An Analytical Study of the Supply Chain with Respect to Transportation Between India and CIS Region

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ABSTRACT

Title: An Analytical Study of the Supply Chain with Respect to Transportation Between India and CIS Region.

The aim of the study is to analyze the existing supply chain with respect to the transportation of various goods and commodities between India and Commonwealth of Independent States (CIS) [1] region. India's trade with CIS during the year of 2006-07 was USD 5.3 billion[2]. However, the total trade turnover between India and CIS region has been volatile since 2001-2002.

Problem:

Supply chain management is one of the most critical activities in case of commodities. Traders need to streamline their logistics cost in order to remain competitive in the international market. In India, logistics cost as a percentage of GDP adds up to 13%. The comparative figure for US is 8.7%, Japan 11% and Europe 12%[3]. Indian traders are generally small (in terms of value of trade turnover per year). This restricts their investment ability and also the risk taking capability. As the knowledge sharing in this industry in India is relatively lesser than that is other countries, it becomes even more difficult to use common channels for supply by a group of traders.

In India, transportation is one of the major cost elements of the supply chain and accounts for nearly 40% of total cost of logistics[4].

1. The Commonwealth of Independent States (CIS) was established on December 8, 1991, by the Minsk Agreement signed by the Heads of States of the Republic of Belarus, the Russian Federation and the Republic of Ukraine.

2. Sourced from Directorate General of Commercial Intelligence & Statistics (DGCIS), Ministry of Commerce & Industry (MOCI).

3. Sourced from an article on "Maritime logistics" in Livemint

4. The logistic challenges of doing business in India by Mike Kilgore, President Chainalytics LLC; Abraham Joseph, Managing Director for India, Chainalytics, LLC; Jeff Metersky, Vice President for strategic Planning, Chainalytics LLC – Ligistics Management, 2/1/2008.

Although the road network in India is one of the largest in the world but only 20% is in good condition and also road traffic has been increasing at the rate of 10% per year since 1951[1]. Deficiencies in the road network and congestion at the ports and less developed aviation systems hold back the foreign investments in India. The road freight industry consists of small players and total transport function is also shared among many players.

There is almost no road connectivity for trade purposes between India and CIS, so most of the times exporters and importers have to take the sea route only. Indo-CIS trade primarily moved through the Black Sea ports of Odessa, Illichevsk and Kherson. But over time on account of increasing goods traffic from Central Asian Republics (CAR), there has been increase in transit costs including rail freight. These alongwith transit delays have started making transport through Black Sea route uneconomical. One viable alternative appears to be international trade cargo movement through the ports of Bandar Abbass and Bandar Khomeini in the Persian Gulf and by the land route across Iran. The trade through land route will not only generate foreign exchange for every country on the route but it has the potential to provide a lot of employment, enhance multicultural activities and people to people contract.

Some of the land routes have been used intermittently. But the new ones in consideration in this study are through Pakistan, Afghanistan, Iran, and one through China. Although India is not on very good terms with these neighbours, the opportunity of increase in trade and the consequent economic benefits may encourage these countries to give serious consideration to development of alternative trade routes proposed in this study.

India has 11 major ports but most of them are lacking in many facilities like night navigation, latest equipments etc. The road links to ports are highly congested which pose serious issue.

So far, there has not been much work in regard to development of land route from India to CIS region via Pakistan, Afghanistan, Iran or China. India has the potential to network with CIS via Iran through more intensive use of land routes for greater trade.

[1] Sourced from "Impact of transportation infrastructure on logistics in India" by Vijayaraghavan, T A S dated 23 May 2007.

Viability of the study

A cut in transport costs will make Indian goods cheaper and, therefore, more competitive in CIS countries as well as European markets via Russia. The land route will not only boost India's trade with CIS countries and Iran but also that with the Baltic States and the Central Asian Region.

In order to pave a way to overcome the problem, the present study envisages to fulfill the following objectives.

Objectives:

a) ***To study the composition of supply chain between India and CIS countries with respect to Transportation.***

It is virtually inconceivable in today's economy for a firm to function without the aid of transportation. Transportation is an essential and a major sub-function of logistics that creates time and place utility in goods. In fact, the backbone of the entire supply chain is the transportation management that makes it possible to achieve the well known seven Rs- the right product in the right quantity and the right condition, at the right place, at the right time, for the right customer at the right cost.

The importance of transportation should also be seen by looking at its impact on a country's economy. The major infrastructure required for moving goods from one place to another in India involve the active roles of Roads, Road Freight Industry, Railways, Ports and Shipping, and Pipelines, all of which are either managed or regulated by the government.

The deficiencies in the road network in India are causing huge economic losses because of slow transportation. The delay on the roads and ports also results in high inventory cost for the industry, thus affecting its competitiveness vis-à-vis

international industry operating on JIT (just-in-time) principles. The congestion at the ports and the insufficiently developed air services also affect foreign investment decisions, which often place a great premium on the infrastructure. International trends indicate that with the growth of the highway and aviation technologies, the traffic tends to shift away from the Railways. However, in the continental economies like United States, China and Russia, the Railways have maintained their dominance. India's size, geography and resource endowments also mandate a dominant role for the Railways, not to mention the environmental considerations, which in recent years have caused a rethinking even in the developed world.

This study would emphasize the need for a land route to make the trade between India and CIS countries much more viable. Reduction in the transportation cost by using a land route for transportation would help make the Indian goods competitive in CIS market.

b) To study the viability of land route from India to CIS countries

This land route development is a critical issue for both India and CIS countries. The reason behind is the pricing of commodities. Currently the route followed by the traders is multimodal. It is a mix of air, sea and land routes. While air route is very expensive, sea route is both costly and time consuming. Air route takes very less time but given the pricing mechanism of products if the quantity traded is not high the per unit air fare becomes very high. For sea route, on the other hand, the time taken is very high as generally the route which is taken is a very long one and also the insurance costs makes the shipping even more expensive option.

A land route between the regions would help Afghanistan and Pakistan benefit from the trade between Central Asian States and India. The trade route would not only generate substantial income for the cash starved Afghan Government, but it will also help improve Pakistan's relation with arch rival India as well as with CIS countries.

For Afghanistan, the issue of having a land route to India is more urgent: India used to be Afghanistan's largest trading partner until 1979. Revival of land trade route would bring much needed cash into Afghanistan, providing a push to the economy and a vote of confidence in a country brutalized for years.

A viable and all time running land route would boost the trade dramatically. It would help India strengthen its trade relationship with CIS countries as well as countries like China and Pakistan. It would be a positive step towards better relations with the neighbours.

c) To study payment procedures followed in trade between India and CIS

Here the attempt is to study the current payment systems those are in practice in CIS countries. A detailed study of the legal payment systems like cash in advance, consignment sales, letter of credit etc is done. There is abundant trade which is taking place through Hundi system. The existence of such system along with the need of same has been studied in detail.

The primary purpose to study various payment procedures is to find out the deficiencies in the payment systems and how can it be streamlined to make it hassle free thereby encouraging more number of traders to participate in Indo-CIS trade.

Scope:

The study is restricted to the transportation for commodities and goods from India to CIS countries. Not withstanding the restricted scope of the study, it will help in identifying weaker areas of the supply chain in terms of transportation from macro as well as micro view points and recommend suitable strategies. There are many things to be seen in case of transportation to CIS countries. On the surface these things might look small but they affect trade practices heavily. How an issue of custom practices in India and CIS affect the trade volume is a case in point. Another example could be viability of land route which is very important aspect to study.

Limitation:

Major limitations were non availability and reliability of corporate data. Non availability of a database having the details of firms trading with CIS countries was a major limitation. Many a time, corporate was not ready to reveal trade related information/data as they suspect the motive of survey. On the other hand there are many traders who are comfortable with these kinds of surveys but still hide many trade related useful information. In such cases it is difficult to check the authenticity of the data.

Methodology:

A study was initiated to find out the following variables among the exporters/importers from India. This helps in defining the composition of the land route.

Also help from secondary sources obtained in analysing the composition of the Transportation.

Variables measured in the survey are total export/import, the target market, nature of business, understanding and perception of the trade formalities like code, description of item, custom procedure etc., and payment procedure. These include various infrastructure and logistics apart from extra transaction cost incurred by the trader due to various procedural measures and malpractices on part of government authorities.

Snowball sampling method was followed. The database of exporters and importers having trade relations with CIS countries was generated through internet search. In addition, as the second step, industry associations like Confederation of Indian Industry (CII), Federation of Indian Chamber of Commerce and Industries (FICCI), PHD Chamber of Commerce and Industry (PHDCCI) were contacted. A database was purchased from Federation of Indian Export Organisation (FIEO) containing the list of Indian companies involved in export & import but it had had only few firms dealing with CIS.

Relevant export promotion bodies in various major cities of India (Delhi, Mumbai, Kolkata & Bangalore) like FIEO, Indian Tea Association, Chemicals and Allied Products Export Promotion Council, Engineering Export Promotion Council, Agricultural and Processed Food Products Export Development Authority (APEDA), Soybean Export Promotion Association (SOPA), Rice Exporters Association, Bombay Chamber of Commerce were also identified and list of exporters was obtained. But when these exporters were contacted almost all of them denied that they were trading with CIS. Thus majority of the exporters and importers were identified through references.

The sample size was 57 traders in four cities across India namely, Delhi, Kolkata, Mumbai, and Bangalore. Apart from direct exports and imports, indirect exports and imports have also been seen at the time of interview.

The data then are processed to arrive at three transportation alternatives, out of which one has been extensively used by the traders as of now. The routes are compared on basis of distance. Each route is detailed with respect to distance and efforts are made to find out the best possible route.

Basic method of payments used by the exporters and importers are cash in advance, letter of credit, documentary collection or draft, open account and other methods like consignment sales etc. But with every payment method there are some risks involved. In any transaction it is tried from each side that their risks are minimized. Efforts are made to understand the payment through each mode and an analysis is also offered on illegal method of payment, which is known as *hawalla.*

Data Analysis and Major Findings:

Following are supply chain composition in terms of transportation from survey in case of three different products.

CASE A:

Name of commodity: Meat

Exporter: Delhi

Slaughtering, De gland and De boning is done in Meerut in UP.

Mumbai: It reaches Mumbai at exporter's cold storage in 72 hrs at cost of Rs 4/kg

Bandar Abbass: From exporter's cold storage Meat goes to Mumbai port. Before that at cold storage packaging and labeling is done. Then according to demand it is sent to Mumbai port. This particular activity takes around 8 days. From Mumbai port the meat goes to Bandar Abbass in 6-7 days. For this ocean freight is around USD 1800-2000. CHA charges around Rs.12000 per container.

CASE B:

Name of Commodity: Drugs

Exporter: Mumbai

Exporter's factory: at factory, packaging and labeling is done. Insurance of the consignment is also done. Transportation costs around Rs. 150 to 200 per kg. It includes the charges for clearance at the airport. Insurance charges are .25% of the invoice value.

Packaging & labeling takes around 5 hrs and inspection around ½ hr. From factory to Mumbai airport takes 1 day.

Mumbai airport: custom clearance & inspection is done which is managed by freight forwarder. Air freight charges from Mumbai to Tehran come around Rs 110 per kg.

Customs clearance and inspection takes around 1 day and cooling period also takes around the same time. Mumbai to Tehran it takes around 2 hrs.

CASE C:

Name of commodity: Aluminum sheets

Exporter: Kolkata (sea)

Renukot: Costs around Rs 30000-35000 inclusive of loading and transportation charges from Renukot to Kolkata at exporter's godown. Time taken is around 4 days.

Kolkata exporter's godown: CHA files documents for clearance. Charges are around Rs 2500.

Pick up container from exporter's warehouse for checking and stuffing the container. Charges around Rs 2000-2500 for 20 ft container. After appraisal by custom officer container goes to Kolkata port. Port charges from the custom warehouse is around Rs 1100 (public goods) and Rs. 2000 for private goods. Consignment remains there for around 2-3 days depending upon the availability of the feeder vessel.

Kolkata port: from here container goes to Bandar Abbass via Singapore by ship. This takes around 17-21 days.

Singapore: transshipment of goods is done at Singapore and then goods move to Bandar Abbass which takes around 12-14 days. Transshipment takes around 1-2 days at Singapore .

Export of goods to CIS countries

- 17% of the traders interviewed feel that customs procedures are more complex when exporting to CIS than when exporting to US/UK in similar products.
- More than 25% of the traders feel difficulty in understanding codes.
- A large percentage feels custom classification as a problem. As these issue elongate a trade transaction time, they make business people feel distracted from trade.

- 14% of the respondents told that they have problems with rules of origin for exports to CIS.

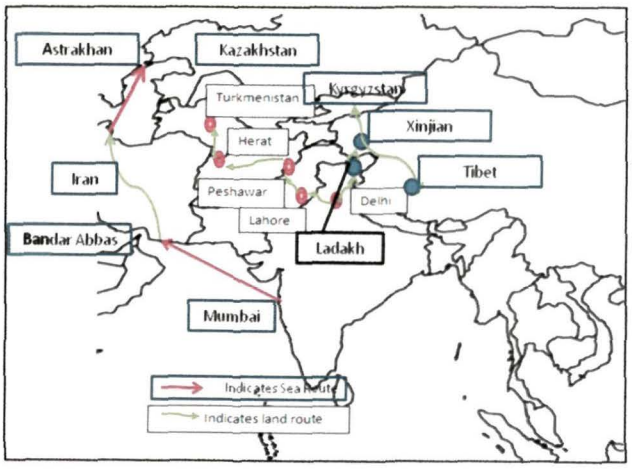
Import of goods from CIS countries

- 22% of the respondents feel that customs procedures are more complex when importing from CIS than when importing from US/UK in similar products.
- Many respondents told that Customs generally mentions that the categorization is not clear, so please submit the catalogue.
- Almost One third of the respondents told that customs valuation pose problem for them.
- Importers use industrial tribunals for dispute settlements but still the percentage is very low.

Existing routes and Proposed Land Routes:

North-South Corridor: New Delhi, Moscow and Teheran signed an agreement in St. Petersburg on September 12, 2000 for sending Indian Cargo to Russia through a 'North-South Corridor'[1].

According to the arrangement Indian goods will be sent from Mumbai or Okha to the Iranian hub of Bandar Abbas via the Strait of Hormuz in the Persian Gulf. From here, containers will be reloaded on trucks or railway wagons and dispatched to the Iranian port of Anzali on the Caspian Sea. After transshipment at Anzali, goods will be loaded on ships and taken to the Russian port of Astrakhan.



x Sketch of Existing and Proposed Land Routes

Astrakhan, in the past, has been the springboard for expanding Tsarist Russia's influence towards Central Asia. The land route from Astrakhan to the Russian mainland is straightforward and containers from here can be sent either to Moscow or St. Petersburg.

India-China-Kyrgyzstan Route: China is connected by road to Kyrgyzstan through the Xinjiang province. India could use this road by constructing a link road in Ladakh joining the Tibet-Xinjiang road. Ladakh is already linked by road with Himachal Pradesh. Therefore, connectivity is what India and the CIS should focus on if existing relations need to be strengthened.

India-Pakistan-Afghanistan-Turkmenistan Route: The shortest route from India to the Central Asian republics is through Pakistan and Afghanistan. Goods from Delhi can be transported from Lahore, Peshawar, and Herat to reach Turkmenistan. However, the route to booming trade and economic development is not without obstacles. The potential of the transport corridor will be determined by the funds available to upgrade their rail and road networks and other related infrastructure. However, the potential for Indian-Central Asian trade has been hamstrung by the India-Pakistan rivalry.

1 International North-South Transport Corridor (INSTC), is a multi modal transportation established in 12 SEP 2000 in St. Petersburg, by Iran, Russia and India for the purpose of promoting transportation cooperation among the Member States. This corridor connects India Ocean and Persian Gulf to the Caspian Sea via Islamic republic of IRAN, then is connected to St. Petersburg and North European via Russia Federation. The INSTC was expanded to include eleven new members, namely: Republic of Azerbaijan, Republic of Armenia, Republic of Kazakhstan, Kyrgyz Republic, Republic of Tajikistan, Republic of Turkey, Republic of Ukraine, Republic of Belarus, Oman, Syria, Bulgaria (Observed). (Source: website of International North-South transport corridor).

While considering alternative routes between Indian and CIS countries, the researcher found that the best route would be India-Pakistan-Afghanistan-Turkmenistan because the distance is shortest compared to India-China-Kyrgyzstan route. The shorter route will reduce transit time and transportation cost. Also, the India-China-Kyrgyzstan route via Ladakh may not be operational during winter months due to heavy snowfall.

Conclusion and Recommendation for further studies:

1. Most of the traders in one way or the other is using sea route. As the sea route is longer than the possible land routes, the budgets for transportation consume large part of investment if the sea route is taken. In such condition as it has been proved above that land route is very economical, efforts should be made from both the sides to develop an efficiently working land route.
2. Both the countries should reduce the custom procedures for each other or should at least try to make them less complex.
3. Healthy and transparent trade practices should be promoted for long lasting relationships.

Both India and CIS need to work together to establish some kind of bilateral or multilateral arrangement to facilitate the smoother transport of the goods. Land route to CIS countries via either Pakistan or China can reduce the cost of transportation drastically. It would automatically make the Indian goods competitive in the CIS market. Both the sides should try and enter into bilateral agreements on customs. These agreements not only give direction to the trade but also they benefit it in more positive way. Also a sense of compulsion comes in which in many situations turns into better performance. In this sense giving each other status of most favored nation can also help. This would serve as an incentive for businessmen wanting to do business in both the countries. Not only this but both the countries should sit together and discuss a plan about how they can leverage upon each other's researchers. These researchers if carry a detailed study which is free from biases can indicate major loopholes in each other's system which can be rectified to improve

the trade relations. Also this will provide enthusiasm the otherwise scared businessmen to do business in these countries.

The trade relations between India and CIS are weak because of less developed financial institution network between the two. Both the countries should try to develop direct relations between existing or newly formed financial institutions and banking agencies. This would help in clearing a trade transaction much faster than today. Also as this is one of the main inhibitions in the business community, this is something which should be taken care of as soon as possible. This would also help in reducing the illegal practices like Hawala trade.

Security is one of the major concerns for every country today. As we are globalizing more we are getting entwined in a close network. If the countries start cooperating on the security front then it will become easier for the countries to rely more upon each other. Both the countries should also try to create regional/sub-regional avenues for cooperation between the CARs and South Asia.

For the recommendations on further studies, it can be said that later on a comparison of non branded and branded product supply chain could be taken up. This would not only show up the loopholes in each of them but also will give direction as in which practice of one supply chain can be implemented in another. To improve this study more if the direct contact with the traders in CIS is possible then it would add more authenticity to the study. Also some live case studies can be incorporated as the part of study.

Declaration

I, Nilkamal Mandal, Research Scholar in the Department of Business Administration, School of Management Sciences of Tezpur University, Assam, hereby declare that the research work titled **"An Analytical Study of the Supply Chain with Respect to Transportation Between India and CIS Region"** is a bonafied work carried out by me under the supervision of Prof. Mrinmoy Kumar Sarma. This work has not been submitted elsewhere for any other purposes.

Date. 26/06/2009

Nilkamal Mandal.

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This is to certify that the thesis entitled **"An Analytical Study of the Supply Chain with Respect to Transportation Between India and CIS Region"** submitted to Tezpur University in the Department of Business Administration under the School of Management Sciences, in partial fulfillment for the award of the degree of Doctor of Philosophy in Management is a record of research work carried out by **Mr. Nilkamal Mandal** under my personal supervision and guidance.

All help received by him from various sources have been duly acknowledged.

No part of this thesis has been submitted elsewhere for award of any other degree.

Mrinmoy Kumar Sarma 26/6/09

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Preface

A supply chain is a network of facilities and distribution options that performs the functions of procurement of materials, transformation of these materials into intermediate and finished products, and the distribution of these finished products to customers. Supply chains exist in both service and manufacturing organizations, although the complexity of the chain may vary greatly from industry to industry and firm to firm.

