u>Most difficult</u>	<u>Rank</u>
Singapore	1	Niger	174
Hong Kong	2	Burkina Faso	175
United Arab Emirates	3	Burundi	176
Estonia	4	Azerbaijan	177
Finland	5	Tajikistan	178
Denmark	6	Iraq	179
Sweden	7	Congo Republic	180
Korean Republic	8	Kazakhstan	181
Norway	9	Central African Republic	182
Israel	10	Afghanistan	183

Table 2.1 *Where is trading across borders easy and where not?*
Source. World Bank Doing Business Report, 2011

As it is seen in the Table 2.2 the countries where trading across borders is an easy procedure are mostly coastal countries while countries which are in the bottom of the ranking are landlocked.

Next Tables shows time and costs of export, where countries are compared with less and most time spent and the cheapest and highest costs of exports.

Time (days)			
<u>Fastest</u>		<u>Slowest</u>	
Denmark	5	Zimbabwe	53
Estonia	5	Central African Republic	54
Singapore	5	Niger	59
Hong Kong	6	Kyrgyzstan	63
Luxemburg	6	Uzbekistan	71
Netherlands	6	Afghanistan	74
United States	6	Chad	75
Cyprus	7	Iraq	80
Germany	7	Kazakhstan	81
Norway	7	Tajikistan	82

Table 2.2 *Where is exporting easy and where not?*
Source. World Bank Doing Business Report, 2011

Cost (US\$ per container)			
Least		Most	
Malaysia	450	Rwanda	3,275
Singapore	456	Zimbabwe	3,280
China	500	Tajikistan	3,350
United Arab Emirates	521	Congo Dem. Rep.	3,505
Finland	540	Niger	3,550
Vietnam	555	Iraq	3,550
Saudi Arabia	580	Congo Rep.	3,818

Table 2.3 *Where is exporting easy and where not?*

Source. World Bank Doing Business Report, 2011

However a couple of World Bank experts on their study “The cost of being landlocked: Logistics costs and supply chain reliability (2007) claim that the condition of roads can not be the main reason for inefficient, costly transport and infrastructure improvements alone will not solve the problem. Their study showed that the most important problems were in ports and how to get the goods from those ports. Together with the port issues such barriers as border delays, cartels in the trucking industry, multiple clearance processes and bribes are the results of the artificially high transport costs which CA countries face (World Bank, 2008).

CHAPTER THREE

3. COUNTRY OVERVIEW

3.1 Tajikistan's overview

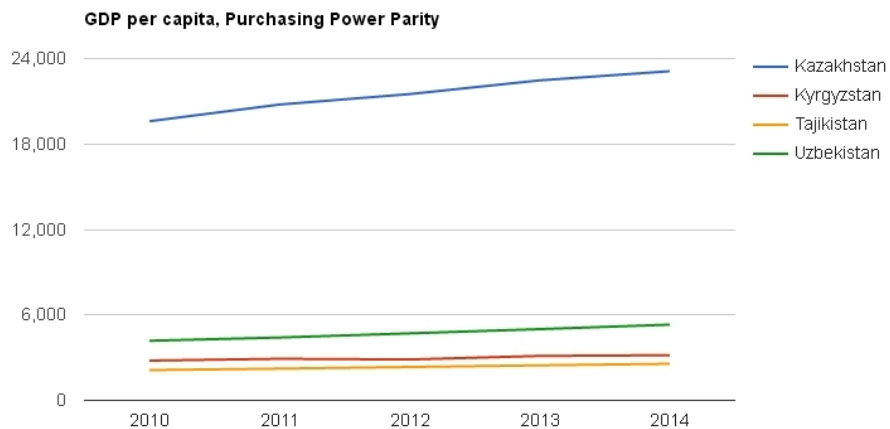
In the past Tajikistan was a member of the Union of Soviet Socialistic Republics (USSR) and after the collapse of USSR, it got its independence in 1991. During the period of being the member of USSR, Tajikistan was the main exporter of cotton, however the country was one of the republics with least GDP and slow growth rate. After getting independence, Tajikistan faced a harsh 5-year Civil war from 1992-1997 which backend the country to 50 years. The Civil war made the situation of a slightly well-being country to the worst stages of poverty, hunger and death of thousands of people. Starting from 2000s, Tajikistan's economy began to improve and positive results were seen in almost every economic sphere. The country is rich with natural resources, such as, water, coal, uranium, gold, silver, zinc, precious and semi precious stones. However, due to the lack of machinery and mining technologies not all the metals can be taken out of the ground. The following table shows key macroeconomic indicators of Tajikistan.

Key macroeconomic indicators	2009	2010	2011	2012	2013	2014
GDP in fact prices	4978.3	5641.8	6523.2	7592.6	6788.1	7639
GDP annual growth (%)	3.9	6.5	7.4	7.5	7.4	6.7
GDP per capita (USD)	666.6	743.0	848.3	962.0	480.3	500.56
External trade turnover (millions of USD)	3579.9	3851.1	4443.3	5137.6	5312.5	5374.7
Inflation rate (%)	6.4	6.5	9.3	6.4	5.40	5.50
Unemployment rate (%)	2.1	2.2	2.2	2.6	2.3	2.4

Table 3.1. *Key macroeconomic indicators of Tajikistan*

Source. Tajikistan in numbers 2012; 2015, Agency of Statistics under the President of the Republic of Tajikistan

These indicators are lower in Tajikistan compared to other Central Asian countries, such as Kyrgyzstan and Kazakhstan, as Tajikistan is less developed. However, in some indicators, such as GDP per capita it is higher than in Uzbekistan. Let us compare as an example GDP per capita PPP of Tajikistan with other CA countries.



Source: TheGlobalEconomy.com, World Bank

Figure 3.1 *GDP per capita, PPP of Tajikistan, Uzbekistan, Kazakhstan and Kyrgyzstan*

Source. Created in TheGlobalEconomy.com. World Bank, 2016

Population in Tajikistan grows steadily. Even during the period of USSR, Tajikistan was in the leading place in population growth rate.

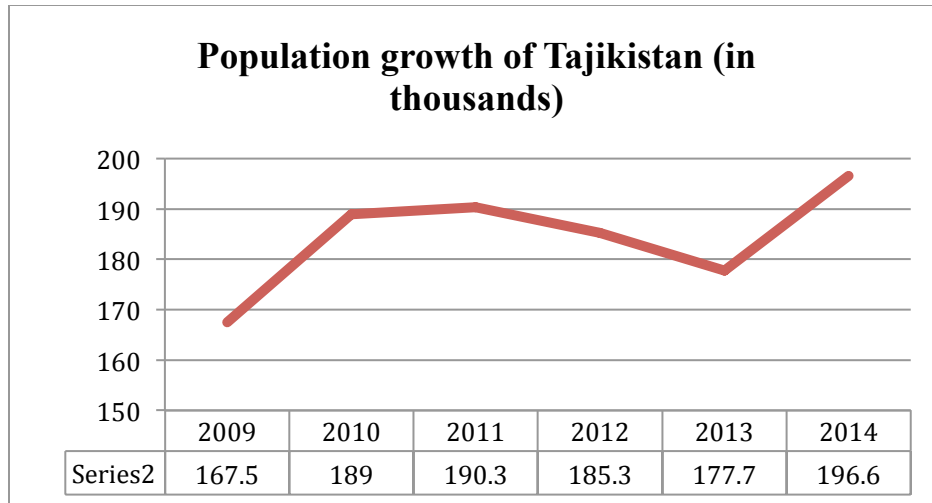


Figure 3.2 *Population growth of Tajikistan*

Source. Agency of statistics under the President of the Republic of Tajikistan, 2015

3.2 *Trading opportunities of Tajikistan*

Over the entire period of market reforms commodity structure of foreign trade and domestic production structure of Tajikistan has not changed since independence, reflecting the slow progress of structural and economic reforms initiatives. Exports of cotton and aluminum continue to generate about half of GDP and two-thirds of the annual foreign exchange earnings and a quarter of tax revenues. The asymmetry between the country import and export trends experienced in Tajikistan in recent years, tends to increase. Geographical location of Tajikistan and the underdeveloped transport links, coupled with weak regional trade ties strongly influence on the structure of foreign trade.

The fall in world prices for aluminum and cotton during the global financial crisis is an important factor that caused the trade deficit in the country at a rate of 12% of GDP. UNDP Tajikistan assessments (2008-2009) analyzed that higher prices for aluminum and cotton for Tajikistan, 1% could improve the country's trade balance by 0.2% and 0.12%

respectively. Thus, if the annual prices for aluminum and cotton remained at an average of 1994 and 2001, the deterioration in the trade balance of Tajikistan during the global crisis would have been less dramatic. However, the increase in world prices for aluminum and servants in 2010-2011 had not much improved the country's trade balance (compared with 2009 in 2010 improved by 6.2%, although the price, for example, cotton fiber, increased by 162% and 142% for aluminum).

Liberalization of foreign relations has led to increased domestic demand due to foreign remittances of migrant labor, contributing to the demand for imported consumer goods. International financial institutions with low role of foreign direct investments mainly fund a current account on deficit of balance of payments.

A single Customs' "One-Stop-Shop" has been launched to improve the trading environment and lighten the ongoing customs reforms on the eve of country's accession to the WTO. The procedure of customs clearance passes through "One-Stop-Shop", which eases the clearance procedure, as well as reducing transaction costs. This measure is also economically beneficial considering the potential that Tajikistan is becoming a country of transit, as well as attractive due to the new set up Free Economic Zones throughout the country, along main corridor routes.

In general, the combination of a narrow export structure and uniform geographical concentration of foreign trade flows makes Tajikistan on the most vulnerable states to external shocks. Under such conditions of openness, ensuring competitiveness of the country is possible via creation of new economic sectors, in particular the formation of a transit basis in the country.

To foreign markets such as Netherlands, Switzerland, Latvia, Turkey and China towards which Tajikistan's exports of raw materials (primary aluminum and cotton fiber) directed are not the end-use products. Therefore, under conditions of stable structural invariance of the foreign trade with above mentioned countries, there is an immeasurably high dependence of the national economy to external price shocks. The situation could be prevailed by three contradictory alternative approaches:

1. It is traditionally presented in the economic literature that high dependence of the national economy to external price shocks is associated with an increase in the degree of processing of these raw materials at the domestic market, and their subsequent export to foreign markets in order to get the most benefit. Such approach implies inception of import substitution, and the gradual shift to export-oriented foreign policy;
2. Second approach is to conduct primarily export-oriented policy and by gradual accumulation of investment resources shift to import substitution.
3. The third approach is to form an infrastructure for the transit of goods to neighboring countries through the customs territory of the country. This means the formation of the tertiary sector of services associated with services in trade and its promotion.

The first two alternatives historically and logically, from the standpoint of both theory and practice, are justified and thoroughly covered by the international economics theory. However, some countries use the third alternative approach in practice. On the other hand, the promotion of such theory relates primarily to geographic location of a particular country. Analysis of the global economic trends (2009) witnesses that 85% of world production and sales of cotton and 90% of world aluminum markets are concentrated in the hands of several multinational corporations. Tajikistan's share on

these products is small on global markets, considering that world production of cotton is about 17 million tons, and total supply on the world aluminum market is more than 11 million metric tons (in the form of primary ingots of more than 4 millions). Even if the production of cotton and aluminum will increase and reach the long-term development strategy targets (raw cotton - 800 thousand tons and primary aluminum - 630 thousand tons), Tajik companies share in those markets would still be less than 4% for cotton and 5% for aluminum (Ministry of Economic Development and Trade, 2008).

This situation demonstrates the need on urgent action in the area of the country's foreign economic strategy aimed at boosting regional trade within CAREC, EurAsEC, and ECO in order to equalize the balance of trade, at the same time need on introduction of institutional reforms to create a favorable investment climate for FDI in order to align balance of payments.

The balance of foreign trade turnover of Tajikistan with all CIS countries is negative, and the proportion of foreign trade turnover with real unfavorable conditions of trade (with the exception of Belarus, Armenia, Kyrgyzstan and Uzbekistan) in recent years is insignificant. The following Table shows trade turnover of Tajikistan with all CIS countries in USD dollars.