The study has been divided into chapters. The first chapter contains introduction to supply chain management and its various components. In the section on "Domestic supply chain", the supply chain in India has been analysed with respect to transportation covering roads, rails and ports. International supply chain features are also covered to compare it with Indian supply chain. Results of a study on Logistics Performance Index have been discussed to understand the relative position of India with respect to the world.

The next chapter focuses on the history of CIS countries, economic activities in the area, trends in the trade with to CIS countries, major trading partners in CIS region, major export and import items, trade relations with CIS countries etc.

This is followed by an explanation of the need for this study and objectives to be achieved through it. India-CIS trade has been increasing in the past few years. To make it more attractive, logistics cost has to be decreased. One way of doing this is by finding the viability of land route through India and CIS countries. Firstly, an attempt has been made to understand the composition of supply chain between India and CIS countries with respect to transportation.

Thereafter, various land routes have been identified which can possibly be used in India-CIS trade. These land routes have been compared based on reduction in cost, distance, time, security etc. to come up with the best alternative.

In the next chapter on supply chain in CIS countries, the existing transportation channels from India to CIS countries have been analysed. Most of the trade is multi modal in nature. Sea route from Mumbai to Bandar Abbas features in most of the trades. Other rail/road transportation facilities through Europe and Central Asia, Russian Far East, Baltic Republics, Caspian Sea and China Route are discussed. The existing multi-modal route (North-South Corridor) as well as proposed two new land routes are also discussed. First route is India-China-Kyrgyzstan Route and the second route is India-Pakistan-Afghanistan-Turkmenistan Route. Attempt has been made to find out the total distance, cost, time taken and security issues for all the routes. Both the new routes are compared with the existing route to find out the actual savings in using the proposed routes. Technical feasibility and hurdles are highlighted for both the proposed routes.

Payment procedures have also been analyzed to find out the deficiencies in the payment systems and how they can be streamlined to make them hassle free thereby encouraging more traders to participate in Indo-CIS trade.

In the next chapter of the study the data collected through questionnaires have been analysed.

This analysis showed many intricacies of the business and also provided some pointers for further studies in the last chapter. Also, it provides direction in which the governments of both regions should work to lessen the procedural burden on the business people and also try to simplify the processes so as to reduce their losses in terms of money and time. Recommendations for further study are also given.

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I have also been provided with extensive library and computer facilities in Tezpur University, IIFT, New Delhi, MDI, Gurgaon, IIT, Delhi and JNU, New Delhi. My sincere thanks go to these organizations and their staff.

I have shared a lot of enthusiasm from my elder brothers. My sincere regards to Hiranmoy Mandal and Dipak Mandal for their valuable support and encouragement.

My wife Parna's unending love for this work has given me invaluable co-operation and encouragement in all the phases. Virtually she is the spirit and soul of this work. Without her earnest desire and support the present work would not have been possible. My love and regards to her is immense. Also, I can't forget the love given to me by my son, Navneel. Without knowing much about Ph.D or research , at every stages of this work he has given me the courage to accomplish it

Finally, I would like to pay my deep regards to my father and my mother, who with their blessings and support have acted as a sunbeam to show me the right direction.

CHAPTER - 1

1 INTRODUCTION

1.1 Supply Chain Management

A supply chain is a network of facilities and distribution options that performs the functions of procurement of materials, transformation of these materials into intermediate and finished products, and the distribution of these finished products to customers. Supply chains exist in both service and manufacturing organizations, although the complexity of the chain may vary greatly from industry to industry and firm to firm.

Supply chain management (SCM) is the oversight of materials, information, and finances as they move in a process from supplier to manufacturer to wholesaler to retailer to consumer. Supply chain management involves coordinating and integrating these flows both within and among companies. SCM is typically viewed to lie between fully vertically integrated firms, where the entire material flow is owned by a single firm and those where each channel member operates independently. Therefore coordination between the various players in the chain is key in its effective management. It is said that the ultimate goal of any effective supply chain management system is to reduce inventory (with the assumption that products are available when needed).

SCM flows can be divided into three main components (Infoscaler, 2001).

- The product flow
- The information flow
- The finances flow

Product flow: It includes the movement of goods from a supplier to a customer, as well as any customer returns or service needs. The global supply chain only works smoothly, if the internal product flow is organized perfectly. Product flow management, when properly employed, blends a variety of tasks to bring the supply chain into harmony.

Information flow: It involves transmitting orders and updating the status of delivery. Timely supply chain information can pay off handsomely in lower costs, less inventory, improved throughput, shorter cycle times, and the highest levels of customer service. The very essence of supply chain management is effective information and material flow throughout a network of customers and suppliers. By using the Internet, companies simply have better and more far-reaching ways to speed up the information flow process and make it more effective.

Financial flow: It consists of credit terms, payment schedules, and consignment and title ownership arrangements. A central issue for all supply chain partners, however, is the financial flows that distribute the financial resources common to virtually all traded economic activities. Without such financial flows, individual supply chain partners cease to function, and the collaboration among such partners common in contemporary supply chains becomes impossible. Alternatives to financial flows such as bartering do not provide the flexibility necessary for the coordination and operation of the complex, geographically dispersed systems that are contemporary supply chains. From the operations perspective traditionally adopted by supply chain management researchers, financial flows are seen as a routine, almost automatic corollary of product and service transmission within and across organizations. Their most important feature is the fact that they enable transmission of material, products, services, personnel, or information. The cost associated with them is also relevant, although it is not explicitly recognized in any of the main supply chain management models. Dealing with the specifics of financial flows, and with their cost implications, is left to specialist functions such as financial managers and management accountants.

1.2 International Supply Chain

According to Mr. Remy Moreau (2008), "Extending a supply chain beyond borders obviously lengthens the chain and results in exposure to greater variables. These variables can include border crossings, multiple modes of transportation and multiple hands-offs, different government systems, technology issues and security concerns. Every one of these variables presents opportunities for errors that can stall the entire supply chain. Companies that operate globally are under greater pressure

than their domestic counterparts to actively manage their supply chain. The risks inherent in managing a global supply chain mean that companies need to be constantly conducting cost-benefit analyses. Sourcing overseas may be less costly, but the risks could outweigh the benefits in the long run."

International supply chain entails additional considerations (MacDonald, 2006):

1. **Security**: When the supply extends beyond domestic borders, a whole new level of security comes into play.
2. **Port Issues**: If a company is shipping by ocean, they absolutely need to consider capacity issues and route their goods accordingly.
3. **Tax and Tariff issues:** Make sure that manufacturing or sourcing overseas is as low cost as they think it is. Tax and tariff regulations differ according to country. Something as basic as the way a product is packaged can change its entire tariff structure.
4. **Partnerships with local experts:** Extending the supply chain into another country requires in-depth knowledge of how that country operates. Partners, either through third party logistic provider (3PLs) or directly, are often critical to success.
5. **Cultural differences:** Misunderstanding the culture can wreak havoc on the planning.
6. **Technological abilities and capabilities:** A global supply chain often requires an even greater investment in technology to improve visibility.
7. **Risk Management:** With a global supply chain, the possibility of things going wrong is greater and often more costly to fix. Knowing what the risks are and planning for them in advance is critical.

1.3 Domestic Supply Chain

There are certain elements that are required to manage any supply chain regardless of whether it's domestic or global. Things like visibility, technology and flexibility are basic ingredients that need to be incorporated seamlessly in order for a supply chain to function efficiently regardless of the length of the chain. Technology speeds the supply chain and creates visibility. Visibility is another key element. This is particularly critical in order to allow companies to manage their supply chain

strategically, identifying various points throughout the supply chain where goods can be held to reduce the risk of delays. Achieving visibility is far easier domestically than globally. Flexibility is also critical to the success of the supply chain. Companies need to ensure that both their supply chain and their partners can readily integrate alternate locations should circumstances dictate quick response.

1.3.1 Transportation

It is virtually inconceivable in today's economy for a firm to function without the aid of transportation. Transportation is an essential and a major sub-function of logistics that creates time and place utility in goods. In fact, the backbone of the entire supply chain is the transportation management that makes it possible to achieve the well known seven Rs- the right product in the right quantity and the right condition, at the right place, at the right time, for the right customer at the right cost (Transportation Infrastructure, 2009).

The importance of transportation should also be seen by looking at the impact of transportation on a country's economy. Studies reveal that in India the total logistics costs constitute nearly 13 percent (Manoj, 2008) of the gross domestic product (GDP) out of which nearly 40 percent is because of transportation alone (Kilgore, Joseph, Metersky, 2008) . In the U.S, the estimates show that the cost is around 6 percent of the gross national product (GNP). The major infrastructure required for moving goods from one place to another in India involves the active roles of roads, road freight industry, railways, ports and shipping, and pipelines, all of which are either managed or regulated by the government (Vijayaraghavan, 2007).

1.3.1.A Road Network

India has one of the largest road networks in the world. The growth rate in road traffic has been 10 percent since 1951 (Vijayaraghavan, 2007) and would have gone higher had there been a larger and penetrative road network. Only 20 percent of the surfaced roads are estimated to be in good condition. This compares unfavorably with other countries (Indonesia and Brazil 30 percent, Korea 70 percent, Japan and U.S. more than 85 percent). National Highways (NHs) are the main arterial roads connecting ports, state capitals, industrial and tourist centers, and neighboring

countries. NHs constitutes less than 2 percent of the total road network, but carry nearly 40 percent of the total road traffic (Vijayaraghavan, 2001).

Deficiencies in the road network are causing huge economic losses because of slow transportation. The delay on the roads and ports also results in high inventory costs for the industry, thus affecting its competitiveness vis-a-vis international industry operating on JIT (just-in-time) inventory principles. The congestion at the ports and the insufficiently developed air services also affect foreign investment decisions, which often place a great premium on the infrastructure. International trends indicate that with the growth of the highway and aviation technologies, traffic tends to shift away from the Railways. However, in the continental economies like United States, China and Russia, the Railways have maintained their dominance. India's size, geography and resource endowments also mandate a dominant role for the Railways, not to mention the environmental considerations, which in recent years have caused a rethinking even in the developed world.

1.3.1.B Road Freight Industry in India.

Road freight industry plays a very important role in the logistics industry in India as it accounted for 4.6% of India's GDP in FY08 (as per data released by Central Statistical Organisation). Road Freight industry in India is highly fragmented and unorganized. The unorganized sector occupies for nearly 80% of the market share. It accounts for over 60% of goods traffic and over 80% of passenger traffic (Outlookarena. 2009).

Road freight transport can be further classified into primary and secondary transportation. Primary transportation is one that covers distance not less than 50 km and over 1,000 km. Primary road freight accounts for over 70% of the Rs 1.42 trillion road freight industry. In the past ten years the road freight segment has reported a compounded annual growth rate of 8.9% and is expected to sustain this growth momentum in the coming years (Outlookarena. 2009). The same has been on account of earlier infrastructural investments. The capital expenditure was primarily focused on building network of roadways to enable transportation, which has resulted in a vast network of roads. It is also well connected in comparison to the

other modes of transport. Thus, road transport gains on account of route flexibility that enhances reach.

As mentioned above, the road freight industry stands out unique with the majority of the market share held by the unorganized sector. Out of the entire market size of approximately Rs. 38,000crores, Rs 6000 crore are with the organized sector and the remaining with the unorganized sector (TCIL, 2008). The National Highways (NH) form only 2% of the entire road network in India, but handle over 40% of the national road freight traffic, putting enormous pressure on the highway infrastructure (TCIL, 2008). Also, on an average a commercial vehicle in India runs at a speed of 20 miles per hour (mph) compared to over 60 mph in the mature logistics markets of Western Europe and the USA (Ojha, 2007).

Profile of the road freight industry:

1 The industry continues to comprise small operators accounting for as much as 85 percent of the total fleet. The industry generates considerable local employment opportunities.
2 The total transport function is shared among several players. For example, operators perform only the haulage function, while the marketing, aggregating, storing and delivery functions are undertaken by agents and brokers.
3 The two principal manufacturers of trucks, TELCO & Ashok Leyland, account for more or less the entire fleet of heavy vehicles in the country (Vijayaraghavan, 2007). Owing to their monopoly, technology and price are dictated by the sellers market.
4 The industry productivity could be further improved since only one-third of the trucks operate between 300 to 400 km per day and about 12 percent of trips are empty trips without load (Vijayaraghavan, 2007).

1.3.2 Ports

The long coastline of India is dotted with 11 major ports (Map 1.1) that are managed by the Port Trust of India under Central Government jurisdiction. There are also 139

minor operable ports under the jurisdiction of the respective State Governments. The major ports are located at Calcutta/Haldia, Mumbai, Jawaharlal Nehru Port at Nava Shiva, Madras, Cochin, Vishakhapatnam, Kandla, Mormugao, Paradip, New Mangalore and Tuticorin. The major ports handle 90 percent of the all-India port throughput, and thus bear the brunt of sea-borne trade. Dry and liquid bulk make up about 85 percent of the port traffic in volume with general cargo, including the containerized cargo, constituting the remaining traffic (Indiabudget, 2001).

Map 1.1: Map of Indian Ports

Source : http://www.pearlshipindia.com/images/img_india_map_s.gif

1.3.2.A The Indian ports are characterized by the following:

1. Ships have to wait long in the channel for berthing, and productivity in loading and unloading is low. The national average turn-around time of vessels for liquid, dry bulk, and general cargo is estimated at 3.4 days, 9 days and 3.6 days respectively (Vijayaraghavan, 2007).
2. It is labor intensive and mechanization process is non-existent or slow.
3. Night navigation is not available, and ships have to wait for daylight.
4. Equipment used is outdated and obsolete.
5. Restrictions in navigation channels do not allow bigger vessels to be berthed.
6. Handling vessels and feeder vessels in container berths is time consuming.
7. The road links to ports are insufficient and badly maintained.
8. Lack of coordination between ports and the custom authorities delays quicker dispensation of documentation and goods.

1.3.2.B Railways

The Indian Railways consists of extensive network spread over 62,915 km covering 7068 stations and is considered as the fifth largest in the world after USA (2,24,000 km),Russia (1,54,000 km),China (78,000 km),Canada (72,961 km) (The Times of India, 2005). Of late, Indian Railways has started to look much more efficient and revenue earning is also increasing.

With a vast geographical area and favorable location, India has the potential to network with CIS countries, especially through Iran to provide necessary infrastructure. This, facilitated by the availability of vast network of railways, roads, sea and airports that needs to be upgraded technically and managerially. As it is the linkage between organization's customer and the sources of its products or services that the organization provide to the market place. This particular design is not only important as it involves consideration of distribution cost which forms a significant percentage of total marketing costs.

1.3.3 India Vis-à-Vis the World:

India Inc. continues to grow strong in terms of expanding businesses across the world, but when it comes to cross-border transportation of goods, the country ranks below a number of other major economies such as the US, UK and China. India holds the 39th position on the Logistics Performance Index (LPI) that is based on the ability to transport goods reliably and in a cost-effective manner to and from a country. The list of 150 countries has been topped by Singapore, followed by the Netherlands (2nd), Germany (3rd), Sweden (4th) and Austria (5th). Others in top-ten include Japan, Switzerland, Hong Kong, UK and Canada (The Economic Times, 2007).

The Logistics Performance Index is based on a survey of operators on the ground worldwide (global freight forwarders and express carriers), providing feedback on the logistics friendliness of the countries in which they operate and those with which they trade. They combine in-depth knowledge of the countries in which they operate with informed perceptions of other countries with which they trade, and experience of global logistics environment. Feedback from operators is supplemented with objective data on the performance of key components of the logistics chain in the home country, data collected for 100 countries.

The LPI consists therefore of both perception and objective measures and helps build profiles of logistics friendliness for these countries. It measures performance along the logistics supply chain within a country and has three parts:

1. Perceptions of the logistics environment of trading partner countries
    a. Efficiency and effectiveness of Customs and other border procedures,
    b. Quality of Transport and IT infrastructure for logistics;
    c. Ease and affordability of arranging shipments;
    d. Competence in the local logistics industry (e.g., transport operators, customs brokers);
    e. Ability to track and trace shipments;
    f. Domestic logistics costs (e.g., local transportation, terminal handling, warehousing); and
    g. Timeliness of shipments in reaching destination.

2. Information on the logistics environment in the home country of operation
    a. Direct freight costs
    b. Quality of transport and IT Infrastructure,
    c. Competence in the delivery of input services logistics operators need,
    d. Performance of the clearance process of exports and imports,
    e. Constraints affecting logistics performance,
    f. Trends
3. *Real time-cost performance data for country of operation*
    a. Number of border agencies,
    b. Customs performance indicators (time release, inspection data, possibility of review for imports),
    c. Percentage of damaged shipments,
    d. Lead times to export and import (based on best 10%, median 50% and worst 90% of shipments).

India has been ranked below the US (14th), China (30th), Finland (15th), Australia (17th, France (18th), New Zealand (19th), Italy (22nd) and South Africa (24th) (The Economic Times, 2007). However, the country has found a place higher than as many as 111 nations including Saudi Arabia, Poland, Qatar, Cyprus, Pakistan, Bangladesh and Sri Lanka. India is the second highest ranked nation among the BRIC countries after China. Brazil and Russia have been positioned at 61st and 99th place respectively.

Further, India is ranked 46th in terms of logistic costs. These costs are higher in the country compared to China (43rd) but less than Sri Lanka (47th) and Bangladesh (48th).

In terms of timeliness, India is ranked at the 47th place while China is at the 36th position. On a scale of one to five, India has been given an overall score of 3.07 points on, Logistics Performance Index (LPI) reflecting parameters like customs, infrastructure, international shipments, logistics competence, tracking and tracing of shipments, domestic logistics costs and timeliness (Table1.1).

The performance of customs, trade-related infrastructure, inland transit, logistics services, information systems, and port efficiency are all critical to whether

countries can trade goods and services on time and at low cost. And this trade competitiveness is central to whether countries can harness globalization's new opportunities for development. The LPI uses a broader and comprehensive approach to supply-chain performance to measure some of the critical factors of trade logistics performance, including the quality of infrastructure and logistics services, the security of property from theft and looting, the transparency of government procedures, macroeconomic conditions, and the underlying strength of institutions.

1.3.3.A India and CIS in terms of LPI

As mentioned above the Logistics Performance Index (LPI) and its indicators provide the first in-depth cross-country assessment of the logistics gap among countries. A comparison between India and major CIS countries is offered in this section on the basis of LPI.

Table 1.1: Logistic Performance Index table of India and major CIS countries

Country	LPI	Customs	Infrastructure	International shipments	Logistics competence	Tracking & tracing	Domestic logistics costs	Timeliness
India	3.07	2.69	2.9	3.08	3.27	3.03	3.08	3.47
Ukraine	2.55	2.22	2.35	2.53	2.41	2.53	3.25	3.31
Belarus	2.53	2.67	2.63	2.13	2.13	2.71	3.13	3
Russian Federation	2.37	1.94	2.23	2.48	2.46	2.17	2.4	2.94
Kyrgyz Republic	2.35	2.2	2.06	2.35	2.35	2.38	2.8	2.76
Moldova	2.31	2.14	1.94	2.36	2.21	2.5	2.92	2.73
Uzbekistan	2.16	1.94	2	2.07	2.15	2.08	2.91	2.73
Kazakhstan	2.12	1.91	1.86	2.1	2.05	2.19	2.81	2.65
Armenia	2.14	2.1	1.78	2	2.11	2.22	3.43	2.63
Azerbaijan	2.29	2.23	2	2.5	2	2.38	2.88	2.63
Tajikistan	1.93	1.91	2	2	1.9	1.67	2.33	2.11

Source: World Bank, Logistics Performance Index study (2008)

The above table (1.1) shows the comparison of India and major CIS region with respect to various trade related indicators. The indicators summarize the performance of countries in seven areas that capture the current logistics environment. They range from traditional areas such as customs procedures, logistics costs (such as freight rates), and infrastructure quality to new areas like the

ability to track and trace shipments, timeliness in reaching a destination, and the competence of the domestic logistics industry. The LPI and its indicators are given on a numerical scale, from 1 (worst) to 5 (best). This scale can also be used to interpret performance outcomes measures. For example, the analysis based on the additional country information gathered in the survey, indicates that, on average, having an LPI lower by one point (say, 2.5 rather than 3.5) implies six additional days for getting imports from the port to a firm's warehouse and three additional days for exports. It also implies that a shipment is five times more likely to be subject to a physical inspection at entry.

The LPI of India is 3.07 which are better than any of the CIS countries. Best among CIS countries is Ukraine (2.55) closely followed by Belarus (2.53), Russia (2.37) and Kyrgyz Republic (2.35). India is ranked better than any of the CIS countries on the parameters like Customs, Infrastructure, International shipments, logistics competence and timeliness. On the other hand, Armenia (3.43), Ukraine (3.25) and Belarus (3.13) score better than India (3.08) in terms of domestic logistics cost.

Details of the ranking procedures and results are given in Appendix 2.

References

Indiabudget. (2001). Retrieved June 22, 2006, from http://indiabudget.nic.in/es98-99/chap97.pdf

Infoscaler. (2001). *Processes and components of SCM.* Infoscaler Technologies. Retrieved February 11, 2006, from www.infoscaler.com/pcscm.htm

Kilgore, M., Joseph, A., & Metersky,J. (2008, February 1). *The logistic challenges of doing business in India.* Logistics Management. Retrieved February 26, 2008, from http://www.logisticsmgmt.com/article/CA6530458.html

MacDonald, A. (2006). *Managing a global vs. domestic supply chain.* World Trade Magazine. Retrieved May 3, 2007, from http://www.worldtrademag.com/Articles/Feature_Article/5be8b3d2ca44c010VgnVCM100000f932a8c0

Manoj, P. (2008). *PE firms line up $2 bn for Maritime logistics.* Wall Street Journal. Retrieved July 23, 2008, from http://www.livemint.com/2008/06/10235739/2008/06/26232010/PE-firms-line-up-2-bn-for-mar.html?d=2

Ojha, P. (2007). *Indian Logistics Industry is a $125 bn Goldmine.* TNN Tachomaster. Retrieved October 16, 2008, from http://www.tnn.co.uk/WorldwideNews/plonearticle.2007-02-21.6959895165

Outlookarena. (2009). *Logistics sector: A look at road freight transport I.* Views on News. Retrieved May 28, 2009, from www.equitymaster.com/detail.asp?date=5/22/09&story=3

R. Moreau, personal communication, July 2, 2008.

Sme-expo. (2009). *Transportation Infrastructure 2009.* Retrieved March 6, 2009, from http://www.sme-expo.com/Traninfra09/index.htm

TCIL. (2008). *Indian Road Freight Industry.* Retrieved May 28,2009, from www.TCIL.com/rt.asp

The Economic Times. (2007, November 11). *World Bank ranks India at 39th in global trade logistics.* New Delhi. Retrieved December 24, 2007, from http://economictimes.indiatimes.com/articleshow/2532844.cms

The Times of India. (2005, January 16). *Which country has the largest railway network in the World?* New Delhi. Retrieved March 12, 2007, from http://timesofindia.indiatimes.com/articleshow/991607.cms

Vijayaraghavan, T.A.S. (2007). *Impact of Transportation Infrastructure on Logistics in India.* Business Logistics & SCM. Retrieved October 2, 2008, from http://logisticsmanagementandsupplychainmanagement.wordpress.com/2007/05/23/impact-of-transportation-intrastructure-on-logistics-in-india/

Vijayaraghavan. (2001). *Impact of Transportation Infrastructure on Logistics in India.* Logistics Spectrum. Retrieved July 26, 2007, from http://findarticles.com/p/articles/mi_qa3766/is_200101/ai_n8952924/

CHAPTER - 2

2 CIS COUNTRIES AND THEIR TRADE WITH INDIA

The Commonwealth of Independent States (CIS) was established on December 8, 1991, by the Minsk Agreement signed by the Heads of State of the Republic of Belarus, the Russian Federation and the Republic of Ukraine. The formal clause stating the dissolution of Soviet Union was included in the subsequent treaty signed in Almaty, Kazakhstan, by all the former Soviet Republics, except the Baltic States and Georgia. In December 1993, both Georgia and Azerbaijan joined the CIS. The CIS thus includes all the former Soviet Republics except the Baltic States. At present, the CIS unites Armenia, Azerbaijan, Belarus, Georgia, Kazakhstan, Kyrgyzstan, Moldova, Russia, Tajikistan, Turkmenistan, Ukraine and Uzbekistan. The CIS sought to fill the institutional vacuum resulting from the disintegration of the Soviet Union and to ensure continued co-operation in trade and military policy and recognition of borders.

The main organ of the CIS is the Council of the Heads of State, the supreme body of the organization. The Council coordinates the operation of the executive authorities of the states in economic, social and other spheres. In September 1993, the Heads of the CIS States signed an Agreement on the creation of Economic Union with the purpose of forming common economic space based on free movement of goods, services, labour force and capital. The agreement aimed at elaborating coordinated monetary, tax, price, customs and economic policy; bringing together methods of regulating economic activity and creating favorable conditions for the development of direct production relations.

2.1 Structure of CIS Countries (CISSTAT, 2006)

Council of the Heads of States: This is the supreme body of the CIS that discusses and solves any principle questions of the Commonwealth connected with the common interests of the participant states.

Council of the Heads of Governments: This Council coordinates co-operation of the executive authorities of the member states in economic, social and other spheres of their common interests. Inter-Parliamentary Assembly: The Assembly was

established in March 1995 by the leaders of Supreme Soviets (parliaments) of the Commonwealth countries as a consultative institution to discuss problems of parliamentary cooperation and develop proposals by the parliaments of the CIS states.

Economic Court: Economic Court functions with the aim of ensuring the meeting of economic commitments in the framework of the CIS. Its terms of reference include settlement of interstate economic controversy arising in meeting economic commitments envisaged by agreements and decisions of the Council of the Heads of States and the Council of the Heads of Governments of the CIS.

Council of Foreign Ministers: It is the main executive body that ensures co-operation in the field of foreign policy activities of the member states of the CIS on matters of mutual interest, adopting decisions during the period between the meetings of the Council of the Heads of States, the Council of the Heads of Governments and by their orders.

Council of Defense Ministers: It is a body of the Council of the Heads of States responsible for military policy of the member states of the CIS.

Economic Council: The Economic Council is the main executive body, which ensures implementation of the decisions of the Council of the Heads of States and the Council of the Heads of Governments of the CIS on realisation of the Agreement for creation of free trade zone as well as on other matters of socioeconomic co-operation. The Economic Council consists of the Deputy Heads of Governments of member states of the CIS.

Executive Committee: The Executive Committee unites permanently functioning executive, administrative and coordinating bodies of the CIS, and organizes the activities of the Council of the Heads of States, Council of the Heads of Governments, Council of Foreign Ministers of member states of the CIS, Economic Council and other bodies of the Commonwealth, among others.

Interstate Bank: The most important function of the Interstate Bank is organization and implementation of multilateral interstate settlements between central (national)

banks in relation to trade and other transactions, as well as co-ordination of monetary policy of the member states. The Interstate Bank was established in accordance with the decision of the Heads of Governments in December 1991 for coordinating activities of statistical organisations of the CIS countries, developing and implementing a unified statistical methodology on the basis of mutual consultations, securing comparability and continuity of statistical elaboration, facilitating wide-scale information exchange in the framework of the CIS, organizing seminars and employing other forms of rendering assistance to national statistical services.

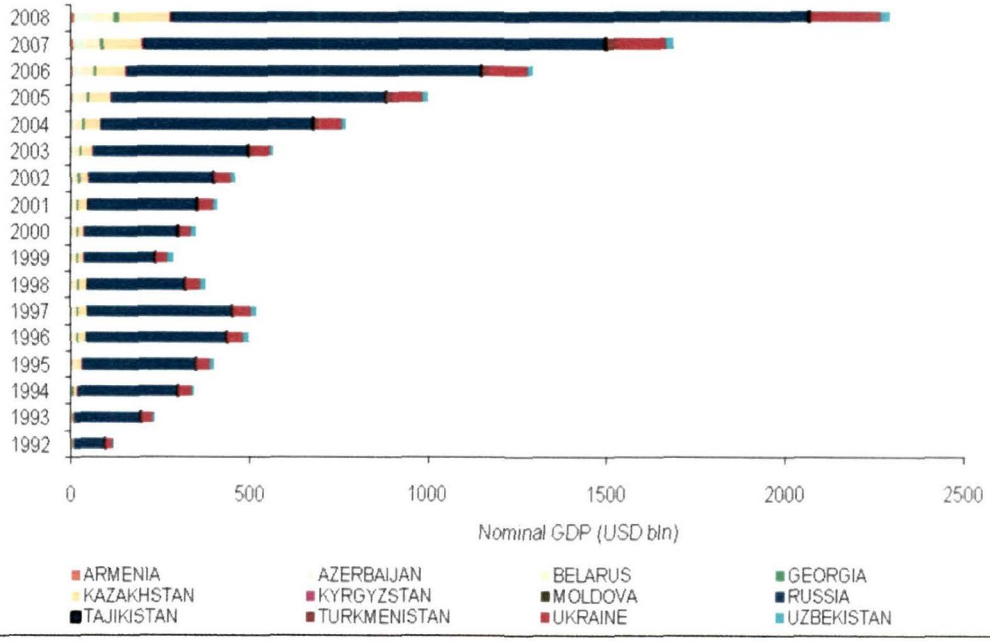
Map 2.1 : The CIS Countries

Source : www.reisenett.no/map_collection/commonwealth.html

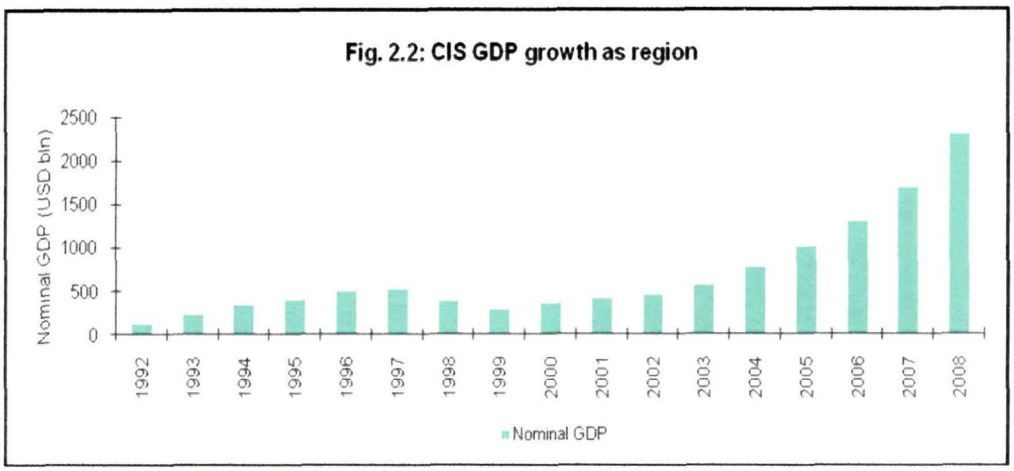
2.2 Economic growth of CIS Countries

CIS region has registered robust economic growth in recent years. Real GDP growth for the region as a whole strengthened from 6.7% in 2005 to 7.5% in 2006 to 8.4% in 2007. Strong growth momentum in the largest economies in the region, such as Russia, Ukraine, Belarus, Kazakhstan, has supported economic activity in other member countries. During 2005, growth momentum was sustained, although at a lower level of 6.7%. During 2006, reflecting high commodity prices and strong export growth, economic activity has picked up, supported by increased domestic demand in major countries such as Russia and Kazakhstan. Reflecting increased earnings from oil and commodity exports, the current account surplus of the CIS region has risen from 6.3% of GDP in 2003 to 8.1% in 2004 and further to 8.8% of GDP in 2005. For net energy exports such as Azerbaijan, Kazakhstan, Russia, Turkmenistan and Uzbekistan, the current account surplus was a high as 8.7% of GDP in 2004, which increased further to 10.0% of GDP in 2005 (Fig. 2.1 & 2.2).

Fig. 2.1: Country-wise GDP growth of CIS region

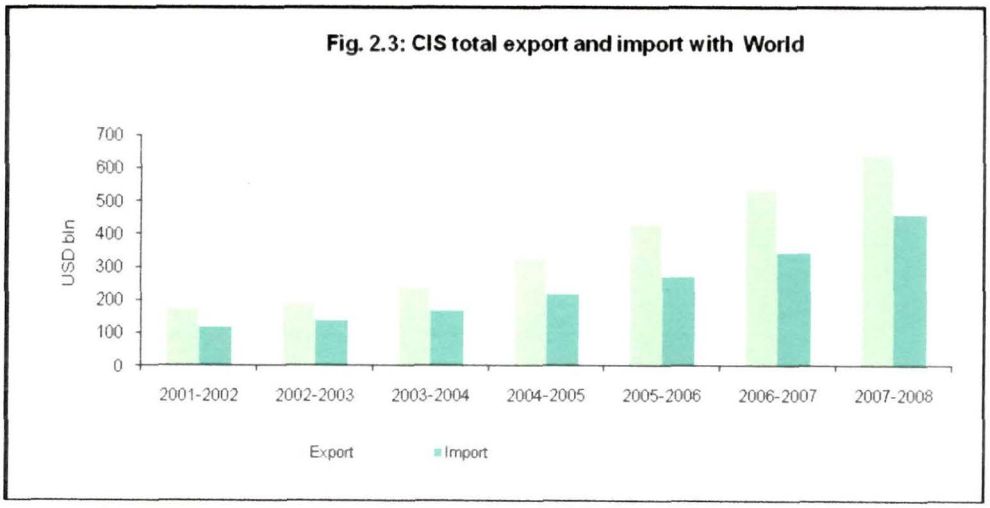


Source: IMF (2008)



Source: IMF (2008)

Total exports of the CIS region have risen from US$ 196.1bn in 2003 to US$ 267.9bn in 2004, and further to US$ 344.7bn in 2005 and then to 426bn in 2006 and 508bn in 2007 (Fig.2.3) . Total imports have also risen from US$ 133.5bn in 2003 to US$ 172.8bn in 2004, and during 2005 stood at US$ 216.4bn, in 2006 at 281bn and in 2007 at 377bn (Fig.2.3). Details are given in Appendix 3.

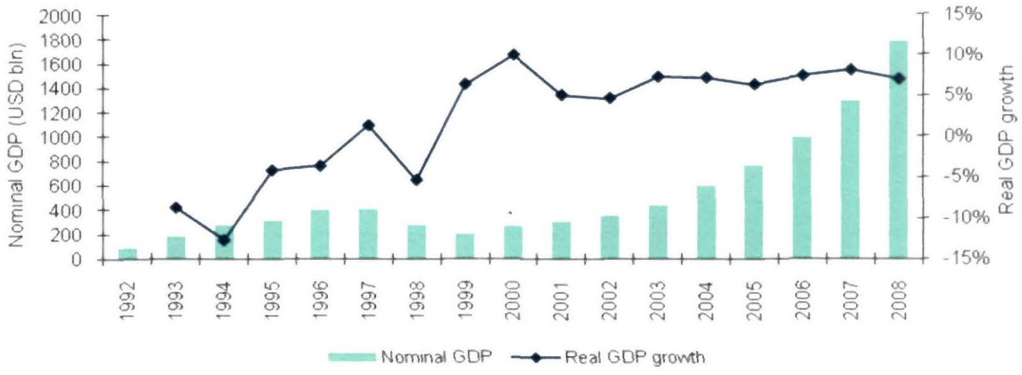


Source: IMF (2008)

2.2.1 RUSSIA

Among the largest economies, economic activity in Russia slowed down with a real GDP growth of 6.4% in 2005, as compared to 7.2% in 2004, driven by a combination of lower output growth in the energy sector, economic uncertainties that undermined investments and an increasingly negative contribution from the external sector. But it bounced back again with the real GDP growth rate of 7.4% in 2006, 8.1% in 2007 and 7.0% in 2008 (Fig.2.4).

Fig. 2.4: Russia's GDP growth

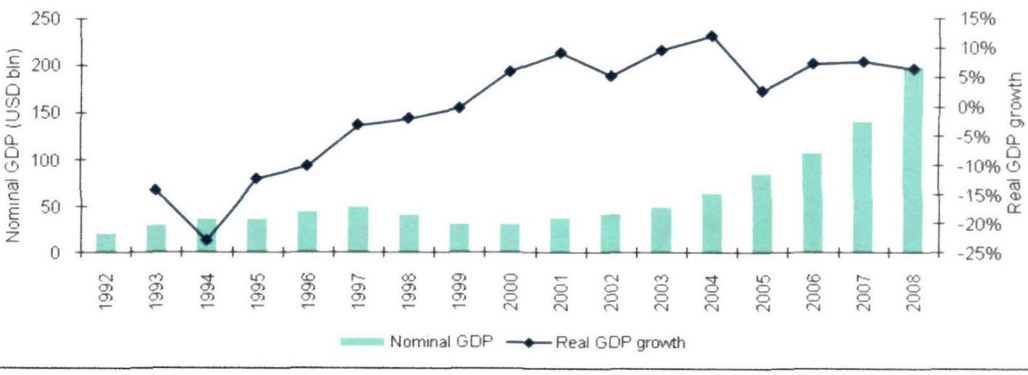


Source: IMF (2008)

2.2.2 UKRAINE

In Ukraine, slowdown in export demand combined with weak growth in investment led to a sharp deceleration in real GDP growth to 2.6% in 2005, down from a growth of 12.1% in 2004. But recently it showed pick up in export, with the real GDP growth rate of 7.3% in 2006, 7.6% in 2007 and 6.4% in 2008 (Fig.2.5).

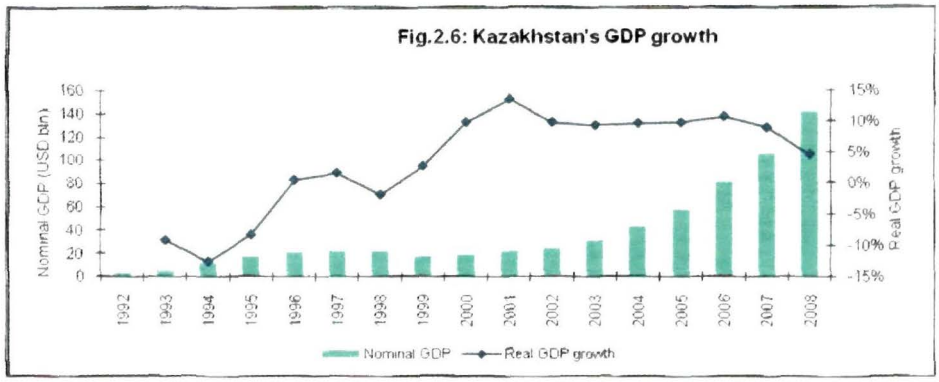
Fig.2.5: Ukraine's GDP growth



Source: IMF (2008)

2.2.3 KAZAKHSTAN

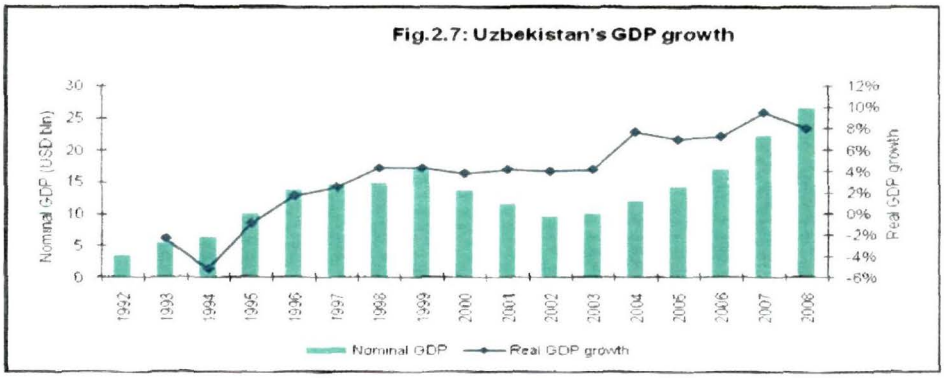
In Kazakhstan, the boom in the oil and gas sector has driven economic growth in recent years. Real GDP growth was sustained at a robust 9.7% in 2005, as compared to 9.6% in 2004. Supported by industrial output growth of 10.0% and construction growth of 11.2%, transport and communication grew by 12.2%, while trade and other services expanded by 10.4%. As the focus Kazakhstan now is more on trade this reflected in its impressive real GDP growth rate of 8.9% in 2007 though it has come down to 4.5% in 2008 (Fig.2.6).