CIS countries	2012			2013			2014		
	Trade turnover	Export	Import	Trade turnover	Export	Import	Trade turnover	Export	Import
Russia	1067,5	106,9	960,6	1029,3	123,1	906,2	1250,8	54,6	1196,2
Kazakhstan	705,8	101,6	604,2	711,3	85,5	625,8	858,8	177,7	681,0
Ukraine	93,6	4,0	89,6	97,5	2,8	94,7	90,1	0,7	89,4
Turkmenistan	157,8	2,9	154,9	119,3	4,5	114,8	110,8	0,9	109,8
Belarus	75,7	6,3	69,4	41,8	3,1	38,7	37,4	3,2	34,2
Kyrgyz Rep	80,0	7,0	73,0	186,5	7,2	179,3	40,6	7,6	32,9
Uzbekistan	61,9	4,0	57,9	12,1	4,6	7,5	13,0	3,4	9,6
Azerbaijan	59,8	0,004	59,8	9,8	0,2	9,6	13,5	0,05	13,4
Moldova	8,4	6,6	1,8	5,2	3,0	2,2	3,8	1,2	2,6
Armenia	0,3	0,03	0,3	1,1	0,6	0,5	0,4	0,2	0,2
Total	2310,9	239,3	2071,6	2213,8	234,6	1979,2	2419,2	249,5	2169,3

Table 3.2. *Trade turnover of Tajikistan with CIS countries in USD*

Source. Agency of Statistics under the President of the Republic of Tajikistan, 2015

This situation proposes that under import surplus of goods and unfavorable ratio of export and import prices, forward and backward linkages between macroeconomic positive externalities (concentrated in this particular case to the CIS countries) and domestic sectors of the economy does not actually exist.

3.2.1 Assessment of trading opportunities: import, export and re-export in Tajikistan

On the basis of the trading opportunities of the Republic of Tajikistan a number of State programs have been implemented and adopted with the consideration of external funds and a number of institutional reforms have been conducted. One of the main program among them is the “Export Development Program of the Republic of Tajikistan

for the period up to 2015”. The program provides export expansion and its diversification in three stages:

- The first stage (2006-2008) had been provided for the survey on the institutional basis of export development of the country.
- The second stage (2009-2011) provided for the enhancement of export and subsequent movement to its diversification.
- The third stage (2012-2015) envisages measures to diversify exports and radical change in its commodity structure (Ministry of Economic Development and Trade, 2010).

Nevertheless, more or less the country is still only at the first phase where measures are under implementation. That is related to the slow pace of institutional reforms, ongoing changes in country’s legislation on trade-related aspects and identification of primary export sectors of the Republic of Tajikistan.

Along with this program some other related programs have also been adopted:

- "The Program of final processing of cotton fiber produced in the Republic of Tajikistan for the period up to 2015";
- "The Program of development of light industry of the Republic of Tajikistan for the period 2006-2015»;
- “The Program of processing and production of final products from primary aluminum production in the Republic of Tajikistan for the period 2007-2015”;
- “The Program of development of agricultural products processing in the Republic of Tajikistan for the period 2007-2015” (Ministry of Economic Development and Trade, 2014).

Implementation of these programs in the country is also very slow. As seen from Table 3.3, the foreign trade turnover of Tajikistan, irrespective of the measures and programs, indicates strengthening of the country's dependence on the external market. Moreover, the share of exports for the period 2007-2011 decreased in volume by 14.4%, while imports increased by 29.8%.

Indicators (millions of USD)	2010	2011	2012	2013	2014
Foreign trade turnover	3851.6	4463.3	5138.1	5312.5	5274.7
Export	1194.7	1257.3	1359.7	1161.8	977.3
Import	2656.9	3206.0	3778.4	4150.7	4297.4

Table 3.3. *Analysis of External Trade of the Republic of Tajikistan*

Source. Agency of Statistics under the President of the Republic of Tajikistan, 2015

It is evident that so far only two products dominate in the exports of the Republic of Tajikistan. These are cotton and aluminum. According to the ensuring of economic security, such situation has a risk of threat. Especially when the buyers of these products are foreign countries and the goods are not formative products to intensify regional and cross-border trade since 0.6% of export share of primary aluminum and 32.1% of cotton fiber of the Republic of Tajikistan is due to CIS countries, the rest is due to the EU, China and Turkey. Overall, the main export partners of Tajikistan are Turkey, China, Greece, Kazakhstan, Russia, Serbia, Italy, Norway, USA and India (Observatory of Economic Complexity, 2012). The following Figure 3.3 shows main export products of Tajikistan in 2014. Share of these products are very big in overall export composition.

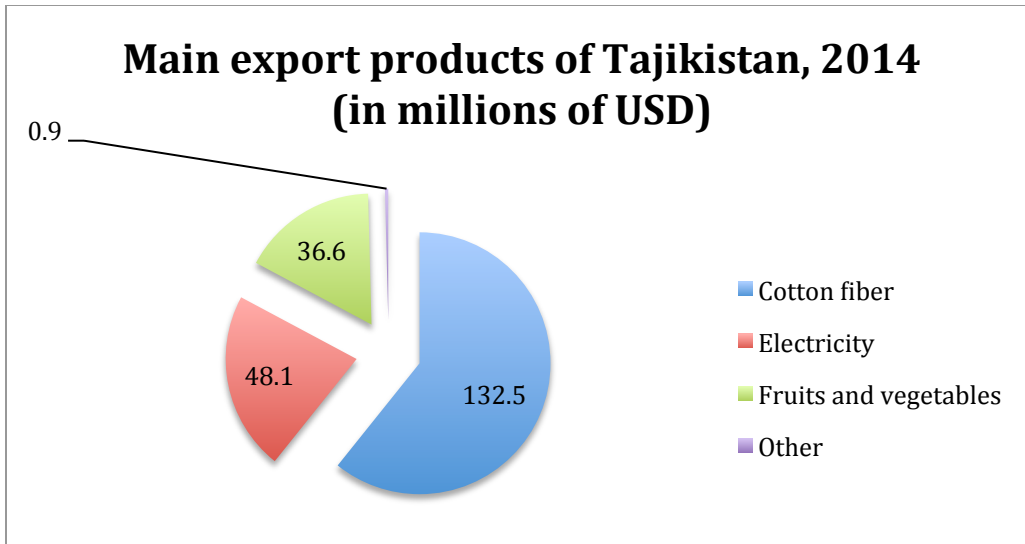


Figure 3.3 *Main export products of Tajikistan in 2014 (in millions of USD)*

Source. Agency of Statistics under the President of the Republic of Tajikistan, 2015

It is noteworthy mention that the export share of these products is variable due to the cross-border relations of Tajikistan with its neighbors. Thus share of electricity exports declined dramatically in 2009-2010 (from 63.5 millions of USD to 3.6 millions of USD) as Uzbekistan stopped imports of electricity to Tajikistan (Agency of statistics of Tajikistan, 2015). However according to IMF country report (2006), Tajikistan has annual progress in diversification of export and as the diversification of exports progresses, export growth is foreseen to increase to 9% between 2011 and 2025.

It must be mentioned that Tajikistan was one of the main exporters of aluminum in Central Asia. Its huge aluminum plant called SUE “Talko” is the biggest aluminum plant in Central Asia. Its aluminum was of the high quality and was exported steadily in London Metal Stock Market. However, the main material for aluminum production, called aluminum dioxide, Tajikistan imported from Africa. During 2008 World Crisis prices for aluminum started to fall drastically and as Tajikistan spent 25% of the total

value of aluminum for transport, it became no longer profitable to export aluminum. Tajikistan lost one of the main export products because of the high transport costs and low world market prices.

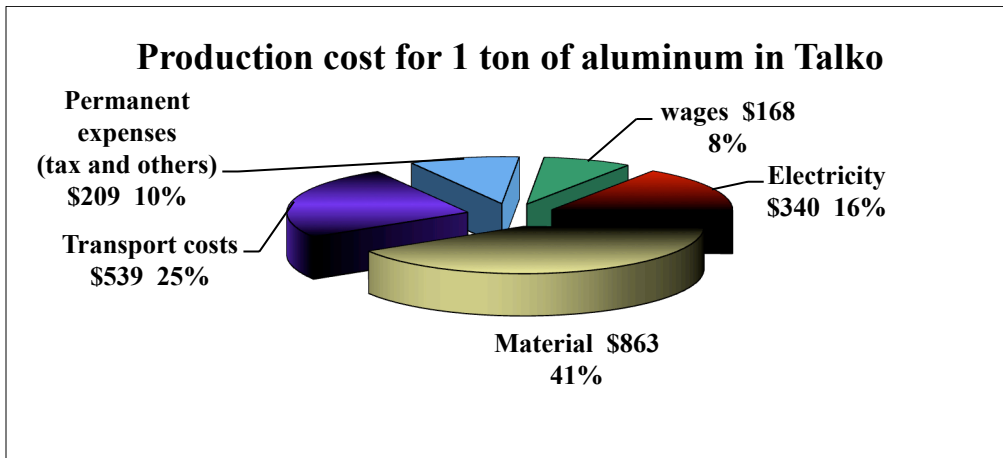


Figure 3.4 *Production cost for 1 ton of aluminum in SUE “Talko”*

Source. Tajik Aluminum Plant, “Talko”. Formation of price for aluminum, 2015

Next Figure 3.5 indicates prices for aluminum in London Metal Stock Market from 2008-2015 which shows steady decrease in price during this period.

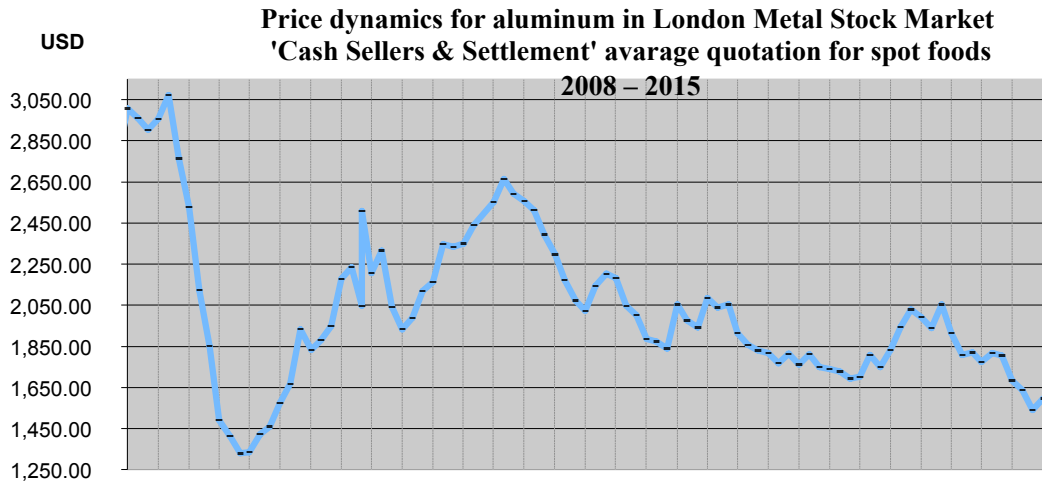


Figure 3.5 *Price dynamics for aluminum in London Metal Stock Market “Cash Sellers & Settlement” average quotation for spot goods 2008-2015.*

Source. Tajik Aluminum Plant, “Talko”. Formation of prices for aluminum, 2015

The structure of Tajikistan’s import is totally diversified. The following Diagram shows import structure of Tajikistan for 2014 in millions of USD.