Source: IMF (2008)

2.2.4 UZBEKISTAN

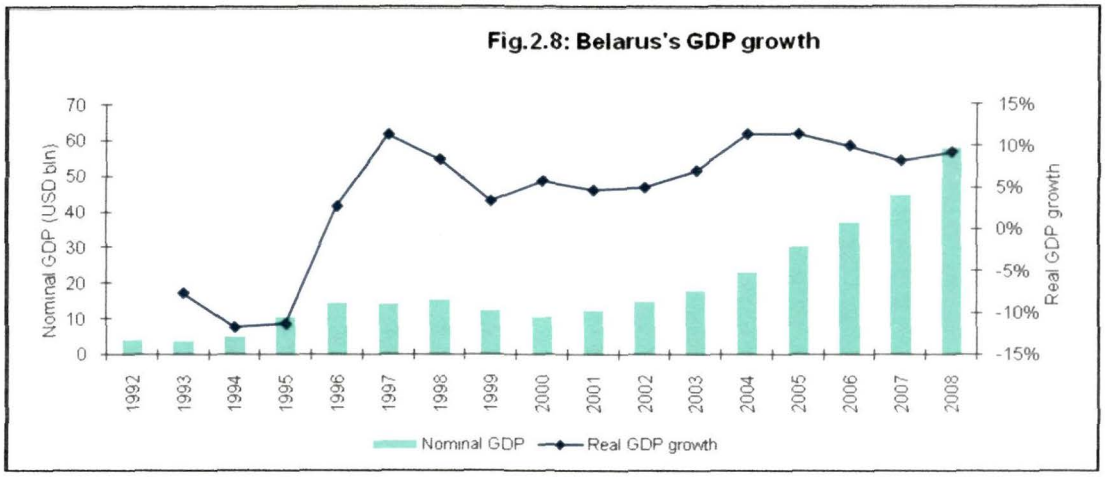
In case of Uzbekistan, Real GDP growth rate increased from 4.2% in 2003 to 7.7% in 2004. This can be attributed to a growth in the industrial sector, and an expansion in the agricultural sector. In 2005, real GDP growth was maintained at 7.0%. Real GDP growth then further rose to the higher levels to 9.5% in 2007 and 8.0% in 2008 (Fig.2.7), which was primarily supported by new investments in oil & gas sector and gold mining.



Source: IMF (2008)

2.2.5 BELARUS

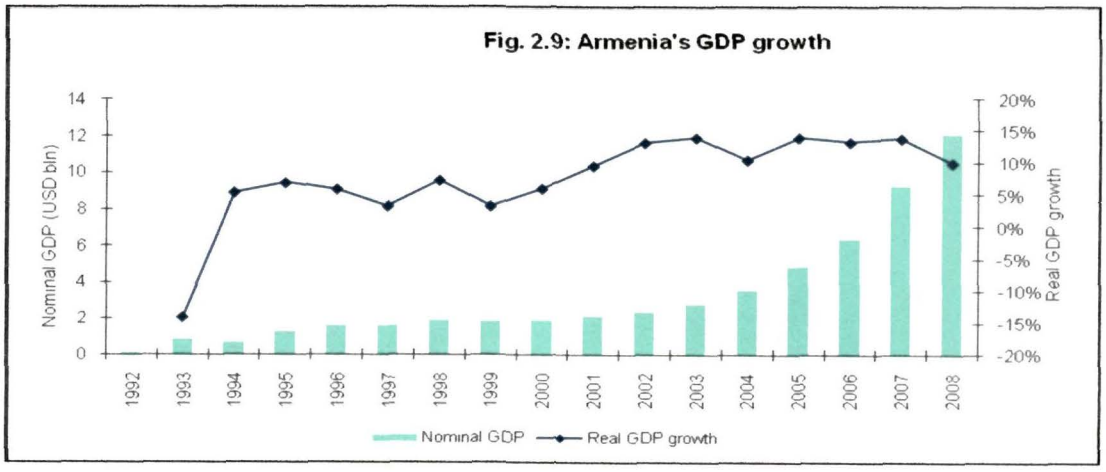
In Belarus, real GDP growth stood at a robust 11.4% in 2005, reflecting strong Russian demand for Belarusian manufactured outputs. Domestic demand also remains an important driver of growth in Belarus, aided by government prioritizing ambitious wage targets. But under the global slowdown the real GDP growth rate plummeted to 8.2% in 2007 (Fig.2.8).



Source: IMF (2008)

2.2.6 ARMENIA

In Armenia, real GDP reached a robust growth of 13.9% during 2005, as compared to 10.1% in 2004. Investment by Russian and several western companies into the mining and non-ferrous metallurgy sectors resulted in a pick-up in the growth rate in industry. The same factors maintained the GDP growth rate at 13.8% in 2007 (Fig.2.9) despite global slowdown.

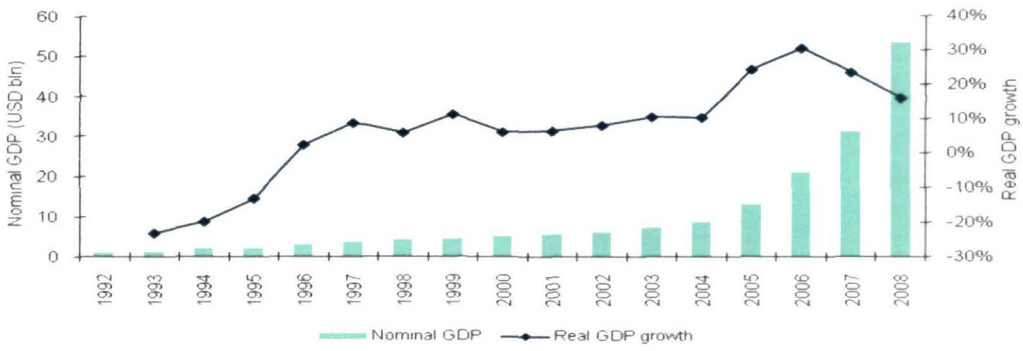


Source: IMF (2008)

2.2.7 AZERBAIJAN

In case of Azerbaijan, after the sharp decline in output in the early nineties, rapid growth commenced in 1997, mainly owing to large-scale FDI into the oil and gas sector. Real GDP growth since 2000 has averaged over 10% per year, and stood at a robust 24.0% in 2005. The country reflected the same momentum in 2007 and GDP stood at 23.4% growth rate (Fig 2.10).

Fig.2.10: Azerbaijan's GDP growth

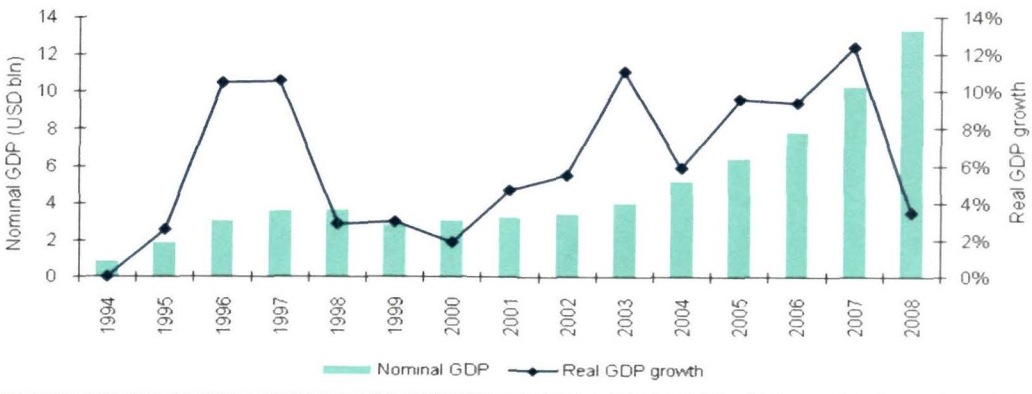


Source: IMF (2008)

2.2.8 GEORGIA

Economic growth has been rapid in Georgia in the last few years, with real GDP growing by 5.9% in 2004 and increased to 9.3% in 2005. Strong growth in construction due to building of two oil pipelines, as also robust growth in the extraction and manufacturing sector have boosted economic activity. These factors contributed to the real GDP growth rate at 12.4% in 2007 (Fig.2.11).

Fig. 2.11: Georgia's GDP growth

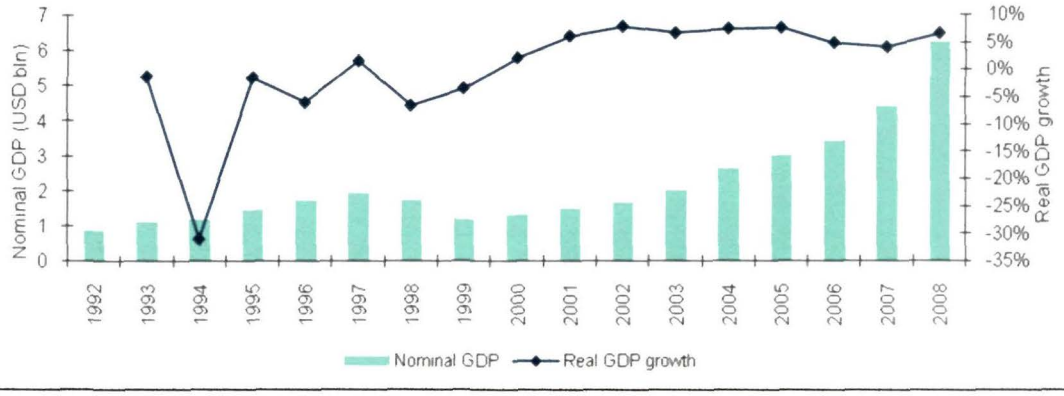


Source: IMF (2008)

2.2.9 MOLDOVA

Moldova's real GDP growth in 2005 stood at 7.1%, as compared to 7.4% in the previous year, aided by a significantly improved agricultural performance and strong export performance due to Russia's robust economic performance, which plays a key role in Moldavian exports. But the real GDP growth rate plummeted to 4% (Fig.2.12) which may be attributed to global economic slowdown.

Fig. 2.12: Moldova's GDP growth

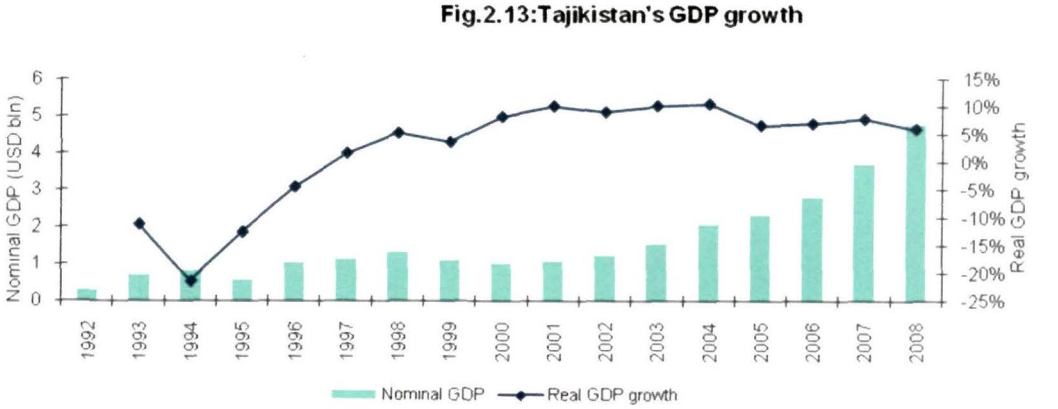


Source: IMF (2008)

2.2.10 TAJIKISTAN

The economy of Tajikistan is diversifying away from dependence on aluminum and cotton. The real GDP growth slowed down to 6.7% in 2005 from 10.6% in previous year. However, reflecting strong growth in retail trade and industrial output, real GDP growth strengthened to 7.8% in 2007 (Fig.2.13).

Fig.2.13:Tajikistan's GDP growth

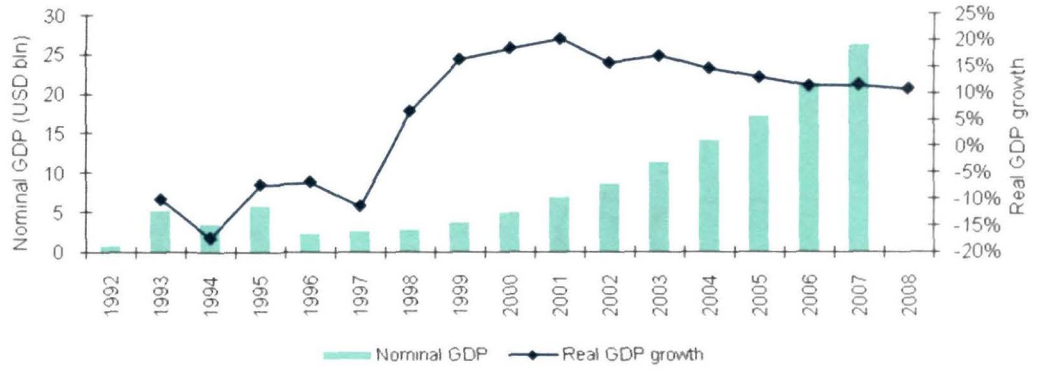


Source: IMF (2008)

2.2.11 TURKMENISTAN

In Turkmenistan, real GDP registered a lower growth of 9.6% in 2005 as compared to 14.7% in 2004 due to strong performance of the hydrocarbons and cotton sectors, which are the main contributors to overall output. The same factor contributed to the lower growth in 2007 at 11.6% (Fig.2.14).

Fig.2.14:Turkmenistan's GDP growth

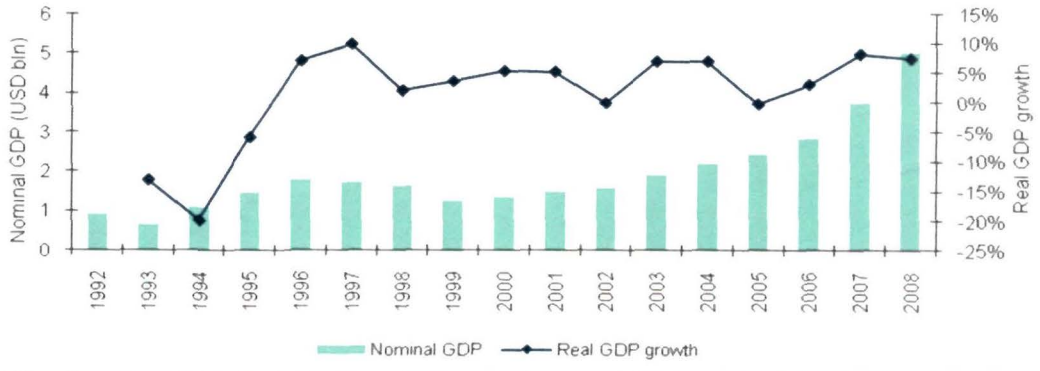


Source: IMF (2008)

2.2.12 KYRGYZSTAN

In Kyrgyz Republic, real GDP growth after contracting sharply during 2005 rose to the real GDP growth rate of 8.2% in 2008 (Fig.2.15). The economic recovery was primarily due to increased output from the Kumtor gold mine, which is the single most important constituent of Kyrgyz Republic's economy accounting for around 40% of industrial output and almost half of the country's export revenue.

Fig.2.15: Kyrgyzstan's GDP growth



Source: IMF (2008)

2.3 India's trade relations with USSR: Before break-up

India and USSR hold both economic and political significance for each other. Indo-Soviet trade expanded from virtually nothing in the early 1950s to be worth USD 2.25 billion in 1986/87. It grew rapidly by around 25% a year. Indian exports to the Soviet Union accounted for about 15% of its total exports and the reverse trade accounts for approximately 5.5% of Indian imports in 1986-87.

A unique feature of the Indo-Soviet relationship was the Rupee trade agreement between the two countries. Under the agreement, all Indian purchases of Soviet products or weapons are made in Indian Rupees. This means that India never had to part with hard earned foreign reserves to buy Soviet exports, including oil and weapons. In return, the Soviet Union used its accumulated Rupees to buy Indian products, including such consumer items as razor blades, toothpaste, cashew nuts, fruit juice etc. The Soviet Union was also the main buyer of Indian tea.

When oil prices were high, trade between the Soviet Union and India remained fairly balanced. But as oil prices dropped in 1980s and India's own oil production increased, the balance shifted dramatically in India's favour. 1986, the Soviet trade deficit with India was about USD700 million (Sachdeva, 2004).

A distinguishing feature of the indo-Soviet trade was its mutually beneficial character, since it represents an example of skilful employment of advantage of the international division of labour by the partners. The Soviet Union supplied to India the machinery and equipment, industrial raw materials and finished products necessary for the development of her economy. In its turn, India exported to USSR a wide range of goods which were not produced in the USSR owing to climatic conditions. The USSR's share in the total volume of Indian export was constantly growing. The export of Indian goods to the USSR had special significance for India, since under the conditions of unstable development of the world capitalist economy; there were protectionist restrictions and barriers on the way of goods from the developing countries. Indian goods underwent an ever-increasing competition on

the world market and their share in the world trade was on the decrease. The technical co-operation which had an important place in the whole complex of traditional relation of friendship between the two-countries was pregnant with many prospective effects on the further technological up-gradation of India's heavy engineering and thereby ensuring her export capabilities. This exemplifies the fact of a developing nation being profited by its trading relationship with a developed nation and serving as a replica of good business traditions. The emergence of India and the Soviet Union as key trading partners of each other is a major landmark in mature co-operation and an illustrious example of North-South co-operation in their common quest for better international understanding and peace. The experience of implementing the long-term (five-year) trade agreements had convincingly proved the mutual benefit of Indo-Soviet trade ties. Their planned foundation having and perspectives for trade development had become an important segment of India's foreign trade. However, a number of issues were raised in the 1980s questioning the relevance of many prevailing institutional and organizational aspects of trade which need to be reviewed and examined in the best interest of promoting India's trade with the USSR in the years to come (Rai, 1991).

The total value of Indo-Soviet Trade which was barely Rs. 0.22 crore in 1950-51 had a quantum jump to Rs. 3,457.97 crore in 1984. This spectacular growth in trade in a span of three and half decades is supposed to provide an excellent example of fruitful trade and economic co-operation between the two countries with different social systems. Under the self-balancing "Rupee payments" mechanism the trade between the two countries that grew rapidly after 1960 has reached now a qualitative, though not a quantitative plateau. Added to this, there was an appreciable amount of economic assistance extended to India by the U.S.S.R. that gave further stimulus to growth in trade between the two countries (Ghosh, 1992).

Many doubts have been raised regarding the overall benefits of Indo-Soviet trade to India. The doubts centre round questions like whether India is losing valuable free foreign exchange as a result of its trade diversion from the convertible currency

areas, whether India is trading at a loss in terms of prices, whether India is getting products of comparable quality through its imports from the U.S.S.R. and Eastern Europe. The broad judgment, after considering all factors, has been that Indo-Soviet bilateral trade has, on the whole, benefited India during the period under study (Ghosh, 1992).

The decade of 1990's was a very difficult period for Russian business. It was not only that Russia was transforming its economic system, but this transformation was also taking place in a period when Russian economy faced one crisis after another. As a result, the Russian economy was already reduced to half of what it was in 1990, when another financial and economic crisis hit the economy in August 1998. In contrast, the Indian economy in the 1990's grew fast, compared to any other time in the recent past. The average annual growth rate between 1990 and 2000 was minus 4.8 per cent for Russia and about 6 per cent for India.

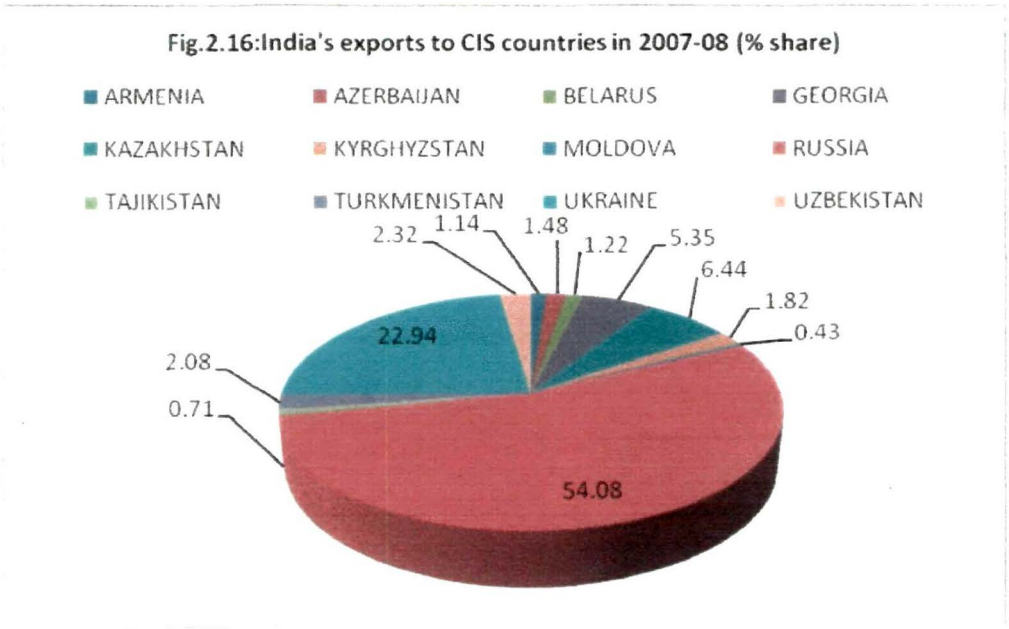
The list of major export and import items from /to India to CIS are given in Appendix 4.

2.4 India's trade relations with the CIS region

2.4.1 Major trading partners of India in the CIS region

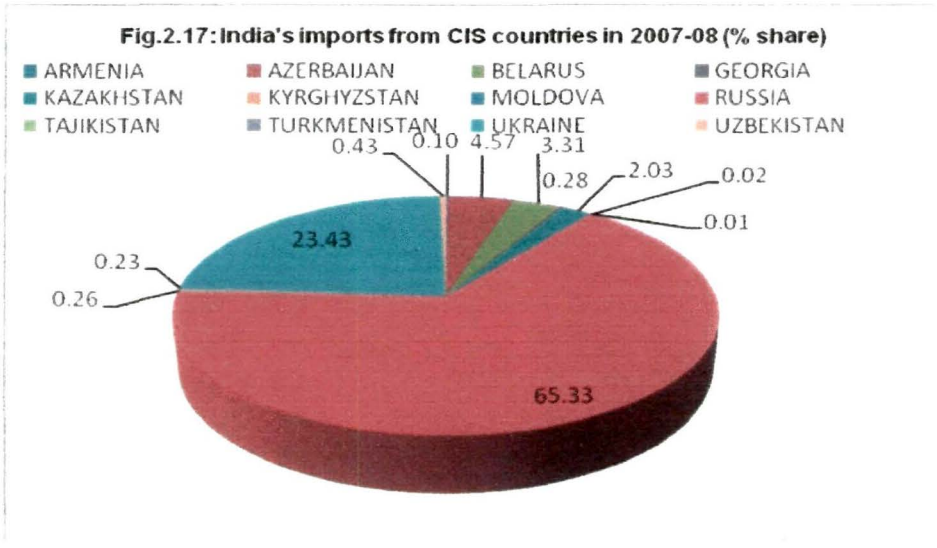
A significant portion of India's exports to the CIS region is to Russia. India's exports to Russia accounted for 58.77 % of India's total exports to the CIS region in 2005-06 (Appendix 3), but declined to 54.08% in 2007-08 (Fig.2.16). Ukraine is the second largest export destination in the region, with a share of 20.70% in 2005-06 (Appendix 3) which increased to 22.94% in 2007-08 (Fig.2.16).

The relative share of Russia, Ukraine and other CIS countries in India's exports during 2007-08 is shown in Fig.2.16.



Source: DGCIS, MOCI (2008)

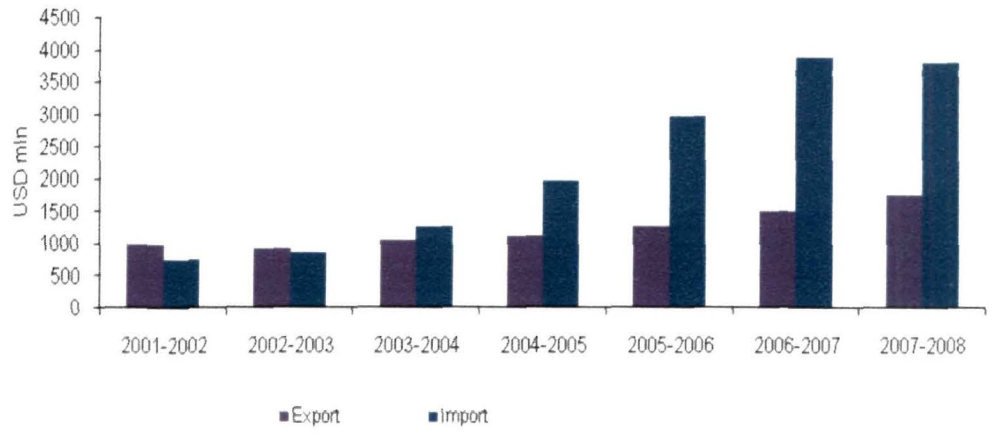
Like exports, a significant portion of India's imports from CIS region is from Russia. India's imports from Russia accounted for 65.33% of India's total imports from the CIS region in 2007-08. Ukraine is the second largest import destination in the region, with a share of 23.43% in 2007-08, followed by Azerbaijan (4.57%), Belarus (3.31%), Kazakhstan (2.03%), and Uzbekistan (0.43%) (Fig.2.17)



Source: DGCIS, MOCI (2008)

India's total exports to the CIS region, after contracting from US$ 972.4mn in 2001-02 to US$ 921.7mn in 2002-03, primarily due to decline in exports to Russia which is India's largest trading partner in the CIS region, thereafter picked up to reach US$ 1.7bn in 2007-08 (Fig.2.18). India's imports from the CIS region, on the other hand, have registered a continued rise from US$ 736.7mn in 2001-02 to US$ 3.7bn in 2007- 08 (Fig.2.18). Reflecting these trends, India's total trade (exports plus imports) with the CIS region has increased more than two-fold from US$ 1.7 bn in 2001-02 to US$ 5.5bn in 2007-08. Further, India's trade balance with the CIS region, which registered a surplus till 2002-03, moved into a deficit in 2003-04 and amounted to US$ 2.04bn in 2007-08, due to the faster rise in imports as compared to the rise in exports to the region. Details are given in Appendix 3.

Fig. 2.18:Total export and import between India and CIS

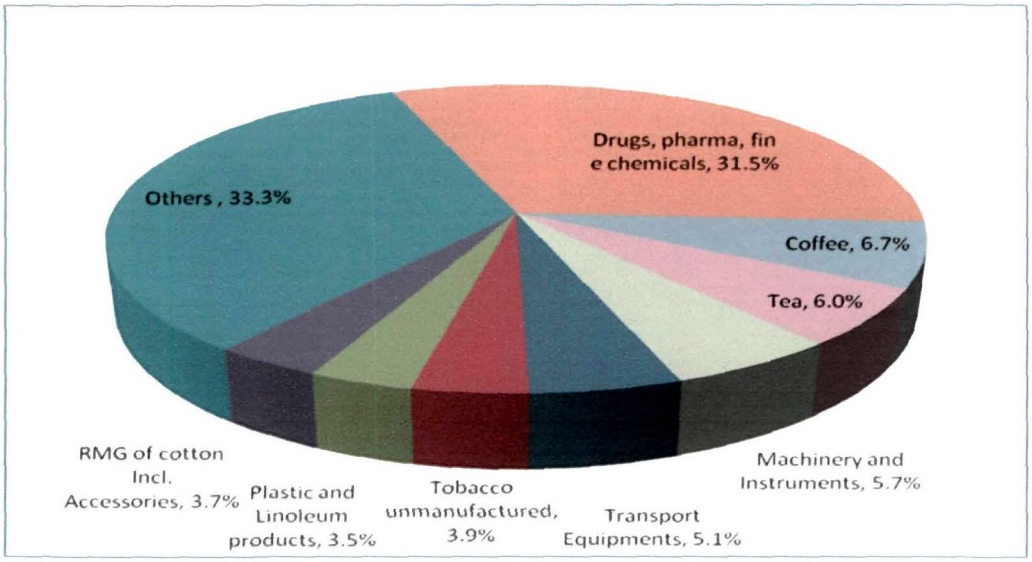


Source: DGCIS, MOCI(2008)

2.4.2 Export items

Drugs, pharmaceuticals & fine chemicals are the largest export items, accounting for 31.8% of India's total exports to the CIS in 2005-06, followed by coffee, and machinery & instruments (Fig.2.19). Other important exports to the CIS region include transport equipments, unmanufactured tobacco, plastic & linoleum products, and ready-mades of cotton and accessories.

Fig.2.19: Composition of India's export to CIS (% share).



Source: DGCIS, MOCI (2007)

2.4.3 Import items

As regards imports, iron and steel have emerged as the largest import items from the CIS region, with a share of 35.6% of total imports in 2005-06, followed by manufactured fertilizers, non-ferrous metals, coal, silver, and newsprint. Imports from the CIS region, besides Russia and Ukraine, other countries such as Kazakhstan, Uzbekistan and Georgia have also emerged as important trading partners.

2.5 India's country-wise trade with CIS: After break-up

2.5.1 RUSSIA

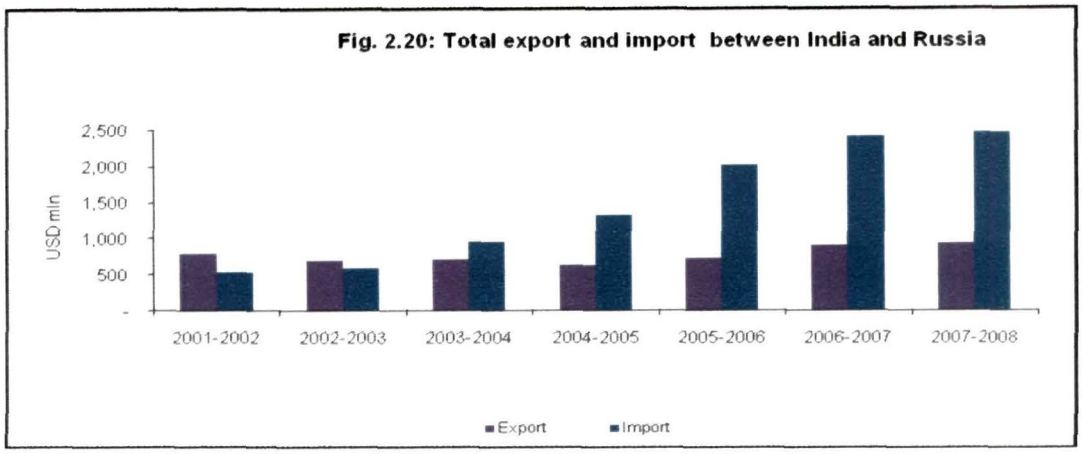
India's exports to Russia declined from US$ 798.2mn in 2001-02 to US$ 631.3mn in 2004- 05, before rising to US$ 733.2mn in 2005-06 and further to US$ 902.2mn in 2006-07 and US$ 940.2mn in 2007-08 (Table 2.1). The increase in India's exports to Russia during 2006-07 and 2007-08 is mainly due to the rise in exports of drugs, pharmaceutical & fine chemicals, coffee, unmanufactured tobacco, transport equipments, cotton yarn, fabrics made-up, machinery & instruments and plastic & linoleum products.

Table 2.1: India's trade with Russia, 2001-02 to 2007-08 (US$ mn)

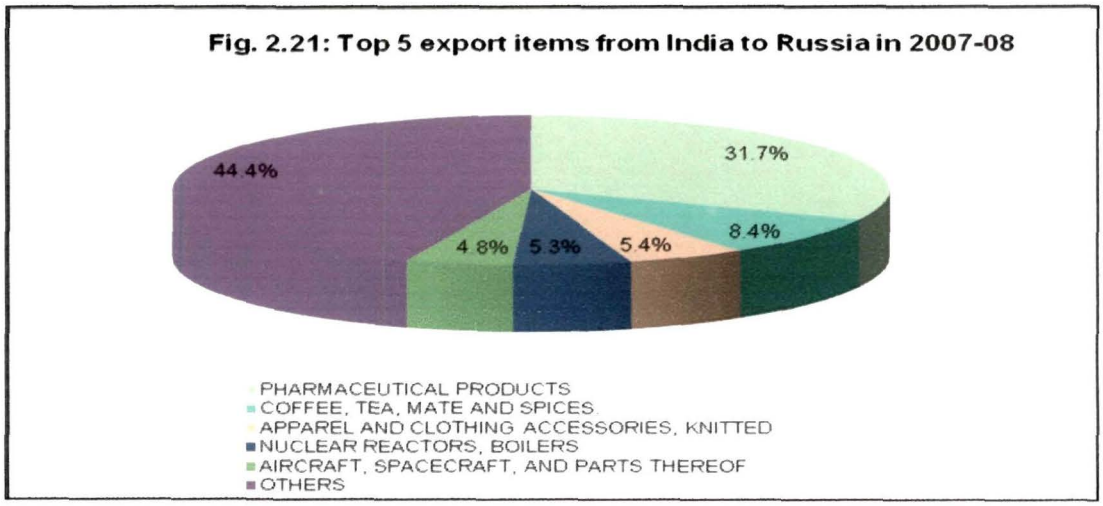
	01-02	02-03	03-04	04-05	05-06	06-07	07-08
Exports	798.2	704.0	713.8	631.3	733.2	902.2	940.2
Imports	535.5	592.6	959.6	1322.7	2,022.2	2407.6	2469.7

SOURCE: DGCIS, MOCI (2008)

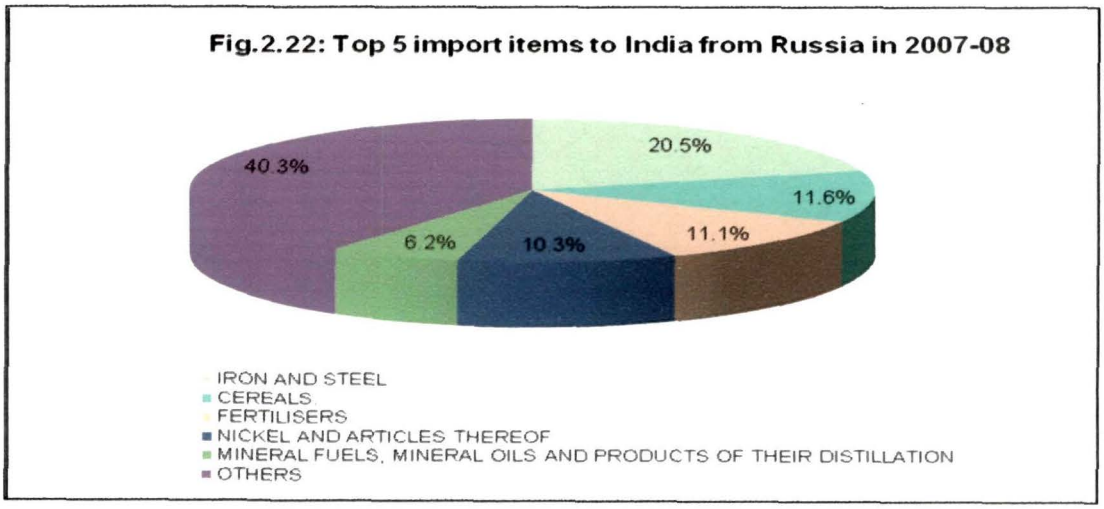
India's imports from Russia, on the other hand have registered continuous rise. From US$ 1322.7mn in 2004-05, imports from Russia increased to US$ 2407.6mn in 2006- 07 and then to US$ 2469.7mn in 2007-08 (Table 2.1). India's trade balance with Russia, which was in surplus in the previous years, has moved into a deficit of US$ 691.4mn in 2004-05, which more than doubled to US$ 1505.4mn in 2006- 07 and US$ 1529.5mn in 2007-08 (Fig.2.20), reflecting the sharp rise in imports. Drugs and pharmaceuticals are the largest exports to Russia, with a share of 31.7% in total Indian exports to Russia in 2007-08. Coffee is the second largest export items with a share of 8.4% in total exports (Fig.2.21). As regards imports, iron and steel are the largest import items from Russia, with a share of 20.5% of total imports from Russia during 2007-08. Cereals were the second largest import item in 2007-08 with a share of 11.6%. Fertilizers and nickel and articles accounted for 11.1% and 10.3%, respectively, of total imports in 2007-08 (Fig.2.22).



SOURCE: DGCIS, MOCI (2008)



SOURCE: DGCIS, MOCI (2008)



SOURCE: DGCIS, MOCI (2008)

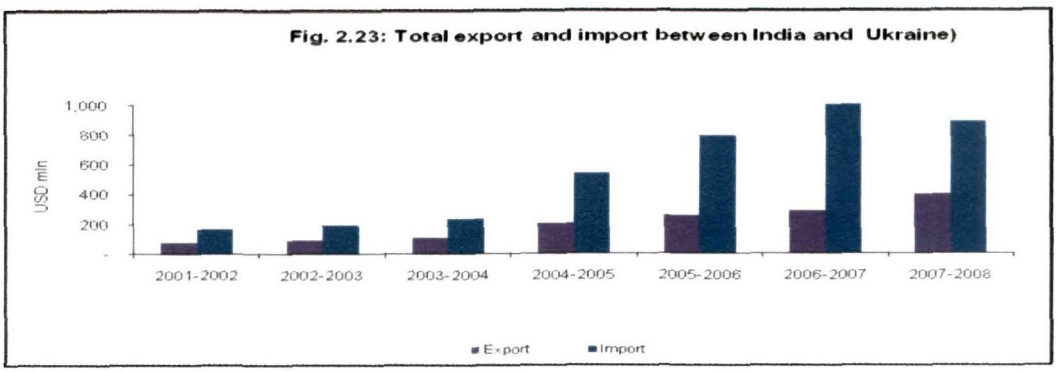
2.5.2 UKRAINE

Ukraine is the second largest trading partner of India after Russia in the CIS region. Exports to Ukraine have witnessed a rising trend in recent years; from US$ 81.1mn in 2001- 02 to US$207.7mn in 2004-05. In 2007-08, exports rose to touch US$ 398.8mn (Table 2.2), on account of substantial rise in exports of drugs and pharmaceuticals, transport equipments, plastic & linoleum products, coffee and tobacco. India's imports from Ukraine have also been on an uptrend since 2001-02. From US$ 166.9mn in 2001-02, imports from the country have risen continuously to US$ 538.7mn in 2004-05. In 2006-07, imports amounted to US $997.8mn due mainly to a substantial rise in imports of iron and steel, fertilizers, transport equipments and non-electrical machinery. Imports for 2007-08 amounted to US$ 885.5mn (Table 2.2). India generally maintains a negative trade balance with Ukraine, which has risen from US$ 85.8mn in 2001-02 to US$ 486.7mn in 2007-08 due to the sharp rise in imports from Ukraine (Fig. 2.23). In 2007-08, Drugs and pharmaceuticals are the largest items of export to Ukraine with a share of 29.7% of total Indian exports to Ukraine. Nuclear reactors (18.8%), transport equipments (10.8%), and iron and steel (9.9%) are the other major export items (Fig. 2.24). As regards imports, iron and steel are the largest component of India's imports from Ukraine. In 2007-08 its share was 33.3% of total imports (Fig.2.25). Fertilizers, inorganic &organic chemicals, transport equipment, gold, non-electrical equipments, and pulses are other major imports from Ukraine.