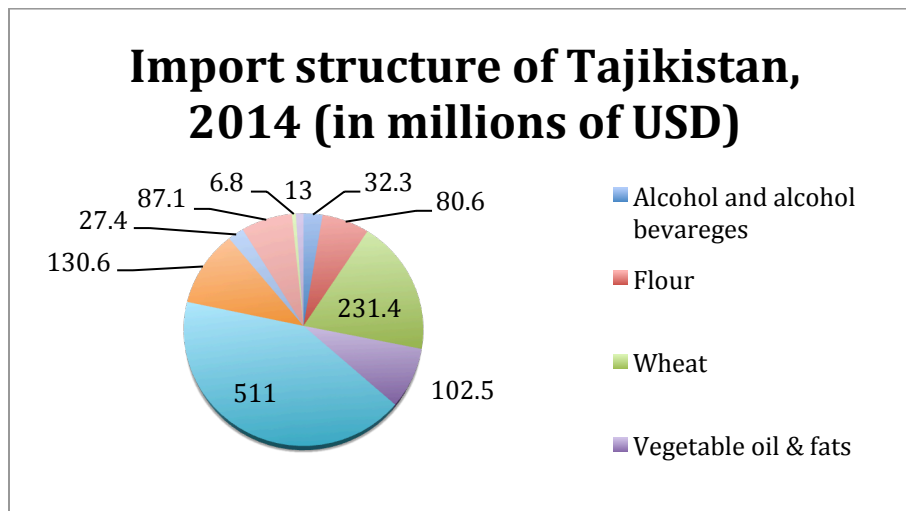


Figure 3.6 *Import structure of Tajikistan in 2014 (in millions of USD)*

Source. Agency of statistics under the President of the Republic of Tajikistan, 2015

However, this diversified structure of imports in Tajikistan must be ensured by exports as well. The largest import share of the country accounted to the CIS countries, among which are the Eurasian Economic Union countries (Russia – 1186.1 millions of USD and Kazakhstan – 680.4 millions of USD). Imports from Uzbekistan in 2013 decreased in volume almost 8 times compared to 2012 from 58.0 millions of USD to 7.5 millions of USD (9.5 millions of USD in 2014) because of the import reductions of electricity and zero import of gas. The main import partners among foreign countries in 2014 were China (726.5 millions of USD), EU countries (408.0 millions of USD), Switzerland (219.3 millions of USD), Iran (162.2 millions of USD), United States (106.6 millions of USD), and Afghanistan (34.5 millions of USD) (Agency of Statistics of Tajikistan, 2015).

It is noteworthy to mention that in recent years the proportion of Afghanistan's share in exports and imports with the Republic of Tajikistan has a tendency to increase due to the expansion of border trade between the two countries and an increase in the re-export trade of the Republic of Tajikistan with this country. During the independence years of Tajikistan there were five bridges build that connected Tajikistan and Afghanistan for cross-border trade between these two countries. Construction of one more bridge is about to be completed and marketplaces will be built on Tajik sides, particularly in Qumsangir district in Khatlon region and in Vanj, Ishkashim and Murgab districts of Gorno Badakhshan Autonomous Region (Asia-Plus, 2015). Tajikistan and Afghanistan are one of the fewest countries bordering with each other and having the same language. Thus the improvement of cross-border relation can be considered as a progressing factor.

Re-export of goods may contribute to the expansion of the transit of goods through the territory of the Republic of Tajikistan. For instance, it is possible to identify a number of goods re-exported to neighboring countries and that may be in future structure-regional trade. The highest share of goods re-exported is due to Afghanistan and this list has a tendency to increase. According to the Asadov's calculation based on Statistics Agency of Tajikistan (2011), more than 76% of exports of the Republic of Tajikistan to Afghanistan are goods that are not produced in the country, and these goods are imported into the country from China, Russia, Kazakhstan and other countries. Turkmenistan follows Afghanistan as the second destination of this indicator scoring approximately 66% of exports from the Republic of Tajikistan. It is worth to note that goods to Turkmenistan, Uzbekistan and Kyrgyzstan have a homogeneous structure, whereas re-export to Russian Federation, Kazakhstan and Afghanistan is more diversified considering that re-exported goods to these markets are in strong demand.

Expansion of re-exported goods from Tajikistan undoubtedly can be improved by creation of appropriate infrastructure, especially road communication. Since trade is the main business activity of the country, respectively, the opening of the road route to China via Kulma Pass (Qarasu on the Chinese side) and continuous rehabilitation of Kyrgyz-Tajik road network at Karamik BCP contributed to a sharp increase of imports from China via road shipment. The narrowness of the domestic market in Tajikistan is pushing the country's retail business to market at neighboring countries. Expansion of re-exports business is primarily due to the implementation of publicly funded road reconstruction projects connecting the country with neighboring countries. In the future, implementation

of these projects and new railways in Afghanistan and Kyrgyzstan could lead to a sharp increase in export and create the opportunity of turning the country into a transit country.

3.3 Characteristics and conditions of Tajikistan's current infrastructure and institutional capacity

Tajikistan continues to increase efforts to streamline and systematize its transit policy instruments to make it more attractive and customer-oriented. Tajikistan is already a member of main Transit Transport Global Conventions and regional partnership Agreements and attempts to harmonize its regulating issues such as customs transiting, third-party insurance, border control regulations and ICT infrastructure.

In 2007 the Government's Resolution (No.212 from 2007, May 2) determined the list of international cross border automobile terminals, as well as list of routes for transit passage for international vehicles to ensure realization of the potential transit benefits. The existing cross border terminals in the country are managed by the Association of International Automobile Carriers of Tajikistan (ABBAT). This association was registered by the Ministry of justice of the Republic of Tajikistan from December 6, 1995 and it is a full member of International Union of Automobile Transport of Geneva, Switzerland (ABBAT, 2013). According to the reports of this international association (2013), during the periods of functioning, the Association has already been one of the

- full members of International Union of Automobile Transports (section II-truck carriers) in Geneva;
- councilor of State Transport Administrations and Association of International automobile carriers of CIS states;
- member of IRU Agency in CIS

- associations that was accepted to the consultative group of UN ECOSOC in July 2007

Currently ABBAT has 24 members to which provides all the necessary services in terms of organization and implementation of international freight. These services include the issuance of all necessary documents according to the international standards and conventions, such as the TIR Carnet, commodity and transport waybills CMR, vehicles certificate of approval, forwarding services, and other documents related to foreign demands. Government of Tajikistan together with transport authorities concluded some bilateral and multilateral Agreements the results of which were the introduction of quotas (for more than more than 9000 vehicles) for international cargo transportation. Due to the increasing turnover of Chinese goods in Tajikistan, the half of these quotas is given to Chinese transporters. Transport companies that exist in the country, which are members of ABBAT, encourage other sectors, specifically private sector for creation and improvement of public private partnerships.

According to the data of the Transport Ministry of Tajikistan (2010), 90 percent of the 14000 km road network of the country is considered as paved. It must be mentioned that one of the consequences of 1990s civil war and economic deprivations caused deterioration of road surface conditions as well. As a result, currently Tajikistan lacks road of 1st category with almost half of international roads of gavel and bitumen grouted surface, and around 30% of asphalt pavements. The following Table 1 shows the situation of Tajikistan's national and international roads by their category and length.

International Roads		National Roads		Local Roads		Total per category	
Category	Length (km)	Category	Length (km)	Category	Length (km)	Category	Length (km)
I	-	I	-	I	-	I	-
II	126	II	21	II	4	II	151
III	1273	III	859	III	231	III	2363
IV	1588	IV	769	IV	1144	IV	3501
V	160	V	495	V	7305	V	7960
Total	3147	Total	2144	Total	8684	Grantotal	13975

Table 3.4 *National and international roads of Tajikistan*

Source: State Unitary Enterprise Design and Research Institute, 2011

As it is seen in the Table 3.4 both in national and international roads, Tajikistan is lack of Category I and II roads, which are classified as main long distance roads and highway national roads respectively. Thus, road scarcity affects the transport situation in and out of the country.

While most of the Central Asian transport movements are carried by rail roads, in Tajikistan the vast majority of Tajik national transport movements are made by road transports. In average, more than 75 percent of all freight transportation and freight turnover in 2008-10 period are done by roads transports (Ministry of transport and communication of Tajikistan, 2011). This tendency will likely to continue increasing in the nearest future, putting more pressure on Tajik authorities to find ways for facilitation of road maintenance. Addressing the need for infrastructure maintenance requires considerable investments of national resources, as well as development assistance funds.

Tajikistan inherited bureaucratic approach toward customer service and numerous new trade barriers emerged after gaining independence in early 1990s. Improving trade facilitation is a central source for decreasing excessive costs for freight transporters in

Tajikistan. Cumbersome “soft issues” such as excessive physical inspection, inadequate freight tracking arrangement, documentation requirement and clearance delays deteriorate service provision and lower logistics performance of the country. Nevertheless, the country is experiencing structural changes and reforming to make trade facilitation processes more efficient and customer-friendly.

Despite Tajikistan’s gradual improvement in facilitating transit and border procedures in the last years, it still lags behind in transport and logistics developments compare to its neighboring states.

The following Figure shows Tajikistan’s Logistical Performance Scores taken from World Banks’s Logistics Performance Index (LPI) 2000-2014, which analysis the transport logistics of a country in depth. According to the World Bank’s LPI (2014), there are six indicators for the country logistics’ assessment. These are

- Customs, which shows efficiency of clearance process, including speed, simplicity and predictability of formalities by border control agencies;
- Infrastructure, indicates the quality of trade and transport related infrastructure;
- Ease of arranging competitively prices shipments;
- Competence and quality of logistics services;
- Ability efficiently track and trace shipments;
- Timeliness, indicating arrival of the shipments on time

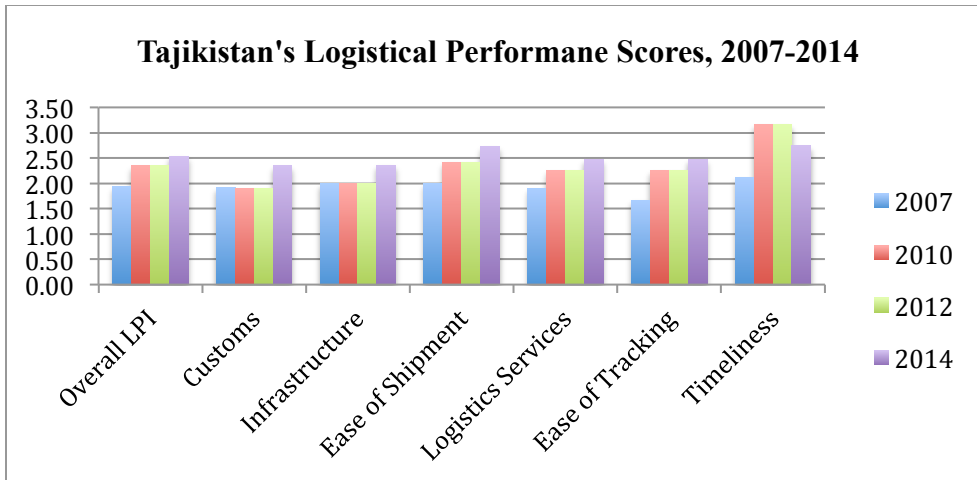


Figure 3.7 *Tajikistan's Logistical Performance Scores*

Source: Logistics Performance Index, World Bank, 2007, 2010, 2012 and 2014

As it is shown in the Figure above, every index in Tajikistan logistics performance scores has been improving during the past seven years. However, the following Figure shows Tajikistan's Logistical Performance Score compared to its neighboring countries and Kazakhstan.

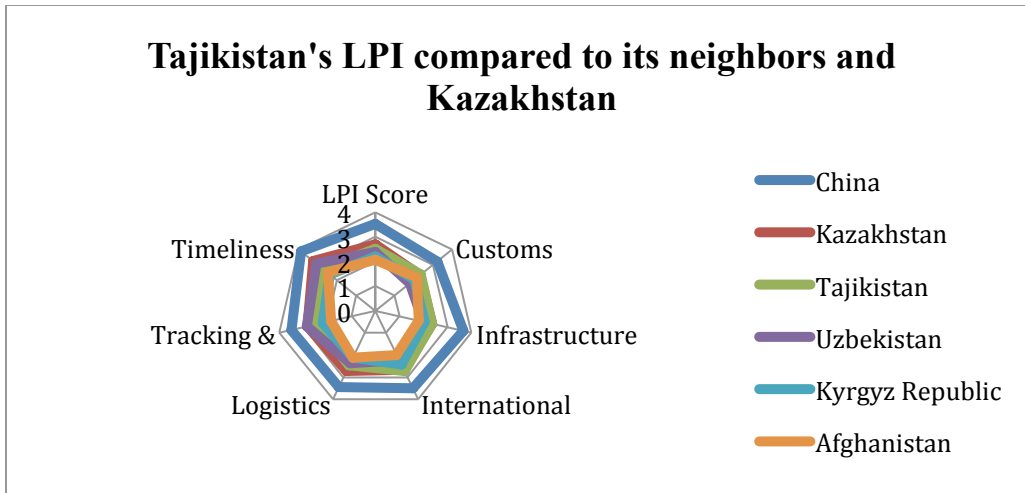


Figure 3.8 *Tajikistan Logistical Performance Scores compared to its neighboring countries and Kazakhstan*

Source: Logistics Performance Index, World Bank, 2014

As it is shown in the Figure 3.8, Tajikistan’s logistics score lags behind the ones from China and Kazakhstan, however in some indexes such as Customs, Infrastructure and International shipment Tajikistan is in front of Uzbekistan and Kyrgyz Republic, still trailing in Logistics Competence, Tracking and Tracing and timeliness. Afghanistan’s Logistic Performance Scores are the worst among the other countries mostly due to the decades of war and instability within the country.

CHAPTER FOUR

4. METHODOLOGY AND RESULT OF RESEARCH ANALYSIS

Methodology

4.1 Balassa Index on Comparative Advantage of Tajikistan

For the first time, Bela Balassa enhanced the idea to identify country's strong sectors by means of analyzing export flows, which later was known as *Balassa Index* or *Revealed Comparative Advantage* as actual export flows 'reveal' the country's strong sectors (N/A, 2016).

By using the Balassa index (1965), researcher attempts to identify the comparative advantage of the country. The following model allows analyzing the export potential of the country, which is significant in condition of smooth and cooperative transit corridors.

As a result of the calculation, products are going to be divided into three main groups that identify country's export potential:

- Products with improving comparative advantage;
- Products with deteriorating comparative advantage;
- Products with improving comparative non-advantage

4.2 Measurement of impact on time to import and export by using Regression analysis

The transit of goods and services into a landlocked country face more challenges compared to coastal states. Thus, as it was mentioned earlier, the goal of this research is to determine and analyze potential of the transit corridors for the smooth regional trade. Based on this fact, in the analysis section, the impact of the import and export time to the import and export cost, the distance to frontier, and tax rates are being calculated. The reason of choosing Time to import and Time to export as dependent variables is that, Tajikistan is mainly comparative advantage on exporting fresh and dried fruits and vegetables to the other countries, mainly crossing through its neighboring states. In case of late delivery or multiple barriers to transit, the risk of the goods getting damaged in the road is high with every hour. Therefore, the variable Time to import and export is considered to be important for a landlocked country to deliver a safe and fresh cargo to the imported/exported country.

The model analysis of the research must show which independent variables have an effect on the importation and exportation time and cost in Tajikistan. Thus, in order to simplify the multiple regression, three regressive tables, such as Model Summary, ANOVA^b and Coefficient were remade into one table. The resulting table will allow the researcher and the reader better to identify all the variables in a simple and compact way. The details of the regression model and other analysis are explained in the next chapter.

4.3 Analysis of coastal and landlocked countries

In this section by comparing coastal and landlocked countries, the researcher attempts to show the gap, which is quiet considerable, between chosen countries. As landlocked

countries are far away from the nearest seaports, the transport costs are high as well due to the multiple borders through other countries. This also concerns the time to import and export too, which takes longer time to reach the final destination. With high transport costs, exporting (or importing) certain goods may become economically unviable and the country may end up producing a wider range of goods for domestic consumption, as a result, it will also be poorer, other things equal, than a similar country with better access to the world market (Lücke & Rothert, 2006).

Thus, for a country as Tajikistan, which is comparative in exporting fruits and vegetables, time to import and export is a matter of concern and a significant obstacle to their expansion.

4.4 Secondary data collection

Most of the data used in this research has been taken from the World Bank Doing Business materials, Asian Development Bank's Central Asian Regional Economic Cooperation Strategy 2020, as these sources had significant amount of data related to the study. More specific materials including macroeconomic indicators were taken from the reports by the Government of the Republic of Tajikistan, the Statistic Agency of the Republic of Tajikistan, Ministry of Economic Development and Trade of the Republic of Tajikistan, Ministry of Transportation and Communication of the Republic of Tajikistan, Association of Cargo Carriers of the Republic of Tajikistan and Association of small and medium business in the Republic of Tajikistan for the time series between 2002 to the end of 2014. Additional data was extracted from the database of World Bank, ADB,

ADB CAREC, ABBAT, UN, UNDP, other various researches related to the study, and academic papers.

4.5 Limitation of the study

The considerable limitation of the study was inability to use primary data by using interviews and surveys within the responsible agencies of Tajikistan in order to fulfill the gap between the researcher and the study. This would let the research more deeply analyze the exact situation of the country. Such limitation was caused due to the financial shortage of the researcher. Also the shortage of data about national commodities turned to be a serious obstacle to the analyze section and to use ‘commodity on commodity’ calculation, which was more relevant and advised by the supervisor. Another suitable option for the model analysis, which was attempted to use in the research, was the impact of high transport costs in various industries of Tajikistan, but unfortunately was not included in the research due to the shortage and absence of the complete data.

It is noteworthy to mention that, one of the disadvantages and passive sides of a developing country from a developed one, is the inaccessibility and secrecy of the data related to the governmental ministries or agencies. If the data is available in some sections, it is considerably differs from the data analyzed or determined by the international organizations. Such situation in governmental authorities occur due to the corruption begrime and disinformation from the higher authorities. Such case impedes to deeply analyze the model during the research and use the appropriate and relevant data.

4.6 Result of Research analysis

Balassa Index on Comparative Advantage of Tajikistan

Since the paper mainly researches about export and import of the country that are main target in transit corridors, in this section the researcher attempts to analyze the export potential of Tajikistan. A method to identify the comparative advantages of the country will be used. The model, called Balassa (1965) Comparative Advantage index is used in many countries for some of export-oriented goods and selection of the main priorities of trade policies based on customs statistics. This model is used in calculating trade statistics of deter divided by time period. There are different methods for calculating the Balassa index. One of them is the calculation of the share of commodity groups in the country's export compared to the proportion of this group of products in world exports, or a certain group of countries.

The following formula is used in calculating this index:

$$RCA = (X_{ij} / X_{rj}) / (X_{is} / X_{rs}),$$

Where X – volume of exports, indexes; i – commodity or commodity group; j – the country; r – of all the groups or export goods, and s – a group of countries or the weight of the world. RCA (Revealed Comparative Advantage) – a formal statement used by Balassa in 1965. If $0 < RCA < 1$, then a country j has a comparative non-advantage for product i , and if $RCA > 1$, then the country j has a comparative advantage for product i .

These dynamics allow us to even identify the category of goods which, despite the comparative non-advantage, shows a significant increase in export indicators. The growth of export performance of some products may lead to future benefits of the country's export of this category of goods.

The calculation results of the Balassa index for Tajikistan allowed us to divide into three main groups. So, in Tajikistan products with revealed and improving comparative advantage ($RCA > 1$ and tend to increase) are:

- Agricultural products (vegetables and root crops, fruits, nuts, citrus fruits, citrus products, oilseeds, vegetable products);
- Mining (ore and slag);
- Cotton fiber;
- Works of art and antique.

Products with revealed but deteriorating comparative advantage ($RCA > 1$ and tend to decrease) include the following:

- Agricultural products (crops);
- Food industry (confectionary, canned fruit and vegetables);
- Tobacco and manufactured tobacco substitutes;
- Raw leather and leather products;
- Textile industry (silk, textile fibers, yarns and woven fabrics, garments and their accessories, not knitted, and non-cross linked);
- Mining (pearls, precious stones and metals);
- Metallurgy (aluminum and its articles)

Products with revealed, but improving comparative non-advantage ($RCA < 1$, but tend to increase) in Tajikistan include:

- Plastic and similar materials;
- Special molded or woven fabrics, cords, upholstery;
- Clothes, their accessories, knitted or stitched;
- Metallurgy (metals and steel, copper and its articles);
- Various industrial products.

Identified as a result of analysis, products largely coincide with the production sectors, which are highlighted by the Government of the Republic of Tajikistan as a priority. The analysis also identifies a number of potential new priority sectors other than those allocated by the government. Not all of them will become future priority sectors, but some of them perhaps in the future will be export-oriented sectors of the economy. This analysis can be used to identify those sectors that need government support. Consequently policies aimed at supporting industries in the future may improve the country's foreign trade. Taking into account the geographic location of countries along with the globalization of economic relation, reference should be sent to the country's integration group to which Republic of Tajikistan is involved and to create the formation of retail space around the country. This priority supports markets in Central Asia and Afghanistan, EurAsEC area, and Customs Union.

Since the export potential of the country is identified and the products that have the advantage are revealed, next section will be dedicated to the analysis of variables that impede to the time and cost of the movement of goods and services through the transit corridors.

Measurement of impact on time to export

Regression analysis is being used to identify the variables that have positive and negative impact on time and cost of the export and import. The below table describes the regression result to compute the impact of independent variables on time to export, which reveals that there is about 97 confidence level that independent variables, namely document of export, distance to frontier, cost of export, total of tax could predict changes

of the time to export.

Table 4.1 Regression results - Time to export and independent variables

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	92.588	27.334		3.387	.020
Total of tax	-.168	.469	-.091	-.359	.735
Cost of export	.001	.000	.716	3.565	.016
Distance to frontier	.274	.056	.956	4.890	.005
Document to export	-1.063	1.982	-.141	-.536	.615
Adjusted R-square	.725				
Overall sig.	.028				

Note: Predictors: (Constant), Document of export, Distance to frontier, cost of export, Total of tax

Dependent Variable: Time to export

From standardized coefficient (Beta), the function of regression model can detailed as follows:

$$\text{Time to export} = - 0.091 * \text{Tax} + 0.716 * \text{Cost of export} + 0.956 * \text{DTF} - 0.141 * \text{Documents for export}$$

The coefficient indicates that the how many unit of time to export will be fluctuated if there is a change of one unit of independent variables. For example, in case of increasing the cost of export to 1 unit, then the time to export increases to 0.716 unit. As it can be seen in the function, DTF has the largest impact on the Time to export. For example, if DTF increases for one km, the Time to export will increase for 0.956 hours.

In addition, most of export and DTF have positive influence on the Time to export, while Tax and Documents to export are negative influential factors on Time to export. It should be mentioned that the significance of coefficient regarding variable- “total of tax” and “document to export” is 0.735 and 0.615 respectively, which is larger than the designed level of 0.05. However, the overall significance is 0.028, which is less than 0.05. Therefore, the model may be statistically significant. Furthermore, adjusted R-square is estimated at 0.725. It demonstrated that the factors are statistically meaningful and independent variables could explain 72.5% (>60% = threshold) of the results of outcome. Thus it can be explained that the more DTF is extended due to the infrastructure inconvenience, the more is the time for export, which could cause additional problems for good and services in exporter country, particularly if it is agricultural products.

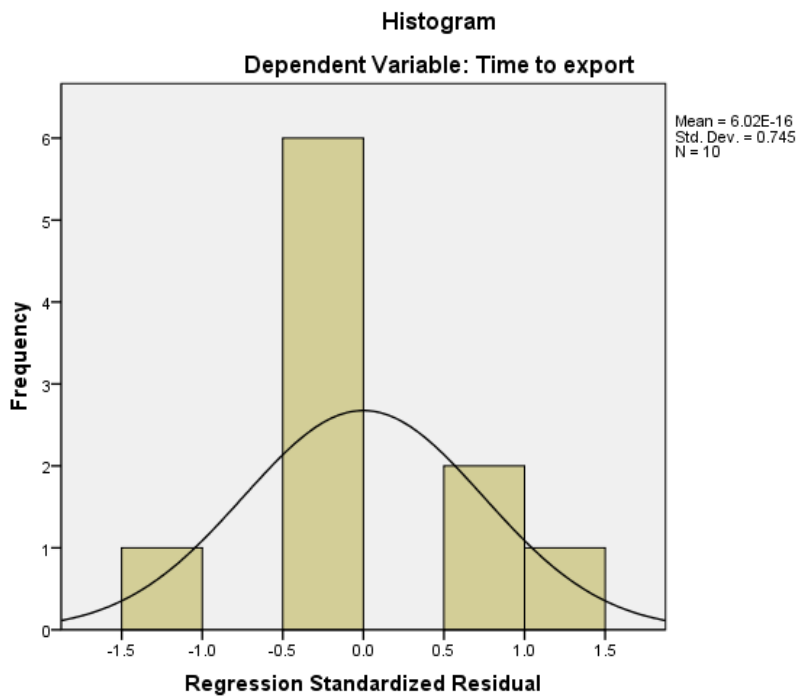


Figure 4.1 *Histogram. Dependent Variable: Time to export*

Measurement of impact on time to import

The table provides the regression results to estimate the impact of independent variables on time to import. The table shows that document of import, distance to frontier, total of tax can predict the changes of time to import.