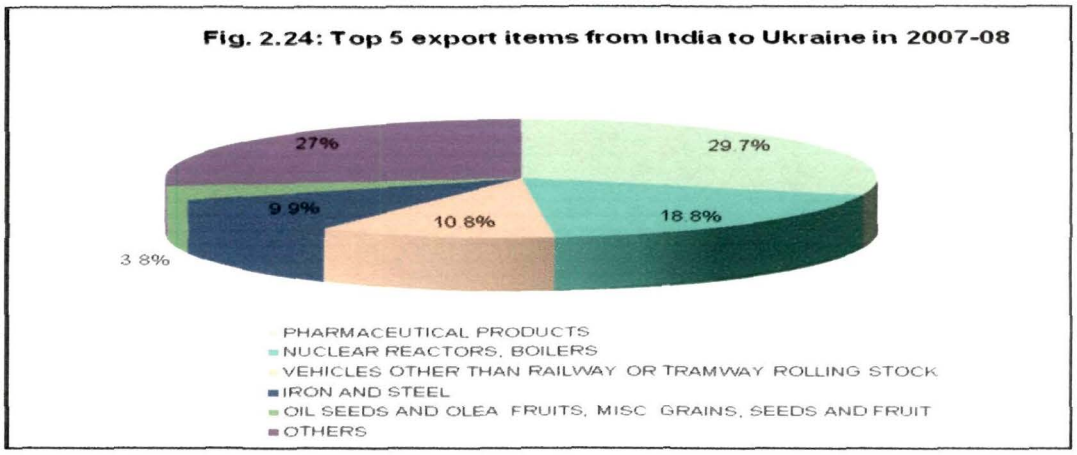
Table 2.2: India's trade with Ukraine, 2001-02 to 2007-08 (US$ mn)

	01-02	02-03	03-04	04-05	05-06	06-07	07-08
Exports	81.1	93.7	110.3	207.7	258.2	289.4	398.8
Imports	166.9	195.0	235.2	538.7	792.4	997.8	885.5

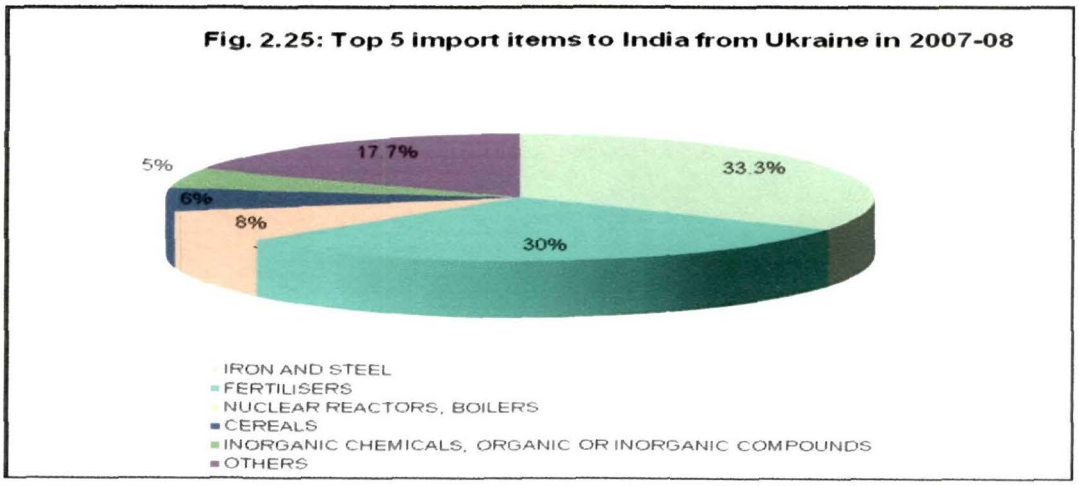
SOURCE: DGCIS, MOCI (2008)



SOURCE: DGCIS, MOCI (2008)



SOURCE: DGCIS, MOCI (2008)



SOURCE: DGCIS, MOCI (2008)

2.5.3 KAZAKHSTAN

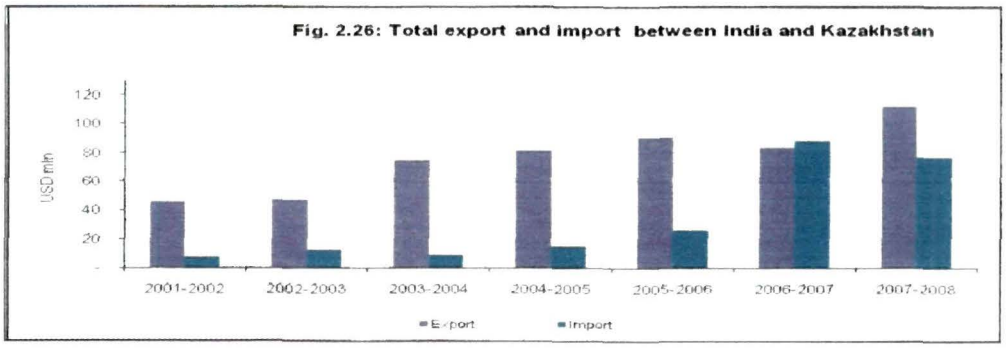
Indian exports to Kazakhstan have increased substantially from US$ 45.7mn 2001-02 to US$ 111.9mn in 2007-08 (Table2.3). Imports from Kazakhstan on the other hand have displayed a fluctuating trend. In 2007-08, imports from Kazakhstan amounted to US$ 76.8mn as compared to US$ 88.1mn in the previous year (Table 2.3). Bilateral trade balance has been in India's favour, with India's trade surplus with the country having risen from US$ 38.3mn in 2001-02 to US$ 35.1mn in 2007-08 (Fig.2.26). Drugs, pharmaceutical & fine chemicals are the major items of export from India to Kazakhstan, with a share of 24.6% of total Indian exports to Kazakhstan in 2007-08.

Table 2.3: India's trade with Kazakhstan, 2001-02 to 2007-08 (US$ mn)

	01-02	02-03	03-04	04-05	05-06	06-07	07-08
Exports	45.7	46.9	74.8	81.4	90.9	83.3	111.9
Imports	7.4	12.7	9.3	15.4	26.3	88.1	76.8

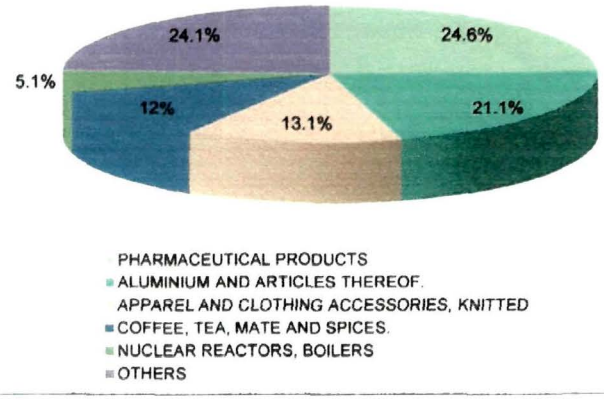
SOURCE: DGCIS, MOCI (2008)

Aluminium and articles are the second largest export items with a share of 21.1%, followed by clothing with a share of 13.1%. The other major export items include readymade garments cotton, leather garments, and metals (Fig.2.27). Zinc and articles are the most important import items from Kazakhstan with a share of 56.6% of total imports in 2007-08. Iron and steel followed with a share of 22.4% in 2007-08. Other major import items from Kazakhstan are silver, and metaliferrous ores & metal scraps (Fig. 2.28).



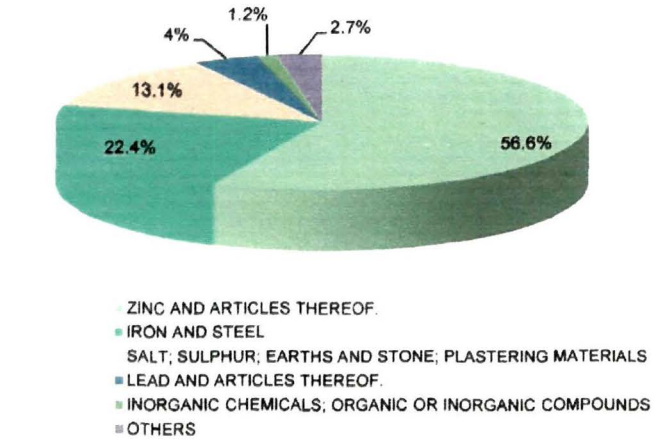
SOURCE: DGCIS, MOCI (2008)

Fig.2.27:Top 5 export items from India to Kazakhstan in 2007-08



SOURCE: DGCIS, MOCI (2008)

Fig.2.28:Top 5 import items to India from Kazakhstan in 2007-08



SOURCE: DGCIS, MOCI (2008)

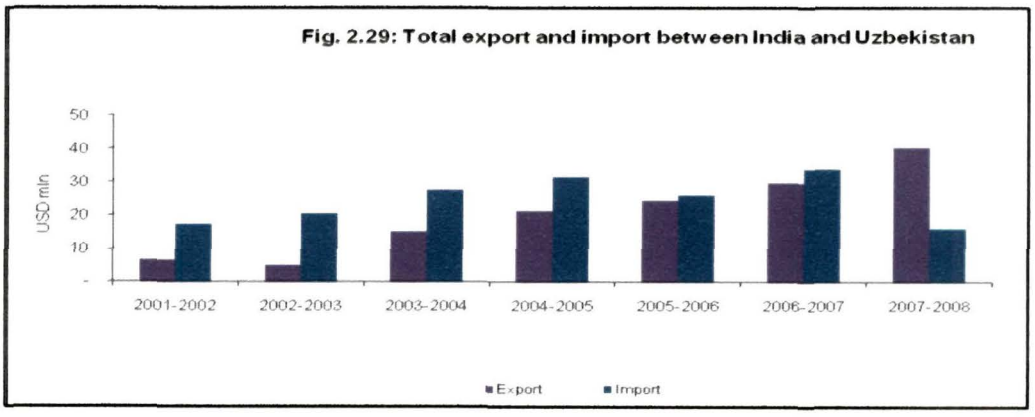
2.5.4 UZBEKISTAN

India's exports to Uzbekistan, after registering a decline during 2002- 03, picked up thereafter to US$ 40.3mn in 2007-08 (Table 2.4). The recent pick up in total exports to Uzbekistan has been mainly due to increase in exports of drugs and pharmaceuticals, paper/wood products and machinery & instruments. Imports from Uzbekistan have fluctuating since 2001-02, from US$17.3mn to US$16.1mn in 2007-08 (Table 2.4). In 2005-06, total imports from Uzbekistan stood at US$26.1mn. India generally maintains a trade balance with the country, with the balance having increased from US$ 10.8mn in 2001-02 to US$24.2mn in 2007-08 (Fig. 2.29). Drugs and pharmaceuticals are the main items of exports with a share of 54.2% of total exports to Uzbekistan in 2007-08. Nuclear reactors, boilers and machinery were the second highest export items in 2007-08 with a share of 17.9% in total exports. Other major export items are machinery and instruments, paper/wood products and inorganic/organic/agro chemicals (Fig. 2.30). As regards imports, non-ferrous metals are the largest import items from Uzbekistan with a share of 85.2% of total Indian imports from Uzbekistan in 2007-08. Cotton constitutes the second largest import item with a share of 4.2%. Pulses, synthetic and regenerated fibers, and raw silk are the other important imports from Uzbekistan(Fig.2.31).

Table 2.4: India's trade with Uzbekistan, 2001-02 to 2007-08 (US$ mn)

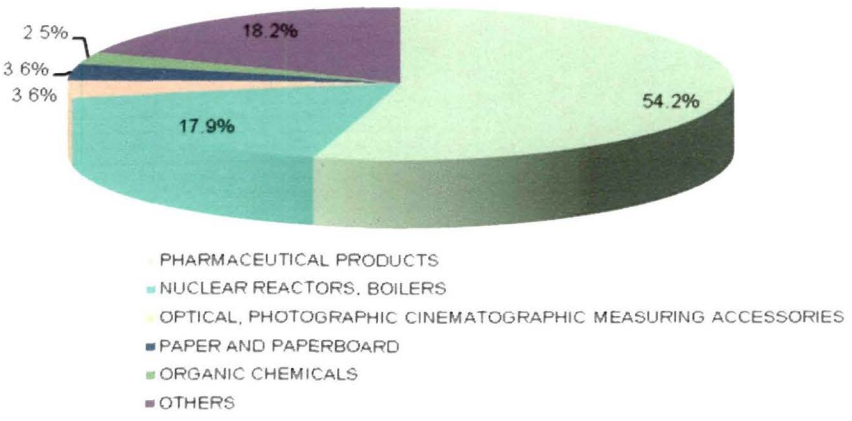
	01-02	02-03	03-04	04-05	05-06	06-07	07-08
Exports	6.5	5.1	15.1	21.4	24.4	29.7	40.3
Imports	17.3	20.5	27.7	31.5	26.1	33.9	16.1

SOURCE: DGCIS, MOCI (2008))



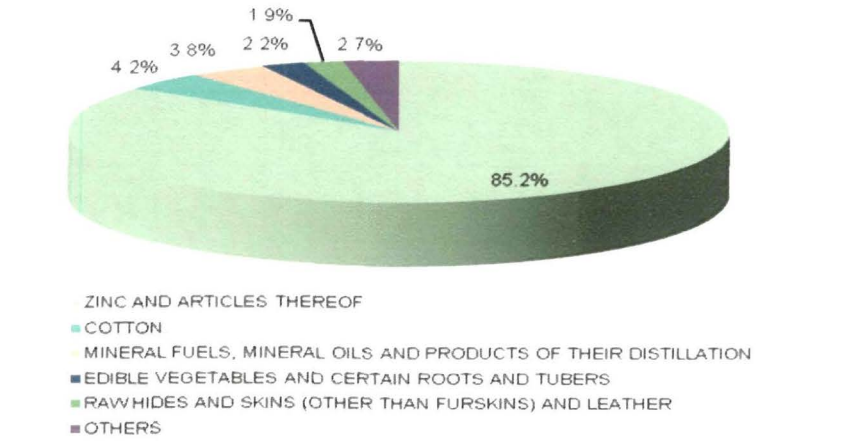
SOURCE: DGCIS, MOCI (2008)

Fig. 2.30: Top 5 export items from India to Uzbekistan in 2007-08



SOURCE: DGCIS, MOCI (2008)

Fig. 2.31: Top 5 import items to India from Uzbekistan in 2007-08



SOURCE: DGCIS, MOCI (2008)

2.5.5 BELARUS

India's exports to Belarus, after declining in 2001-02 (Fig.2.32), have increased thereafter to amount to US$ 6.5mn in 2003-04, and further to US$ 14.4mn in 2006-07 and US$ 21.2mn in 2007-08 (Table 2.5). Imports from Belarus have also increased from US$ 5mn in 2001-02 to US$ 93.3mn in 2006-07 and US$ 125.3mn in 2007-08.

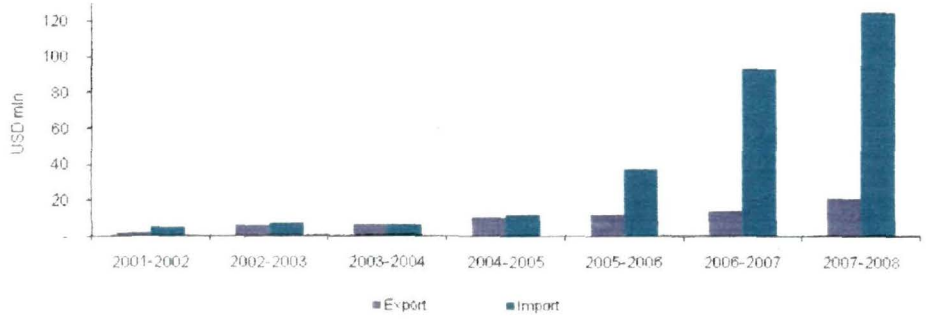
Table 2.5: India's trade with Belarus, 2001-02 to 2007-08 (US$ mn)

	01-02	02-03	03-04	04-05	05-06	06-07	07-08
Exports	2.2	5.9	6.5	10.6	12.2	14.4	21.2
Imports	5	7.1	6.7	12.3	37.9	93.3	125.3

SOURCE: DGCIS, MOCI (2008)

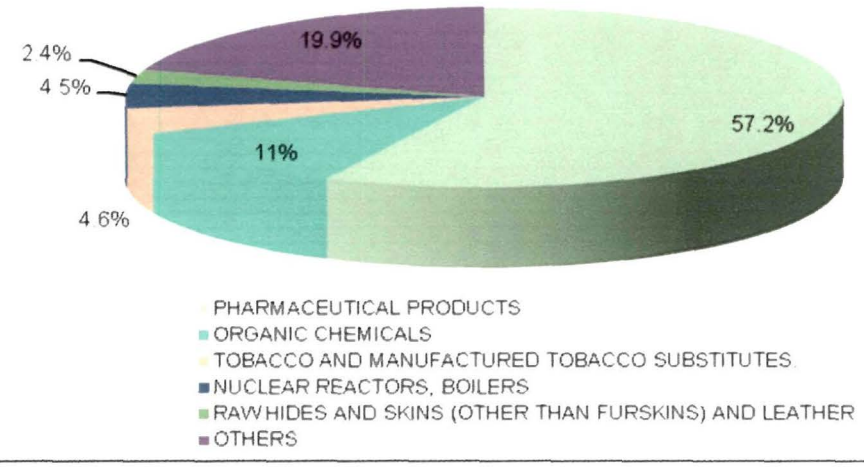
India generally maintains a negative trade balance with Belarus, with the deficit rose from US$ 2.8mn in 2001-02 to US$ 78.9mn in 2006- 07 and US$ 104.1mn in 2007-08 (Table 2.5). Drugs and pharmaceuticals were the largest export items in 2007-08 with a share of 57.2% of total exports to Belarus. Organic chemicals come next with a share of 11%, while that of unmanufactured tobacco was 4.6% (Fig. 2.33). The other important items of export are electronic goods, tea, plastic and linoleum products, and processed minerals. In imports, fertilizers had the largest share of 70.9% of total imports from Belarus in 2007-08. The second largest import item was impregnated, coated, covered and laminated textile fabrics with a share of 11%, followed by rubber with a share of 5.4% in 2007-08 .Iron and steel, inorganic chemicals and leather are other important items of import from Belarus (Fig.2.34).