Table 4.2 Regression results - Time to import and independent variables

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	98.844	23.702		4.170	.009
Distance to frontier	.089	.050	.374	1.779	.135
Total of tax	-.415	.288	-.271	-1.443	.209
Document to export	1.270	.424	.629	2.996	.030
Adjusted R-square	.719				
Overall sig.	.025				

Note: Note: Predictors: (Constant), Document of import, Distance to frontier, Total of tax

Dependent variable: Time of import

Based on the standardized coefficients, we can estimate the effects of independent variables on time to import through the following function:

$$\text{Time to import} = 0.698 * \text{Cost of import} + 0.206 * \text{DTF} - 0.283 * \text{Total tax}$$

The function reveals that cost of import and DTF are positive correlation with Time to import, while Tax has negative relationship with time to import. In addition, Cost of import has bigger impact on Time to import compared to other variables. Especially, when Cost of import increases for one unit of currency, the Time for import will rise to

0.683 hours. It is important to acknowledge that the significance of variable-“distance to frontier” and “total of tax” is larger than threshold (0.05). However, the overall significance of the model achieves 0.025 (<0.05). Thus, the model could explain effect of document of import, distance to frontier, total of tax on time to import in terms of statistics. On the other hand, R-square is 0.691, which means the outcome of dependent variables can be explained by 69.1% of independent variables. Thus it can be explained that for every increased unit of tax, cost and time of import rise at the same time which means additional challenge for importers and increase in the cost of goods and services for the country importer, specifically Tajikistan.

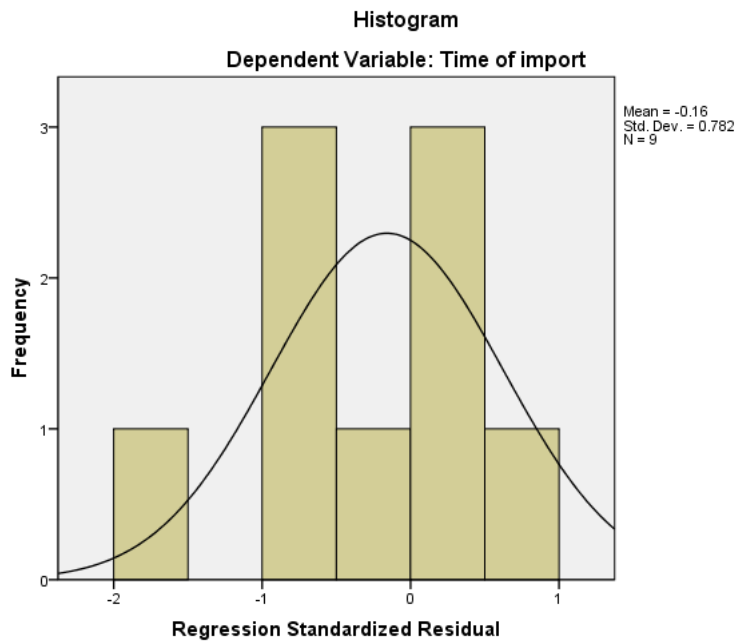


Figure 4.2 Histogram. Dependent Variable: Time of import

Comparative analysis

Finally, since the export potential is revealed and variables that have positive and negative impact on export and import are calculated, further the researcher used comparative analysis. This analysis will more clearly show the position Tajikistan takes among the countries of the world. Such variables as, time to export (days), cost to export (\$USD per container), time to import (days) and cost to import (USD\$ per container) of some landlocked and coastal countries in 2014 are being used. In order to deepen into the situation, let us define the landlocked and coastal terms and the place they take in the world.

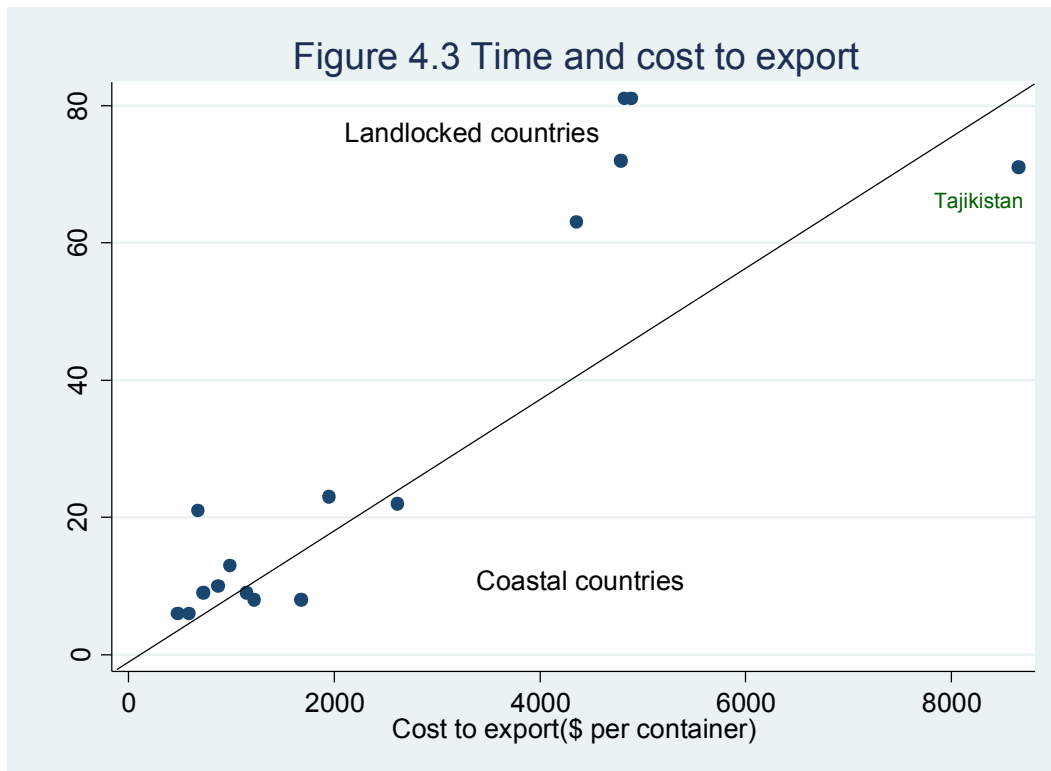


Figure 4.3 *Time of export (days) and Cost of export (\$USD per container) of some landlocked and coastal countries.*

Source. Trading Across Borders. World Bank Doing Business, 2014. Created by author

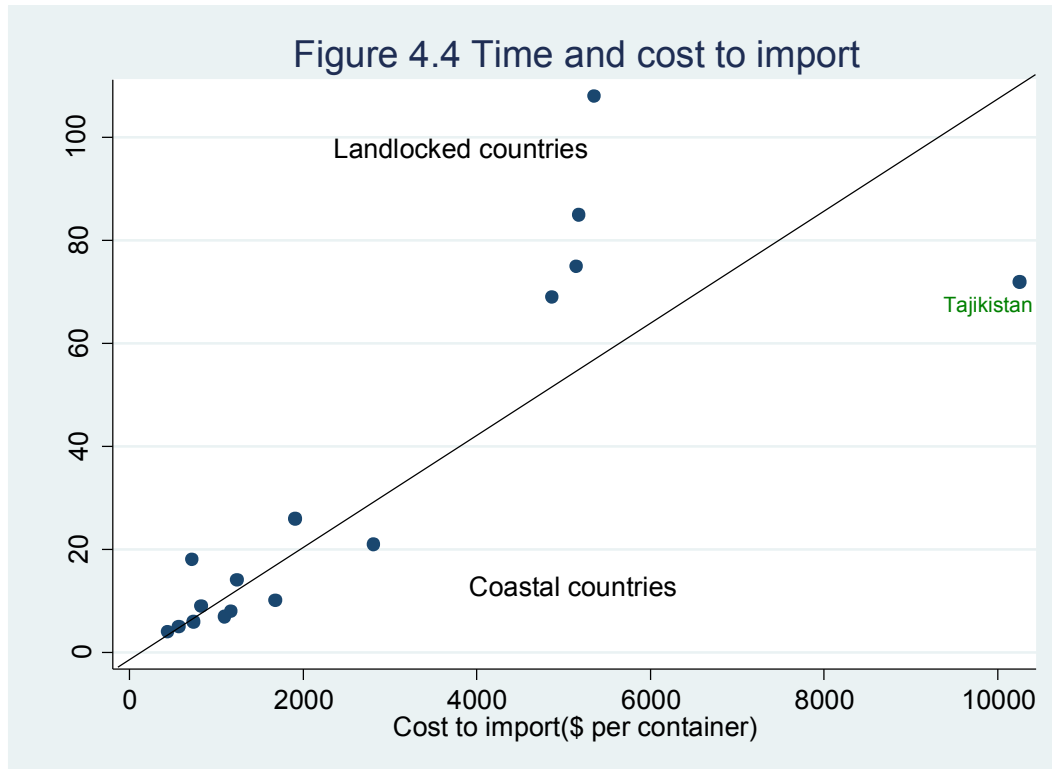


Figure 4.4 *Time of import (days) and Cost of import (\$USD per container) of some landlocked and coastal countries*

Source. Trading Across Borders. World Bank Doing Business, 2014. Created by author

As can be seen from Figures 4.1 and 4.2 (coastal countries left-side, landlocked – right-side), the gap between landlocked and coastal countries is large on import and export operations, which leaves behind the landlocked countries on development of international trade. Although most of the landlocked countries are classified as low income or middle income country in terms of trade and economic development, there are landlocked countries in Europe that are included in high income country, such as

Switzerland, Austria, and Luxemburg. This fact shows how a developed and consentaneous regional cooperation can provide a smooth relationship between neighboring countries, which leads to economic development of each state including developed transit corridors. These facts could serve as a clear example for developing countries of Central Asia in creating an Asiaregio model of regional cooperation.

As mentioned early, this research assesses the effect of export cost, the distance to frontier and tax rates on exportation time in Tajikistan. Alternatively, the effect of import cost, distance to frontier and tax rates on importation time is also evaluated. In order to measure the effects, the research implemented regression analysis using SPSS software.

4.7 Discussion of research findings

By calculating the comparative advantage of export oriented products using the Balassa index, it was identified that in condition of improved transport and transit corridors, Tajikistan has the tendency to increase the list of its export products. Specifically for agricultural products, which Tajikistan is famous for, could reduce the risk of being damaged and transported more safely. Such situation could make more competitive in price the products of the country.

As it could be seen in the above regression analysis, the main variable that had the largest impact was DTF, increasing export time in every km for 0.956 hours. It describes the importance of DTF variable in the improvement of transit corridors.

4.7.1 Identifying the imported and exported cost of goods

In this section, the researcher attempts to compare the final price of the imported and exported goods with minimum and maximum transportation costs through the cargo

movement roads. Thereby, the considerable final price of the goods was identified, which showed a significant role of transportation cost in the final price of the products in a landlocked developing country with highest import and export costs.

Cost of transport expenses have a large impact on goods and services of a country, specifically for a landlocked country which depends on regional cooperation to withdraw from communication deadlock. Thus, the Government of the Republic of Tajikistan in 2011 adopted a “State targeted Program on transportation of the Republic of Tajikistan until 2025” under #165, where the analysts calculated that the share of transport cost in the cost of production ranges from 5% to 35% depending on the sector of the economy (Government of the Republic of Tajikistan, 2011). Taking into account this considerable transportation cost, it is noteworthy to calculate the cost of one container imported and exported in/out of the Tajikistan including the cost of import/export plus documentation costs.

Imported goods price

Price of a production in the market = cost of good + documentation expenses + transportation expenses 35% + customs cost of import (per container)

To find out the result, let us input the cost of the goods obtained is 10,000\$ per container with 35% of transportation cost as Tajikistan has one of the highest transportation costs in the region. As a result,

$$10\ 000\$ + 223\$ + 3500\$ + 10250\$ = 23\ 973\$$$

So, the cost of the goods will increase nearly 2.5 times just entering the country. Until it reaches the consumer, the price will also include tax, importer’s and seller’s profit, market or shop’s place expenses and additional expenses such as insurance.

Exported goods price

Price of a production in the market = cost of good + documentation expenses + transportation expenses 35% + customs cost of export (per container)

$$10\ 000\$ + 330\$ + 3500\$ + 8650\$ = 22\ 480\$$$

The cost of exported goods increase nearly 2.5 times as well, excluding import cost of the importer country, domestic transportation expenses, tax, and additional expenses.

It is worthy to mention that the highest costs for imported and exported goods are transportation expenses and cost of import and export. As a result, sale of goods end up with a challenge for the domestic and for international markets facing harsh rivalry.