Fig. 2.32: Total export and import between India and Belarus



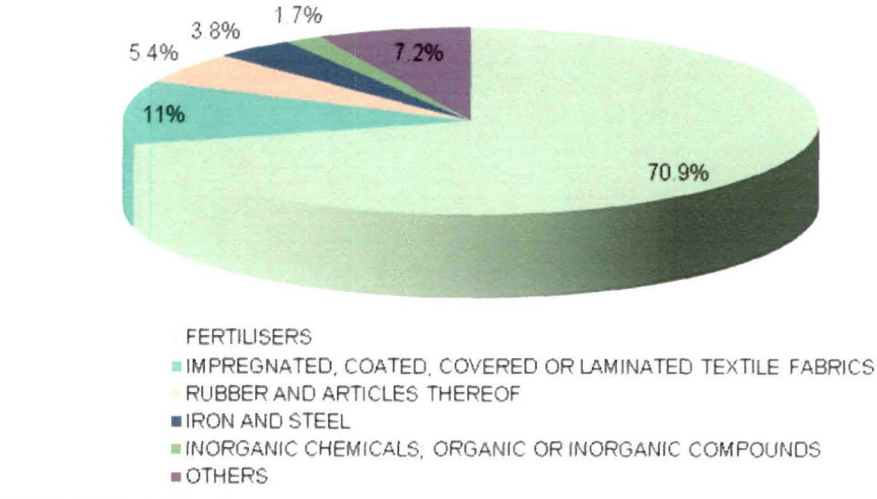
SOURCE: DGCIS, MOCI (2008)

Fig. 2.33: Top 5 export items from India to Belarus in 2007-08



SOURCE: DGCIS, MOCI (2008)

Fig. 2.34: Top 5 import items to India from Belarus in 2007-08



SOURCE: DGCIS, MOCI (2008)

2.5.6 ARMENIA

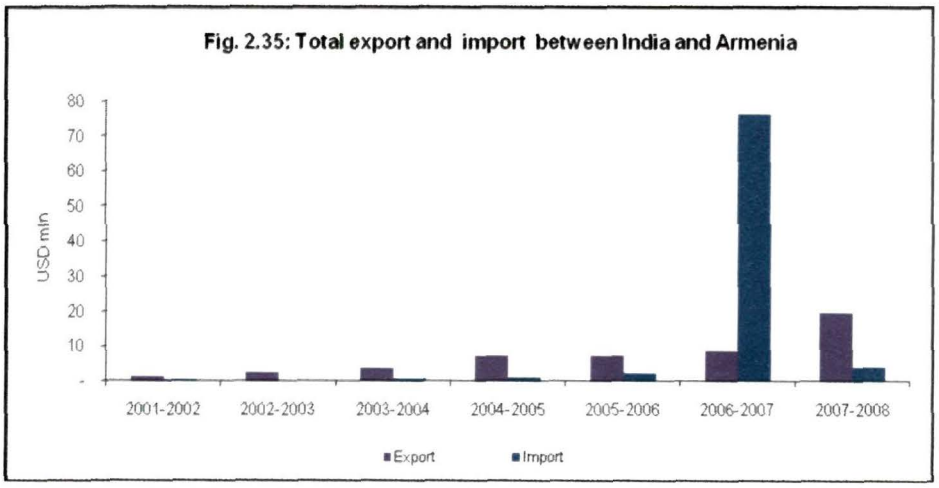
India's exports to Armenia have registered an increasing trend. From US$ 1.3mn in 2001-02, exports increased to US$ 7.2mn in 2004- 05 (Fig. 2.35), slightly down to US$ 7.18mn in 2005-06 and then again going up to US$ 8.6mn in 2006-07 and US$ 19.9mn in 2007-08 (Table2.6). India's main exports to Armenia in 2007-08 are meat and preparation (US$10.4mn), nuclear reactor, boilers and machinery (US$ 3.7mn) and gems and jewelry (US$ 3.2mn) (Fig. 2.36). India's imports from Armenia, after declining from US$0.5mn in 2000-01 to US$ 0.2mn in 2002- 03, increased thereafter to US$ 0.8mn in 2004-05, and further to US$ 2.1mn in 2005-06. Import increased suddenly in 2006-07 due to the import of ores, slag and ash worth US$ 76.1mn. Imports came down to US$ 3.8mn in 2007-08 (Table 2.6). In 2007-08, main items of imports from Armenia were inorganic chemicals (US$ 2.2mn), rubber and articles (US$ 0.5mn) and copper (US$ 0.49mn) (Fig.2.37).

Table 2.6: India's trade with Armenia, 2002-03 to 2007-08 (US$ mn)

	01-02	02-03	03-04	04-05	05-06	06-07	07-08
Exports	1.3	2.5	3.5	7.2	7.18	8.6	19.9
Imports	0.5	0.2	0.7	0.8	2.1	76.1	3.8

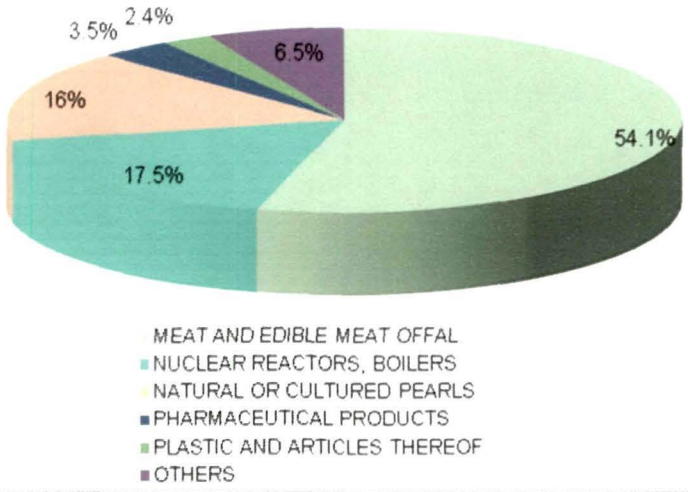
SOURCE: DGCIS, MOCI (2008)

Fig. 2.35: Total export and import between India and Armenia



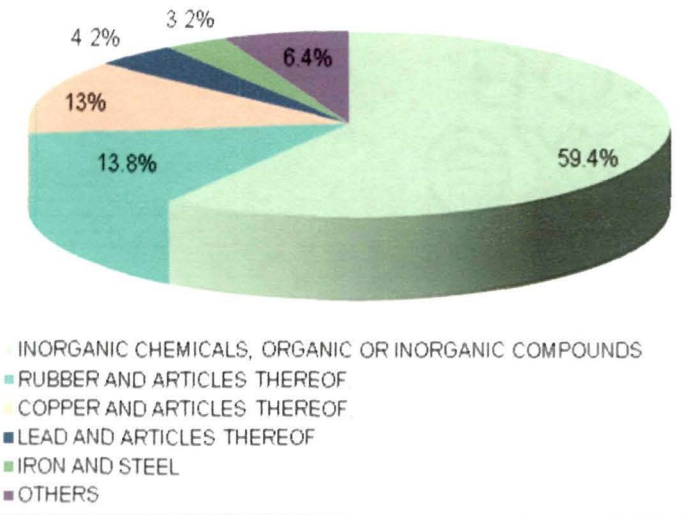
SOURCE: DGCIS, MOCI (2008)

Fig. 2.36: Top 5 export items from India to Armenia in 2007-08



SOURCE: DGCIS, MOCI (2008)

Fig. 2.37: Top 5 import items to India from Armenia in 2007-08



SOURCE: DGCIS, MOCI (2008)

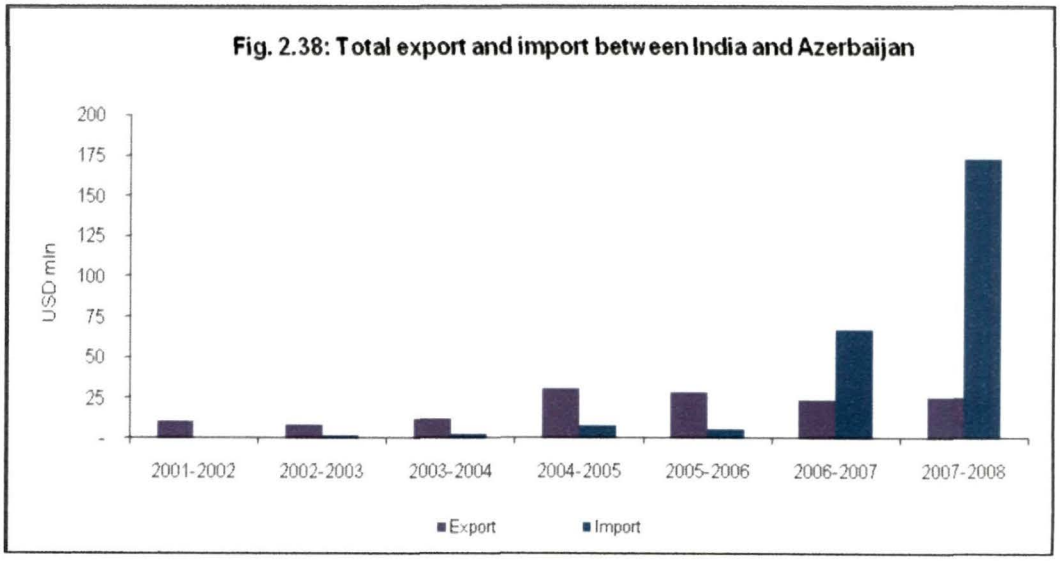
2.5.7 AZERBAIJAN

India's exports to Azerbaijan increased from US$ 12.3mn in 2003-04 (Fig.2.38) to US$ 30.8mn in 2004- 05, US$ 28.8mn in 2005-06 and stood at US$ 24.5mn in 2006-07 and US$ 25.8mn in 2007-08 (Table 2.7). India's major exports to Azerbaijan in 2007-08 are pharmaceutical products (US$ 8.27mn) and meat (US$ 7.05mn). India's imports from Azerbaijan increased from US$ 3.0mn in 2003- 04 to US$ 7.7mn in 2004-05, but in 2005-06 decreased to the mark of US$ 5.9mn (Fig.2.39). Imports were US$ 67mn in 2006-07 and US$ 172.7mn in 2007-08 (Table 2.7). The main items of import from Azerbaijan are non- ferrous metals and non-metallic mineral manufactures. Import has been increasing in the past two periods due to the import of mineral fuels, mineral oils and products of their distillation from Azerbaijan (Fig.2.40).

Table 2.7 : India's trade with Azerbaijan, 2001-02 to 2007-08 (US$ mn)

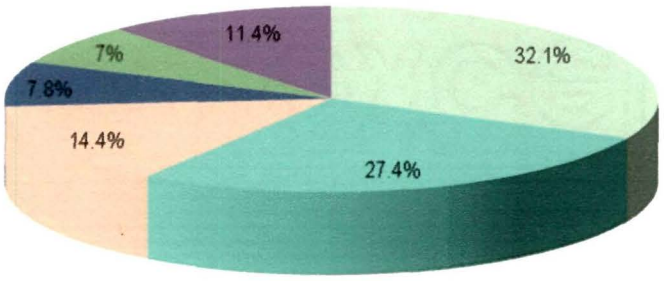
	01-02	02-03	03-04	04-05	05-06	06-07	07-08
Exports	10.7	8.6	12.3	30.8	28.8	24.5	25.8
Imports	0.2	1.7	3	7.7	5.9	67	172.7

SOURCE: DGCIS, MOCI (2008)



SOURCE: DGCIS, MOCI (2008)

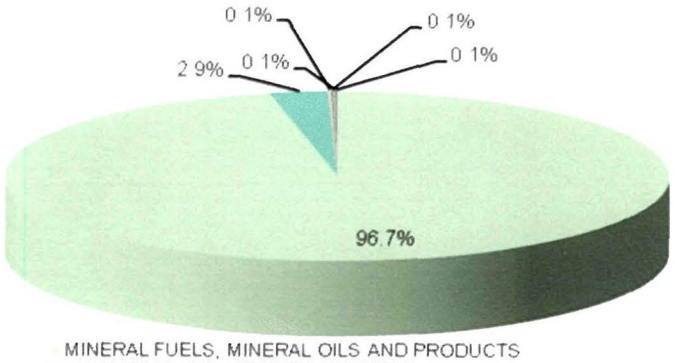
Fig. 2.39: Top 5 export items from India to Azerbaijan in 2007-08



PHARMACEUTICAL PRODUCTS
MEAT AND EDIBLE MEAT OFFAL
APPAREL AND CLOTHING ACCESSORIES, KNITTED
ARTICLES OF APPAREL AND CLOTHING ACCESSORIES, NOT KNITTED
NUCLEAR REACTORS, BOILERS
OTHERS

SOURCE: DGCIS, MOCI (2008)

Fig. 2.40:Top 5 import items to India from Azerbaijan in 2007-08



MINERAL FUELS, MINERAL OILS AND PRODUCTS
ALUMINIUM AND ARTICLES THEREOF
INORGANIC CHEMICALS, ORGANIC OR INORGANIC COMPOUNDS
RAW HIDES AND SKINS (OTHER THAN FURSKINS) AND LEATHER
IRON AND STEEL
OTHERS

SOURCE: DGCIS, MOCI (2008)

2.5.8 GEORGIA

India's exports to Georgia rose from US$ 26.8mn in 2004-05 to US$ 40.9mn in 2006-07 to US$ 92.9mn in 2007-08 (Table 2.8). The main items of exports in 2007-08 are ores, slag and ash (US$ 25.33mn), inorganic chemicals (US$ 23.45mn), meat (US$ 16.05mn) (Fig. 2.42). Imports from Georgia, on the other hand, have increased substantially from US$ 5.4mn in 2003-04 to US$ 75.0mn in2006-07, mainly on account of a sharp rise in imports of ores of metaliferrous and metal scrap. The main items of imports in 2007-08 (Table 2.8) are metaliferrous ores and metal scrap (US$ 3.59mn), lead and articles (US$ 2.06mn) and aluminum and articles (US$ 1.29mn) (Fig.2.43). Imports came down drastically in 2007-08 to US$ 10.7mn due to drastic cuts in minerals fuels and mineral oils import which accounted for US$ 65.39mn in 2006-07 (Fig. 2.41)

Table 2.8: India's trade with Georgia, 2001-02 to 2007-08 (US$ mn)

	01-02	02-03	03-04	04-05	05-06	06-07	07-08
Exports	8.3	18.8	34	26.8	34.2	40.9	93
Imports	0	6.7	5.4	15.4	19.9	75	10.7

SOURCE: DGCIS, MOCI (2008)

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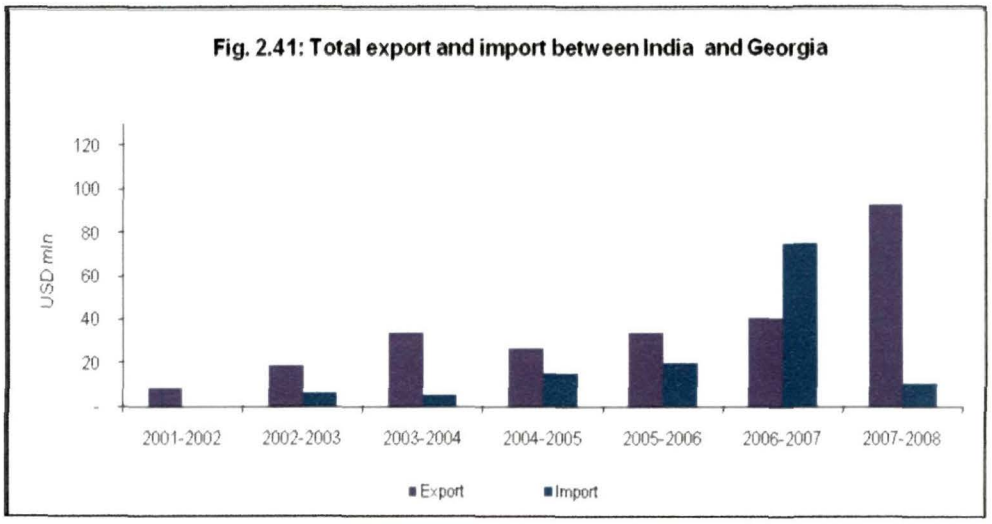
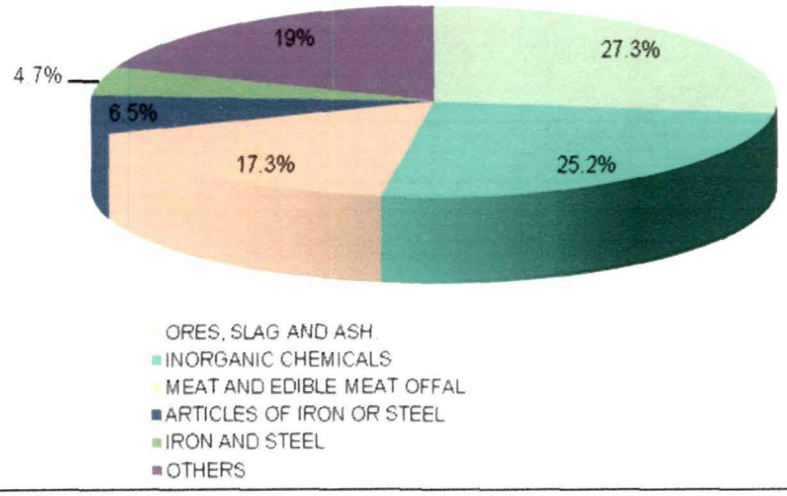


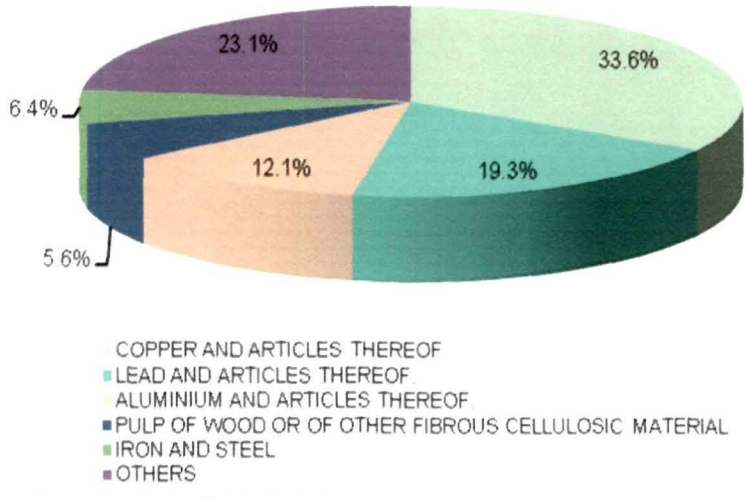
SOURCE: DGCIS, MOCI (2008)

Fig. 2.42: Top 5 export items from India to Georgia in 2007-08



SOURCE: DGCIS, MOCI (2008)

Fig. 2.43: Top 5 import items to India from Georgia in 2007-08



SOURCE: DGCIS, MOCI (2008)

2.5.9 MOLDOVA

India's exports to Moldova have risen from US$ 1.9mn in 2001-02 (Fig.2.44) to US$ 5.6mn in 2004-05, before contracting marginally to US$ 5.4mn in 2005-06 and US$ 5.5mn in 2006-07 to US$ 7.4mn in 2007-08 (Table 2.9). The main items of exports in 2007-08 are drugs and pharmaceuticals (US$5.01mn), textile fibers (US$ 0.83mn) and nuclear reactors (US$ 0.73mn) (Fig.2.45).

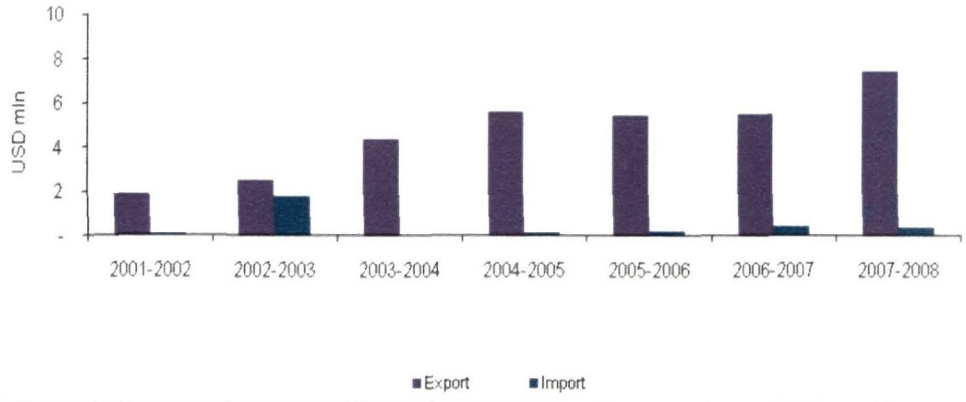
Table 2.9: India's trade with Moldova, 2001-02 to 2007-08 (US$ mn)

	01-02	02-03	03-04	04-05	05-06	06-07	07-08
Exports	1.9	2.5	4.4	5.6	5.4	5.5	7.4
Imports	0.1	1.8	0	0.2	0.2	0.5	0.4

SOURCE: DGCIS, MOCI (2008)

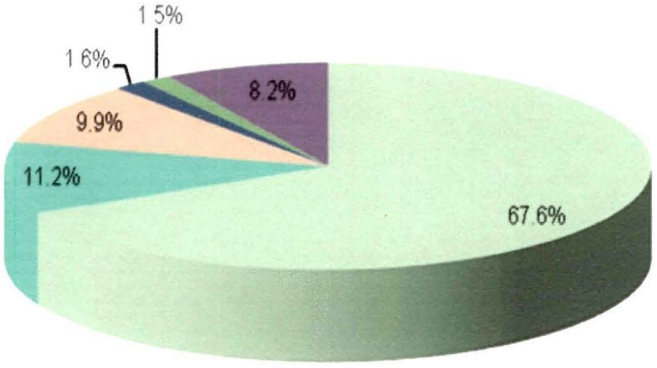
India's imports from Moldova have also increased from US$ 0.2mn in 2004-05 to US$ 0.4mn in 2007-08 (Table 2.9), with the main items being optical apparatus (US$ 0.29mn), and nuclear reactors, boilers and machinery (US$ 0.08mn) (Fig.2.46).