In other hand, if the transportation cost is minimal, 5% in our case, and the imported and exported costs are reduced due to the cooperative regional development and the system Carnet de Passage is implemented throughout the transit corridors, which avoids additional costs and time on border crossings, the final price of goods and services could be reduced much more and made more competitive. Such kinds of measures together with provision of infrastructure, which minimizes the overall transport costs, could facilitate trading across borders and lead to regional and economic development of Central Asian countries.

However, the geographical location of Tajikistan allows transit in almost all directions by the shortest existing route and creates on their basis multimodal transport corridors, which provides immediate access to the sea ports (Kislyakova, 2013). The following table shows the shortest distances to seaports for transit potential of the country.

	Starting point	Final Destination	Distance (km)	Route time
1	Nijniy Pyandj (Tajikistan)	Bandar Abbas	2433	3 days
2	Nijniy Pyandj	Karachi	2211	3 days
3	Nijniy Pyandj	Bandar Imom	2990	3 days
4	Nijniy Pyandj	Istanbul	4416	5 days

Table 4.3 *Distance from South border of Tajikistan to seaports.*

Source. Kislyakova Larisa. ABBAT, 2013

According to the report of the Association of National Carriers of Tajikistan (ABBAT), Tajikistan can perform as a center of transit and distribution in the region and world (Kislyakova, 2013). As performing markets for distribution can be:

- Traditional markets: CIS states, China and Central Asian countries;
- Perspective markets: Iran, Middle East and North Africa;
- Developed markets: European countries

Tajikistan can make significant contribution in not only the region, but the world, performing as a transit country by allying and improving regional cooperation. Moreover, while Russia has instability and elimination of any cooperation with its biggest trading partners such as the USA, Turkey and some European countries, the Central Asian countries, by cooperating could provide a new market destination for such a giant country as Russia. New markets such as agricultural products and tourism destinations are the perspective ones among other industries.

According to the World Bank Doing Business data (2015), Tajikistan ranks in 138 among the other countries of the world in trading across the borders. Moreover, the

time and cost of import, time and cost for documentary compliance are one of the highest among other Central Asian countries.

Trading across the borders. Tajikistan 2015		
<i>Export</i>		
Time to export: Border compliance	hours	144
Cost to export: Border compliance	USD	313
Time to export: Documentary compliance	hours	135
Cost to export: Documentary compliance	USD	330
<i>Import</i>		
Time to import: Border compliance	hours	177
Cost to import: Border compliance	USD	223
Time to import: Documentary compliance	hours	123
Cost to import: Documentary compliance	USD	260

Table 4.4 *Trading across the borders. Tajikistan 2015*

Source. World Bank Doing Business, 2015

<i>Export</i>		
Documents to export	number	11
Time to export	days	71
Cost to export per container	USD	8650
<i>Import</i>		
Documents to import	number	12
Time to import	days	72
Cost to import per container	USD	10250

Table 4.5 *Trading across borders. Tajikistan 2014*

Source. World Bank Doing Business, 2014

Table 4.4 and 4.5 which data has been used in the analysis section, shows how complicated and time-consuming the process of import and export is in Tajikistan. It must be mentioned that, while the number of documents were stable from 2004 for import and export, the cost and time for them had the tendency to increase, which explains the impact to the economy of the country. Such situations occurred due to the hostile relationship between neighboring countries – Tajikistan and Uzbekistan and sequential closing of borders from Uzbekistan to the territory of Tajikistan the international cargo. As it was seen from the analysis, developed transport corridors along the countries could contribute to the stable economic growth and improved international trade as well as reducing transportation cost to the minimal – 5% of the total expenses in cost of the goods.

CHAPTER FIVE

5. TAJIKISTAN TRANSIT CORRIDORS AND ADB'S CAREC 2020 STRATEGY.

5.1 Current situation and challenges of transit corridors

Located in the mountainous parts of Central Asia, Tajikistan is a crossroad for commercial traffic of the Central Asian countries. Being a landlocked county, Tajikistan is dependent on its cross-border and transport access. In spite of the fact that 93% of Tajikistan's territory is mountainous, the country possesses a wide-spread of automobile transport artery consisting of 17 roads of international significance and more than 80 roads of national and rural significance. Overall during the independence years there were reconstructed and rehabilitated 1700 km of roads, 13.5 km tunnels and 3.4 km of anti avalanche galleries with total sum of \$927 million (Fakhriddinov, 2013). This network provides connectivity within the country and neighboring states. The following map shows the complexity of railway and road corridors in Central Asia.

Its strategic location serves as a bridge between transit of goods and services of the People's Republic of China, Central Asia with South Asian and Middle East countries. Tajikistan has common borders with China, Kyrgyzstan, Uzbekistan and Afghanistan. The so-called "Vakhan corridor" of 20 km width in the southeast, separates Tajikistan from Pakistan.

Current transit corridors and multimodal routes crossing through Tajikistan provide network between CIS countries and Afghanistan, Pakistan, India, Persian Gulf countries and China (Fakhriddinov, 2013).

According to the report of the Ministry of Transport and Communication of the Republic of Tajikistan (2013), there are three main transport-transit corridors in Tajikistan that are included to the Asian Highways as international routes. These are:

- AH-7 – Border of Uzbekistan – Hujand – Dushanbe (Tajikistan) – Nijniy Pyandj – border of Afghanistan;
- AH-65 – border of Kyrgyz Republic – Karamyk – Vahdat – Dushanbe – Tursunzoda – Uzun-Termez;
- AH-66 – Dushanbe – Kulyab – Kalayhum – Khorog – Kulma pass – border of China with access to Karokorum highway.

Two of these routes pass from East to the West and one from North to the South. It must be mentioned that it is not only Tajikistan's contribution in transport-transit evaluation of the country but as well as contribution of China, USA, Iran, Turkey, Italy and financial institutions such as ADB, IDB, EBRR, OPEC Fund, Kuwait Fund in reconstruction of highway networks, tunnels and bridges.

In order to remove artificial barriers and bring into compliance the international standards for transportation, Tajikistan has accepted the following agreements:

1. Agreement “On masses and sizes of transport means implementing international transportations on the automobile roads of the CIS states” – 1999;
2. Interstate Agreement “On Asian automobile roads network” – 2004;
3. Agreement “On the introduction of an international certificate of weighing cargo vehicles on the territory of CIS states” – 2004;
4. Interstate Agreement “On trans Asian railroad networks” – 2006 (Khudoydodov, 2007)

One of the main steps for the export - import and transit facilitation procedures was trade facilitation procedure in the country, which were adopted by the Government of the Republic of Tajikistan in 2008. In particular the concept of formation of “Single Window” for export – import and transit procedures in the country was confirmed and based on Government’s Resolution from July 2, 2009 under #386 on “Improvement of entrepreneurship environment – 200 days of reforms”, (Kenjaev, 2012). The system of “Single Window” on export – import and transit procedures allows to replace current complicated and duplicative procedures of state licensing system through the online database.

The selected model of the Single Window system requires automated information – operated system by means of which the subjects of foreign trade can electronically submit their trade documents to various official authorities for processing and approval.

In the Single Window system those official authorities are involved, which are empowered to regulate foreign trade processes according to statistics and state registration. Regulation of the system will be managed by the Single Window Center, which was established in accordance with the Government Resolution of the Republic of Tajikistan from December 3, 2010 under #630 (Coordinating committee on trade policy, 2012).

Current center is created in the form of state unitary enterprise. This form can provide functioning of the center on general principals of industry and gives opportunities on effective utilization of facilities, which were obtained from rendered services and direct them to the improvement of the system and its infrastructures.

In order to provide transparency in the structure of Single Window regulatory system, a Coordinating Committee which includes representatives of responsible authorities and private sector is established. The work of the Committee is organized by the Ministry of Economic Development and Trade of the Republic of Tajikistan, which is the competent authority for the Program realization.

Program financing is planned to be from the grant funds and future profits of the system itself. According to the preliminary calculations, for the establishment and implementation of the Single Window system USD 2.5\$ millions is expected to be spent (Coordinating committee on trade policy, 2012).

However, lack of finance and resources has not allowed completing all the equipment provisions on the centers and border points of Tajikistan. As a result of this, above mentioned system is still on the stage of adoption and utilization. It is mentioned that after the full utilization of current system the number of documents executed will be twice decreased. In the meantime, Tajikistan is ranked 140 out of 176 on Index of Economic Freedom (2015).

World Rank	Country	Overall Score	Change from 2014	Fiscal Freedom	Government Spending	Business Freedom	Monetary Freedom	Trade Freedom	Investment Freedom	Financial Freedom
140	Tajikistan	52.7	0.7	92.1	81.9	65.4	69.6	75.6	25	30

Table 5.1. 2015 Index of Economic Freedom World Ranking

Source. Index of Economic Freedom. Promoting Economic Opportunity and Prosperity,

2015

Complicated trade procedures are not only the challenges that impede economic growth but also underdeveloped relations with neighboring countries are one of the main reasons for openness of transit corridors.

5.2 ADB's CAREC 2020 Strategy perspectives

The CAREC 2020 is anchored on a more integrated approach to improving transport and logistics infrastructure, and promoting trade and transport facilitation (ADB, 2014). Adopted in 2013 by ministers in 12th Ministerial Conference and recognized by all members of CAREC¹, the 108 projects covered almost all the significant issues of its members focusing on transport and trade facilitation. The total estimated cost for this project is equal to \$38.8 billion. These funds are planned to be used in six transport corridors, which are connecting Central Asian countries with China in the east, Middle East in the west, Russia in the north, and Afghanistan, Pakistan and India in the south.

Most of the CAREC countries are a land-locked country; thus they need much more cooperation and deep integration among themselves in order to enhance trade and economic activities, together with strong connections with the outside markets (Demir, 2015). Taking into account the wide network of roads and railways in CAREC countries, the corridors are anticipated to expand trade and accelerate regional economic growth (Asian Development Bank, 2014)

¹ There are 10 country members of CAREC: Tajikistan, Afghanistan, China, Uzbekistan, Kyrgyzstan, Kazakhstan, Mongolia, Pakistan, Turkmenistan and Azerbaijan. Development partners: ADB, EBRD, IMF, IDB, UNDP, WB.

Selection of CAREC corridors was based on the inclusion rule of at least two CAREC countries and the following five criteria:

- current traffic volume;
- prospect for promoting economic growth and future traffic;
- ability to increase connectivity between major population and economic centers;
- potential to mitigate delays (gauge change, BCPs ...);
- economic and financial sustainability of investments in infrastructure, technology and management (ADB, 2014).

The following Table 5.2 shows the detailed description of all the 108 projects distributed by sectors and their cost.

Summary of Investment Projects (\$ billion)

By cost estimates			
	Ongoing	New	Total
Road	11.4	13.2	24.6
Railway	4.1	6.1	10.2
Airport and Civil Aviation	0.5	0.9	1.4
Port and Shipping	1.0	0.1	1.1
Logistics	0.0	0.2	0.2
Trade facilitation	0.4	0.9	1.3
Total	17.4	21.4	38.8
By number of projects			
Road	3	35	36
Railway	2	15	17
Airport and Civil Aviation	10	5	15
Port and Shipping	15	2	17
Logistics	0	6	6
Trade facilitation	2	13	15

Total	32	76	108
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Table 5.2 *Summary of Investment Projects (\$ billion)*

Source. CAREC Transport and Trade Facilitation Strategy 2020. ADB, 2014

According to ADB estimation (2014), the trade turnover of CAREC countries will triple from 2005 until 2017 period averaging around 10% growth per annum over the period. Such optimistic forecast is based on the assumption of deepening regional trade and transport cooperation among the Central Asian states. Based on main trade directions transiting Central Asia Region, ADB came up with 6 transit corridor for CAREC countries.

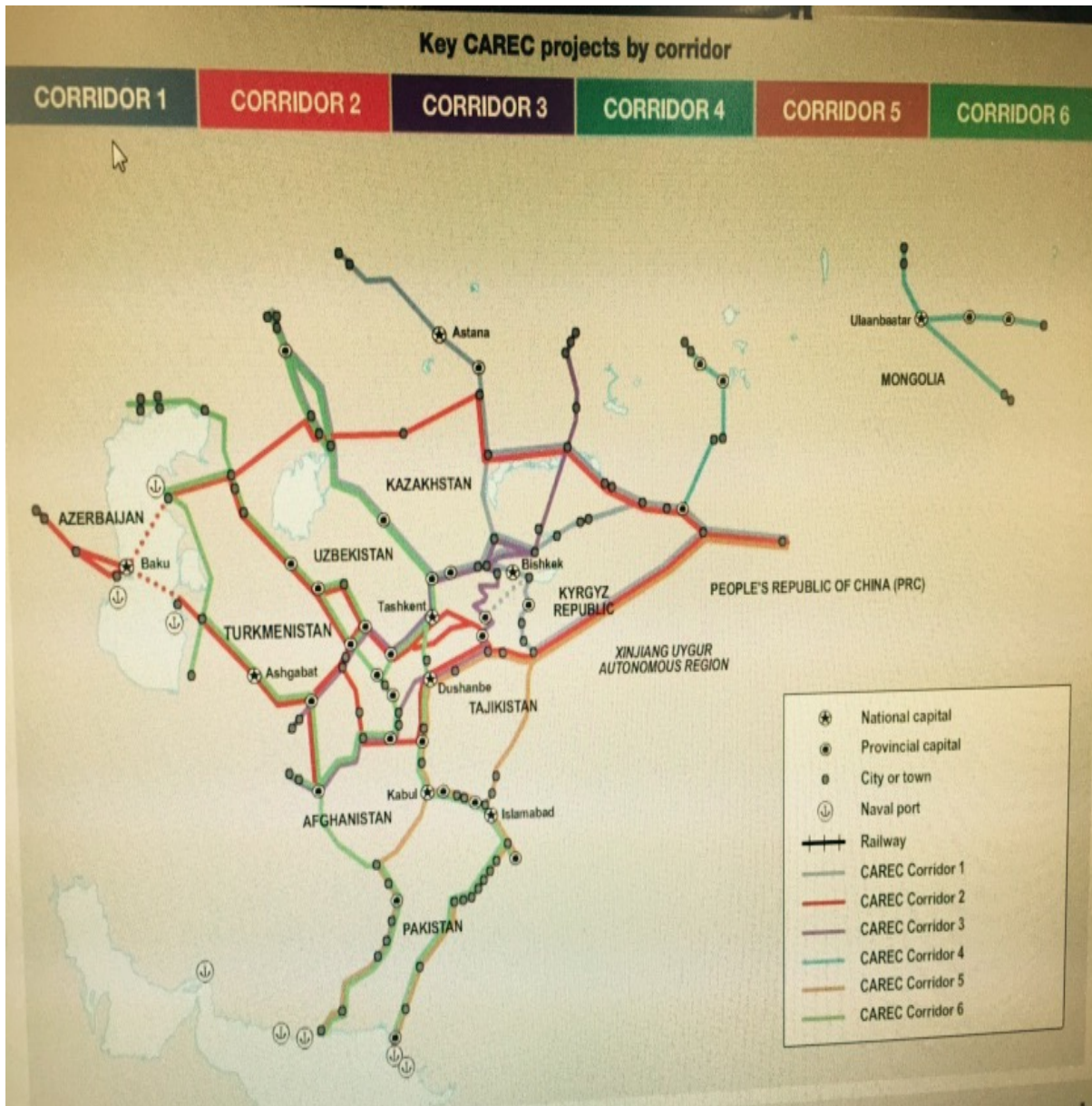


Figure 5.1 Map of CAREC Corridors

Source. Central Asia Regional Economic Cooperation, 2013

The main features of those corridors within the project include the followings:

- development of connectivity with seaports located within and external to the CAREC region;

- introduction of alternative routes to shorten journey distances along existing corridors;
- development of missing links to increase geographic coverage and interconnectivity between corridors;
- development of a rail network to serve the CAREC corridors, enabling them to realize the advantages of rail transport for long distance and bulk transport;
- establishment of intermodal hubs to support more efficient distribution and collection of goods.

Geographically Tajikistan's territory runs through four out of six corridors, but traffic varies sharply from corridor to corridor.

5.2.1 Corridor 2

Roads: 9900 km

Railways: 9700 km

Logistic centers: 6

This corridor is considered as the most comprehensive one among others which includes seven out of ten countries. Through Tajikistan a branch of this corridor named Corridor 2d starts from Sary-Tash of Kyrgyzstan going through Tajikistan and Afghanistan and joining Corridor 2b in Turkmenistan (ADB, 2014). The significance of current Corridor is an advantage of linking China to Turkey at the same time opening Bosphorus Tunnel to Europe (ADB, 2014). Moreover, it is considered as a heavy traffic route that would become a successful and smooth gateway of cargo carriage from Central Asian countries to the Europe.

5.2.2 Corridor 3

Roads: 6900 km

Railways: 4800 km

Logistic centers: 1

Most of the investment allocated in railway sector is distributed in this corridor. It connects Russian Federation to Persian Gulf countries via Kazakhstan, Kyrgyzstan, Tajikistan and Afghanistan. This corridor connects northern mining and forest regions with general commodity goods coming from Middle East states. To north of Tajikistan, the corridor passes through Merke of Kazakhstan and enters Chadovar, passing Karabalta-Gutcha of Kyrgyzstan and Sary-Tash. The corridor enters Tajikistan via Karamik cross border point at Tajik-Kyrgyz border. It passes through Jirgital – Vahdat – Dushanbe - Tursunzade route of Tajikistan and enters Uzbekistan territory at Saryasia cross border point. Next, the corridor passes through Termez and enters Afghanistan territory at Hayratan point heading to Bandar-Abbas of Iran.

5.2.3 Corridor 5

Roads: 3700 km

Railways: 2000 km

Logistic centers: 1

This corridor has a great potential for Pakistan, India and Arabian Sea markets to Chinese and Kyrgyz re-export goods. Moreover, this corridor has a future potential for Afghan and Pakistan agricultural and construction related goods. This is one of the most direct routes from China to Central and South Asia. From North it provides links to Chinese railway network from Kasha-Yirkeshitan area to Kyrgyz Irkeshtam crossing

point and is suitable for multi-modal and intermodal transport. Kyrgyz territory of the corridor passes through Sary-Tash and reaches Karamyk crossing point at Tajik-Kyrgyz border. It passes through Jirgital - Vahdat - Dushanbe and heads directly south towards Kurgan-Tube all the way to Nijniy Panj of Tajikistan border crossing point. At Afghan-Tajik border it enters Sherhan Bandar and Kunduz area of Afghanistan and continues to Kabul-Jalalabad crossing Pakistani-Afghan border at Landi Kotal crossing point. The area from Torkham of Afghanistan all the way to Irkeshtam of Kyrgyzstan is primarily a road network with limited railway sections.

CAREC's Corridor 5 or the Karamik transport route's significance has substantially increased economically and politically in recent years. It ensures vitality of road transport connectivity of Tajikistan with Central Asian states and China, following latest restrictive developments and policies of Uzbekistan towards Tajikistan, due to which transit of goods via Uzbek-Tajik BCP dramatically plunged in 2011. According to recent data, volume of transit of goods at Uzbek-Tajik crossing points in the north of Tajikistan dramatically plunged and significantly improved at Tajik-Kyrgyz crossing point in the east of the country. Tajikistan is keen to realize this project to ease strong dependence on transiting via Uzbekistan. Potentially this route would be multimodal corridor, which is an alternative route to Caspian Sea and Persian Gulf ports too.

Moreover, in 2010 the leaders of Afghanistan, Tajikistan and Iran made a political commitment, according to which a modern highway Kunduz (AFG) – Iran will be built in nearest future, which allows bypassing Uzbekistan and Turkmenistan (Asadov, 2012).

5.2.4 Corridor 6

Roads: 10600 km

Railways: 7200 km

Logistic centers: 5

This route is one of the longest CAREC corridors connecting European states with Middle East and South Asian countries. This multimodal corridor proceeds from Russia-Kazakhstan-Uzbekistan and entering Tajikistan in the north of the country at Bekabad border crossing point. It passes through Nau-Shahristan-Ayni-Dushanbe-Kurgantube to Nijni Pyanj border crossing point towards Afghanistan. The corridor then follows the same route as Corridor 5 becoming a transit route for Pakistani-Indian goods towards Russia and other East European states.

Despite its transit potential, current route is considered as the least reliable due to the political and economic relationships between Tajikistan and Uzbekistan. The transit of goods via Bekabad has stopped in 2011 and it is not performed yet (Asadov, 2012). However, Government of Tajikistan has been seeking to renew partnership with Uzbekistan; particularly, negotiations were made on opening a direct flight as well as railroads from/to the capitals of two countries which can be the first step towards opened and fruitful relationship between them.

5.3 Potential of Tajikistan's transit corridors: ambitions and politics

Central Asian transport corridors as part of the international transport system ensure significant international freight and to some extent, passenger traffic of the Central Asia. This system is composed of movable and stationary facilities, as well as set of technological, legal and organizational conditions. Due to growing volumes of cargo transportation, substantial rehabilitation and modernization of transit infrastructure is required. Thereby, international financial institutions are supporting projects in Central

Asia in order to revitalize trade in the region. One of the main goals is the construction of the roads.

In the frame of CAREC corridors, a highway of 113 km between Ayni and Penjikent was constructed and given into exploitation. One of the branches of this highway connects Dushanbe with Uzbekistan's Samarkand region, although it is only in the map. In reality, passing through the territory of Tajikistan it abuts against the border of the two countries (Faskhutdinov, 2015). With current situation of the two countries, Tajikistan and Uzbekistan, this road is risked to be an internal road, which reflects on its effectiveness value and payback of this road, as it was constructed on credits. It must be mentioned that, the time interval between Penjikent and Samarkand is only 40 minutes, but these days to get there another transit corridor must be used, which takes up to 10 hours (Faskhutdinov, 2015).

On the other hand, there is a perspective that observing the profitability of this road in the frame of CAREC itself, the two countries would come to a diplomatic decision to cooperate and avoid artificial barriers. Moreover, this step could rehabilitate the ongoing idea of the Great Silk Road.

An important element for development of a competitive transport system is availability of technologically modern logistics infrastructure. The lack of such infrastructure hinders the development of the region, not allowing Tajikistan fully use the potential of its geographical position. Until 2015, Tajikistan was set to establish three transport-logistical complexes, which should have been located in Hujand (north), Vahdat (center and east) and Nijni-Pyanj (south). These promising plans would have been

conducive not only for regional transit turnover passing through the territory of Tajikistan, but also, for the supply chain serving Tajikistan's regions. Moreover, it would have been especially important due to strategic location of Free Economic Zones in the northern and southern of Tajikistan. However, these routes are still under construction. It is worth to mention that the Government of the countries should not underestimate the impact of transport sector investment and its multiplier effect into the economy, while determining the final budget of the project. Such investments have social, as well as geopolitical implications not only for a country, but also for the entire region, which leads to broader impacts on the economy. Main transit corridors of the country directly impact from public investments to transport sector.

Usually *direct effect* of public investments is beneficial for workers and business that are engaged in the manufacturing of vehicles and control equipment, construction and facility stations. However, this situation is not applicable for Tajik economy, in the case that stated above manufacturing goods are fully imported.

The *indirect effects* offer opportunities in capital purchases (road equipment, special vehicles, spare parts, materials, etc.), and *induced effects* offer wages of construction workers and business that provide road maintenance services and consumer goods.

Although Tajikistan's official unemployment rate is rather low, 2.0 – 3.13 (Trading Economies, 2016), unofficially a steady higher rate of unemployment of the population is observed. Examination of implementation of Public Investment Projects reveals an inequality in terms of temporary employment opportunities. International financial institutions and bilateral Chinese loans in transport sector create hundreds of

jobs and millions of dollars worth contracts. Although transport road rehabilitation projects are often located in or near villages, local people are generally involved in the construction industry. Despite positive and integration related objectives of such investments, Tajikistan becomes strongly dependent and led by Beijing's regional trade dynamics, strong lobbying, vested interest and rent-seeking opportunities of elite groups (Peyrose, 2011). Chinese companies which have signed job contracts of goods and services, mainly tend to attract Chinese workforce, leaving only minor low-paying jobs for Tajik workers. Despite the visible advantage in quality of works of Chinese constructive companies, compare to local Tajik counterparts, equal opportunities shall be preserved while agreeing on terms of loans, especially in case of bilateral loans. Tajikistan's policymakers must recognize the impact of transportation policy on access to social and economic opportunities and address sector-specific vulnerabilities to corruption, as it is the case of economies of similar magnitude and historical background (Victoria Alexeeva et al, 2011) and a need to take a regional approach in trying to address the inequitable effects of transportation policy.

Transit of goods reflects "transport" attractiveness and level of integration of transport system in the regional transport system. It must be mentioned that Tajikistan is on condition of having enough cargo, but to ensure the effective development of transport system, it is still far from its potential to attract transit of goods. In fact, in recent years, the tendency of the Tajikistan's road cargo flows has been decreasing in the transit turnover (see Figure 5.3). One can argue about political and infrastructural traffic jam being caused by neighboring Uzbekistan as one of reasons for vicious realities, but

physical and non-physical barriers also add up to issues to be tackled in order to attract customers for the corridors.

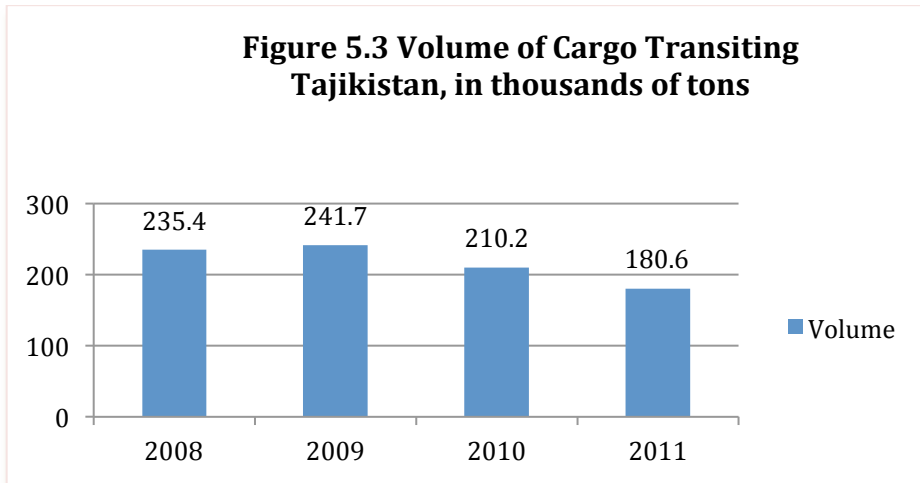


Figure 5.3 *Volume of cargo transiting through Tajikistan in thousands of tons*

Source. Asadov Shokhboz. Tajikistan's transit corridors. taken from Ministry of transport and communication of the Republic of Tajikistan, 2012

CHAPTER SIX

6. CONCLUSION AND POLICY RECOMMENDATIONS

6.1 Conclusion

Tajikistan needs to consider transit as a criterion for its 'transport' attractiveness, competitiveness, an indicator for development, and as an article for national exports. As analysis had revealed cost and time for the import and export are highest in Tajikistan among other countries in of Central Asia. Thus, only by integrating and developing regional cooperation with its neighbors Tajikistan can utilize its transit corridors and create new ones for the regional trade improvement. Moreover, there is no need to create new alliance for the integration or regional development. The current agreements and communities and organization such as CIS, SOC, EurAsEs, CAREC and other alliances are perfect for initiatives of creating transit routes which would eliminate trade barriers and open the seaports to landlocked countries.

On the other hand, poor infrastructure is also an obstacle for the full utilization of transit corridors. So, ability to maneuver and being active in terms of improving conditions and terms of corridors, along with political, intuitional and economic measures can serve as a key to success and viability of transport routes. Similar active position of the neighboring countries should serve as an alert and should induce Tajik authorities to be more proactive in terms of finding ways to strengthen the use of its transit corridors. The issue of high transport costs and long delivery time for import and export are the main factors, where Tajik authorities should work on. It must be mentioned that, further development of the transport sector of the Republic of Tajikistan contributes to the

development of related sectors of the economy, the creation of many new jobs and improve the social sphere of society.

As it was mentioned before, Tajikistan and all CAREC countries will be of great economic benefit from establishment and utilization of CAREC transit corridors. Tajikistan's strategic objective in this respect is to capture transit opportunities and enhance its corridors performance to facilitate trade and transport. In general, the creation of transport hubs linking the Central Asian countries contributes to the development of trade relations of these countries, as well as the deepening of integration processes.

Since Central Asian countries more or less on the same level of development and have almost same comparative advantage in agricultural products, so the trade between them is not so active and fruitful. But this is secondary reason as the main one is hostile relationship of neighboring countries. However, in current condition, when Russia has closed its borders for exports from most European countries, CA states can play a vital role and conquer Russian internal market with their products. This could increase trading between CA states.

Due to its unique geographical location and proximity of distance, Tajikistan must be on alert to capture transit income opportunities, as the Government of the Republic of Tajikistan also mentioned it. Following this perspective Kazakh Government has gone far in improving transit corridors and getting benefit at the same time. As both of the countries have same geographical situation, it can be said that both can win from using their transit potentials. However, Kazakhstan's infrastructure is considered more developed and adjusted, Tajikistan can improve its infrastructural sector from CAREC program. This opportunity gives Tajikistan not only well established infrastructure but

also transport and trade facilitation, which allows import and export for a lesser cost and time.

Moreover, development of transit routes can increase attractiveness of the country at the same time improving investment climate of the country. In conditions of integrating CA countries, investors could find a new market for investment and financing. As Chinese investors implement most of the current transport projects, integration with the neighbors could attract more international investors to the country, at the same time creating new job seats and reducing unemployment rate, which is considerably high in the villages of Tajikistan.

6.2 Policy recommendations

Based on the conclusions and research findings, the following recommendations are withdrawn for country's transport and transit improvement in order to develop and increase trade in CA region:

- Tajikistan's integration towards other CA states must be one of the country's main objectives. Due to being landlocked, CA countries only by cooperating can move out from the communication blockage, which is possible by opening borders and implementing and developing transit corridors for smooth trade and passenger flows;
- Taking as a base the "State Program for Development of Transport System in Republic of Tajikistan for 2025"-s goal of turning Tajikistan into a transit country in the region and improve the transport sphere, in particularly railway systems, which is the most used form of transport in the country;

- Implementation of Carnet de Passage system of customs control through the transit corridors in order to facilitate the cargo movement and decrease the cost and time for documentation procedure;
- In subsequent years provide highways with transport communications, advanced telecommunication systems and engineering infrastructure. Road construction standards must be carefully examined and closely monitored by the respective supervision authorities. In order to reduce construction and building costs modern energy-efficient and energy saving technologies shall be introduced;
- Full utilization of CAREC Corridors and cooperation in new projects with other CAREC countries, in particular related to the corridors transiting through Tajikistan (Corridors 2, 3, 5 and 6);
- Further development of Karamik transport route, shall provide Tajikistan in the short and long term a trump card for being an alternative transport route for importing and exporting goods of Tajikistan bypassing Uzbek territory. However, with such route the transportation cost increases;
- Another area where Tajikistan must improve and keep the score is establishment of technologically modern transport logistics facilities. The future of the modern transportation sector is in the creation of multi-logistic centers, capable to handle hundred thousand tons of cargo yearly. Such centers must be equipped with workstations for handling, refrigeration chambers, freezers, warming room, even the storage areas for hazardous goods and perishable foodstuffs;

- Improve the safety of the transport complex, which is relatively low. A further saving of this problem may cause a situation in which the domestic transport sector will not be able to cope with the growing needs of the economy. It can have a negative impact on the intensity of business activity of the economic entities, their effectiveness and, ultimately, can inhibit the planned by the Government of the Republic of Tajikistan the socio-economic development in the long term GDP growth.

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APPENDICES

Annexure I

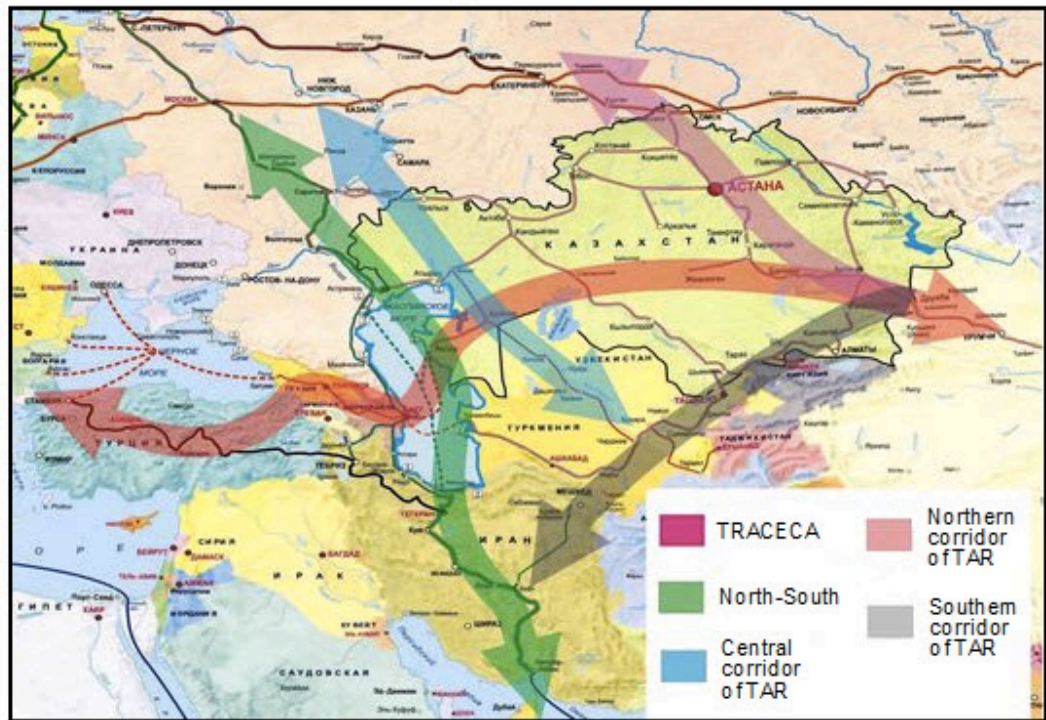


Map of Railway and road corridors connecting the Central Asia Regional Economic Cooperation member countries.

Source. ADB. Connecting Central Asia, 2006

Annexure II

International Transport Corridors in Kazakhstan



Source: Ministry of Transport and Communications of Kazakhstan

Map of International Transport Corridors in Kazakhstan

Source: Ministry of Transport and Communication of Kazakhstan, 2010

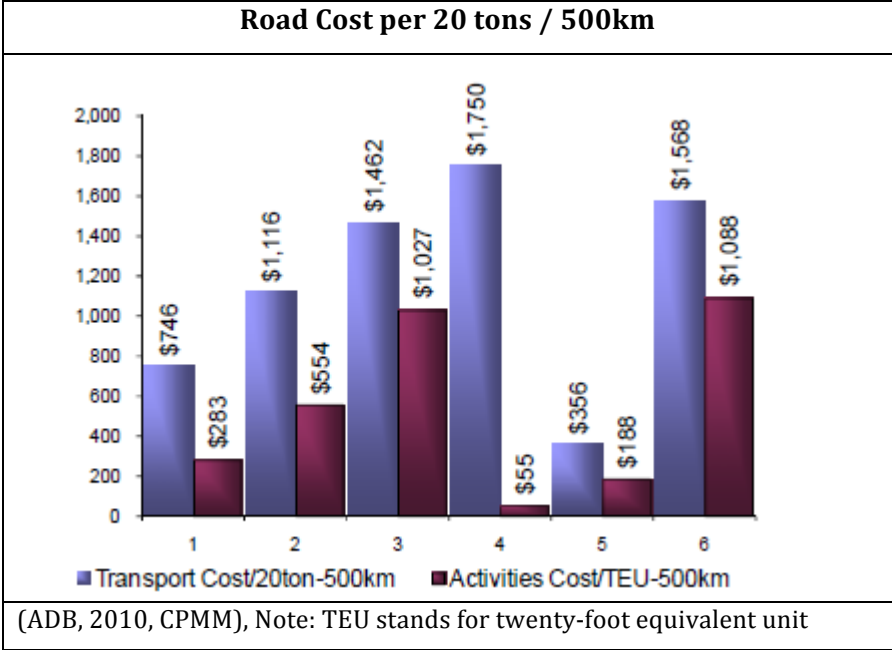
Annexure III



Regional Transport Corridors

Source. ADB, 2005

Annexure IV



CAREC Corridors costs of traveling

Source. ADB, 2010

Annexure V



Map of CAREC Corridor 5

Source. Asil Gezen, 2007