Fig. 2.44: Total export and import between India and Moldova



SOURCE: DGCIS, MOCI (2008)

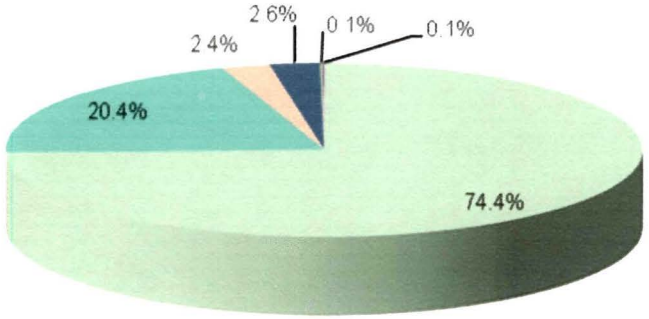
Fig. 2.45: Top 5 export items from India to Moldova in 2007-08



PHARMACEUTICAL PRODUCTS
OTHER VEGETABLE TEXTILE FIBRES
NUCLEAR REACTORS, BOILERS
ALBUMINOIDAL SUBSTANCES, MODIFIED STARCHES
IRON AND STEEL
OTHERS

SOURCE: DGCIS, MOCI (2008)

Fig. 2.46: Top 5 import items to India from Moldova in 2007-08



OPTICAL, PHOTOGRAPHIC CINEMATOGRAPHIC MEASURING APPARATUS
NUCLEAR REACTORS, BOILERS
APPAREL AND CLOTHING ACCESSORIES, NOT KNITTED
ELECTRICAL MACHINERY AND EQUIPMENT AND PARTS THEREOF
BEVERAGES, SPIRITS AND VINEGAR
OTHERS

SOURCE: DGCIS, MOCI (2008)

2.5.10 TAJIKISTAN

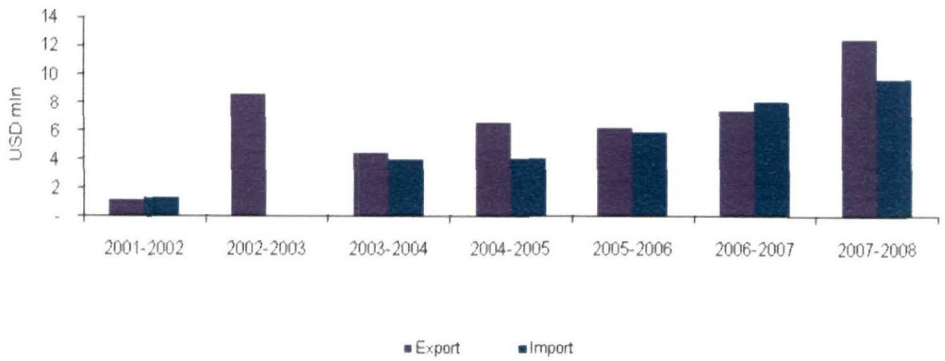
India's exports to Tajikistan have risen from US$ 1.2mn in 2001-02 (Fig.2.47) to US$ 6.6mn in 2004-05, and stood at US$ 6.2mn in 2005-06 and US$ 7.4mn in 2006-07 to US$ 12.4mn in 2007-08 (Table 2.10). The major items of exports are meat (US$ 4.53mn), pharmaceutical products (US$ 3.76mn), iron and steel (US$ 0.90mn), readymade woolen garments (US$ 0.87mn), and dairy products (US$ 0.60mn) (Fig.2.48). Imports from Tajikistan amounted to US$ 9.7mn in 2007- 08, a sharp rise from US$ 1.3mn in 2001-02, with major import items being non-ferrous metals (US$ 8.41mn) and cotton (US$ 1.23mn) (Fig.2.49).

Table 2.10: India's trade with Tajikistan, 2001-02 to 2007-08 (US$ mn)

	01-02	02-03	03-04	04-05	05-06	06-07	07-08
Exports	1.2	8.7	4.5	6.6	6.2	7.5	12.4
Imports	1.3	0.1	4	4.1	5.9	8.1	9.7

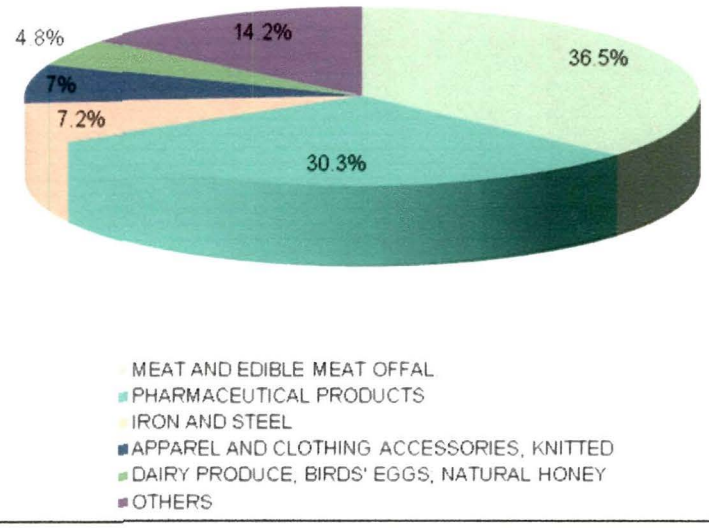
SOURCE: DGCIS, MOCI (2008)

Fig. 2.47: Total export and import between India and Tajikistan



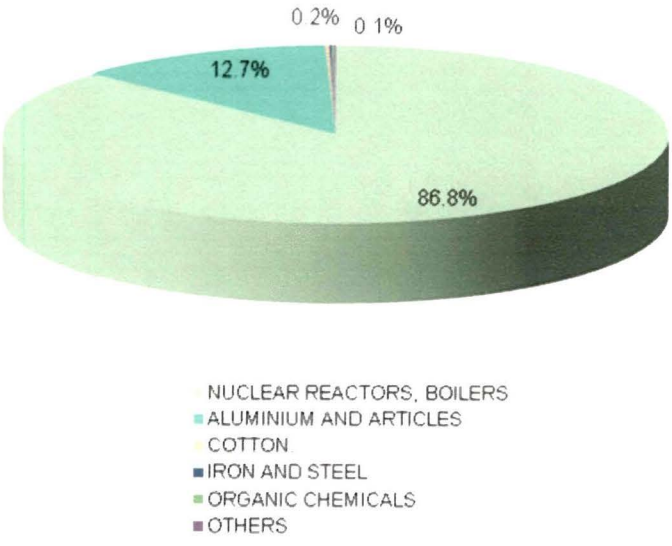
SOURCE: DGCIS, MOCI (2008)

Fig. 2.48: Top 5 export items from India to Tajikistan in 2007-08



SOURCE: DGCIS, MOCI (2008)

Fig. 2.49: Top 5 import items to India from Tajikistan in 2007-08



SOURCE: DGCIS, MOCI (2008)

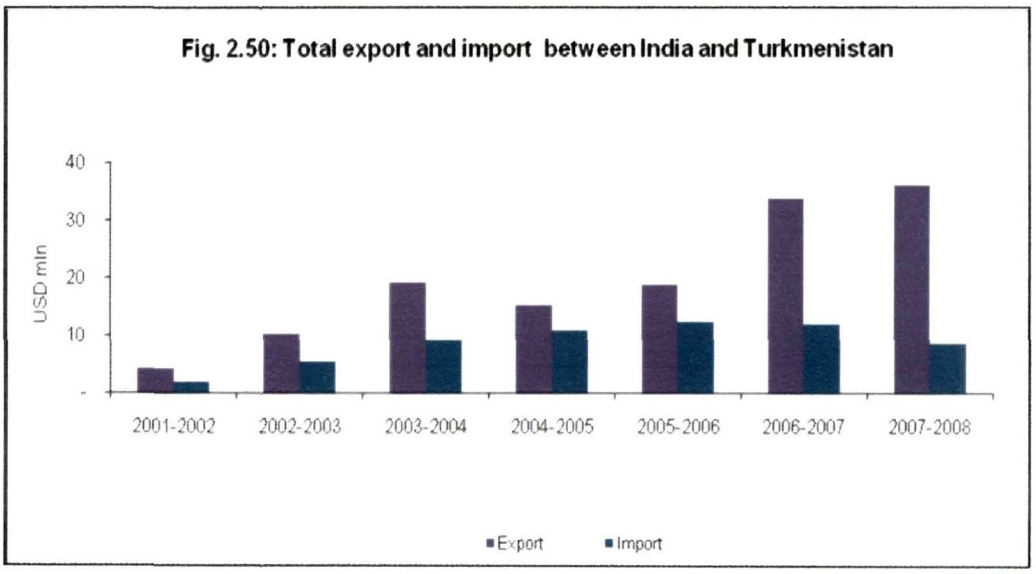
2.5.11 TURKMENISTAN

India's exports to Turkmenistan have risen from (Fig.2.50) US$ 4.4mn in 2001-02 to US$ 33.8mn in 2006-07 to US$ 36.1mn in 2007-08 (Table 2.11), with the major export items being electronic goods, drugs and pharmaceuticals, cotton readymade garments, and machinery &instruments (Fig.2.51). India's imports from Turkmenistan have also increased from US$ 2.0mn in 2001-02 to US$ 12.1mn in 2006-07. Imports fell to US$ 8.6mn in 2007-08 (Table 2.11). The major items of import are raw cotton, and inorganic chemicals (Fig.2.52).

Table 2.11: India's trade with Turkmenistan, 2001-02 to 2007-08 (US$ mn)

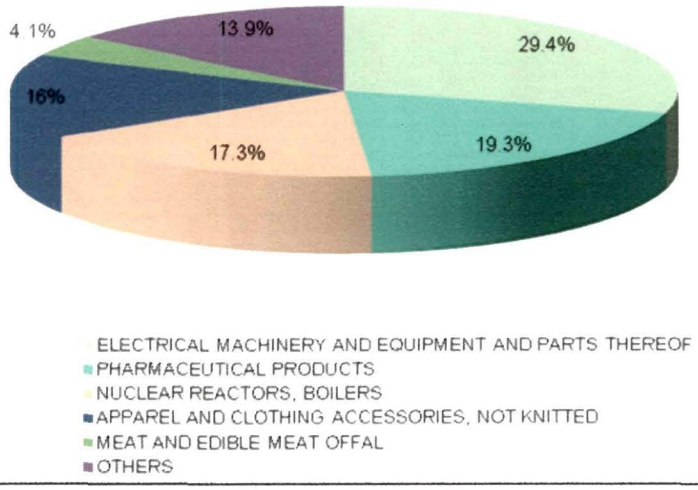
	01-02	02-03	03-04	04-05	05-06	06-07	07-08
Exports	4.4	10.3	19.2	15.3	18.8	33.8	36.1
Imports	2.0	5.4	9.3	10.9	12.4	12.1	8.6

SOURCE: DGCIS, MOCI (2008)



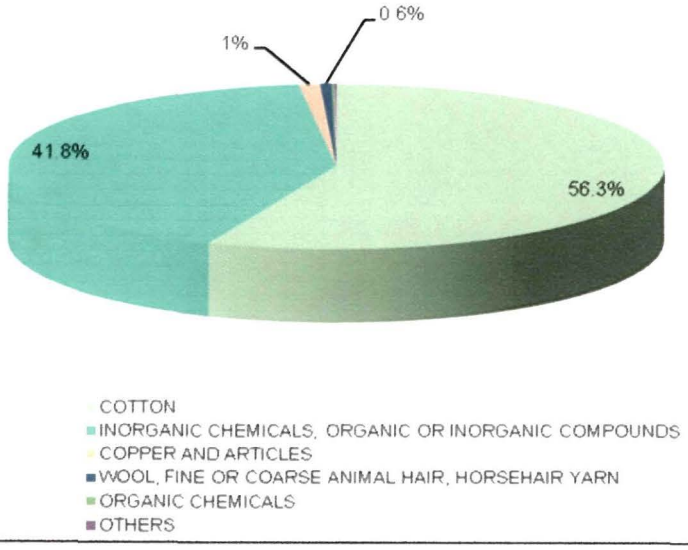
SOURCE: DGCIS, MOCI (2008)

Fig. 2.51: Top 5 export items from India to Turkmenistan in 2007-08



SOURCE: DGCIS, MOCI (2008)

Fig.2.52: Top 5 import items to India from Turkmenistan in 2007-08



SOURCE: DGCIS, MOCI (2008)

2.5.12 KYRGYZSTAN

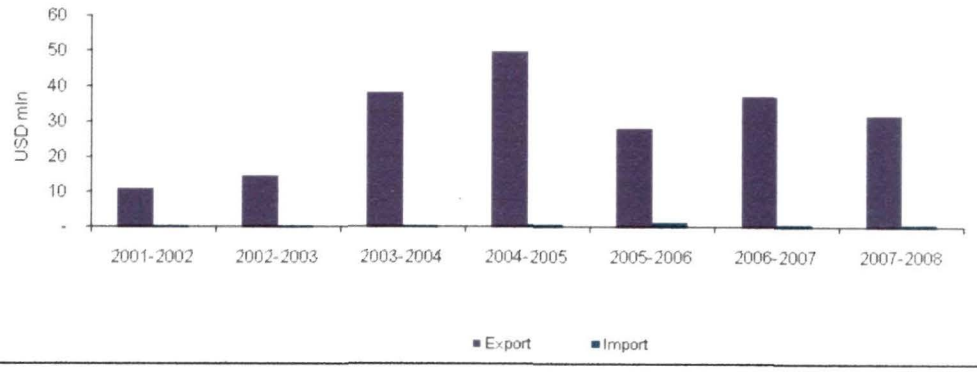
India's exports to Kyrgyz Republic have risen from US$ 11.0mn in 2001-02 to US$ 49.6mn in 2004- 05 (Fig.2.53), but sharply decreased to US$ 28.1mn in 2005-06. But in 2006-07 have risen US$ 37.2mn of growth at 32.46 percent. It again dipped to US$ 31.6mn in 2007-08 (Table 2.12). The major items of export for 2007-08 are articles of apparel and clothing accessories, knitted or crocheted (US$ 15.9mn), articles of apparel and clothing accessories, non knitted or crocheted (US$ 5.6mn), and drugs & pharmaceuticals (US$ 2.9mn) (Fig.2.54). India's imports, on the other hand, have increased from US$ 0.5mn in 2002-03 to US$ 0.8mn in 2006-07 to US$ 0.9mn in 2007-08 (Table 2.12). The major import items for 2007-08 are aircraft and spacecraft parts (US$ 0.35mn) and copper and articles (US$ 0.18mn) (Fig.2.55).

Table 2.12: India's trade with Kyrgyzstan, 2001-02 to 2007-08 (US$ mn)

	01-02	02-03	03-04	04-05	05-06	06-07	07-08
Exports	11	14.7	38.2	49.6	28.1	37.2	31.6
Imports	0.6	0.5	0.5	0.6	1.5	0.8	0.9

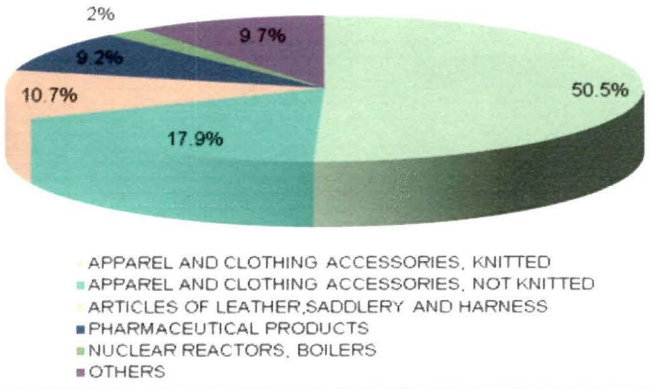
SOURCE: DGCIS, MOCI (2008)

Fig. 2.53: Total export and import between India and Kyrghyzstan



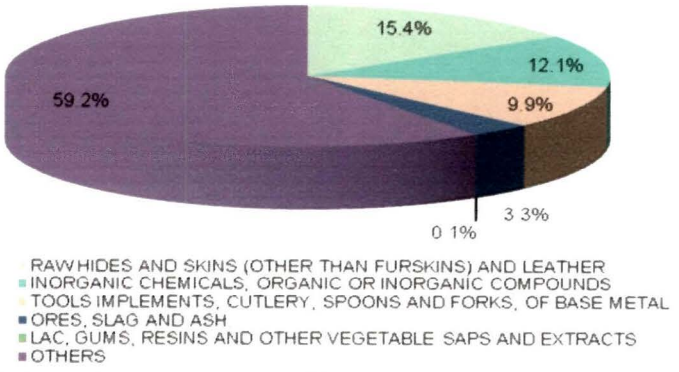
SOURCE: DGCIS, MOCI (2008)

Fig. 2.54: Top 5 export items from India to Kyrgyzstan in 2007-08



SOURCE: DGCIS, MOCI (2008)

Fig. 2.55: Top 5 import items to India from Kyrgyzstan in 2007-08



SOURCE: DGCIS, MOCI (2008)

References

Ghosh, D. K. (1992). *Economics of Indo-Soviet Trade (1953-1990): A Cost-Benefit Analysis*. New Delhi, Gian, vii, pp.262 .

Rai, L.H. (1991). *Indo-Soviet Trade Relations*. Mittal Publications, New Delhi.

Sachdeva, G. (2004). *Strengthening Indo-Russian Economic Relations*. Journal on Foreign Affairs and International Relations. Retrieved April 26, 2006, from http://eng.globalaffairs.ru/engsmi/0/563.html

CISSTAT. (2006). Retrieved January 22, 2007, from www.cisstat.com

CHAPTER - 3

3. OBJECTIVES, SCOPE AND LIMITATIONS

In this chapter, we have defined the need for this study and objectives to be achieved through it. India-CIS trade has been increasing in the past few years. To make it more attractive, logistics cost has to be decreased. It can be done by finding the viability of land route through India and CIS countries. We have first tried to understand the composition of supply chain between India and CIS countries with respect to transportation. The next step is to find out various land routes which can be possibly used in India-CIS trade. These land routes have to be compared based on reduction in cost, distance, time, security etc. to come up with the best alternative. Payment procedures have also been analyzed to find out the deficiencies in the payment systems and how they can be streamlined to make them hassle free thereby encouraging more number of traders to participate in Indo-CIS trade.

A cut in transport costs will make Indian goods cheaper and, therefore, more competitive in CIS countries as well as European markets via Russia. The land route will not only boost India's trade with CIS countries and Iran but also that with the Baltic States and the Central Asian Region.

There can be more than one possible land route between India and CIS countries. Prior studies have not covered all the possible routes for their analysis. We propose to cover all the possible and viable routes for our analysis and then we would propose the best possible route which would be best in terms of reduction in cost, time, distance etc.

In order to do so we have set the following objectives of the study.

a) ***To study the composition of supply chain between India and CIS countries with respect to Transportation.***

Transportation is an essential and a major sub-function of logistics that creates time and place utility in goods. In fact, the backbone of the entire supply chain is the transportation management that makes it possible to achieve the well known seven

Rs- the right product in the right quantity and the right condition, at the right place, at the right time, for the right customer at the right cost.

The importance of transportation should also be seen by looking at its impact on a country's economy. The major infrastructure required for moving goods from one place to another in India involves the active roles of roads, road freight industry, railways, ports and shipping, and pipelines, all of which are either managed or regulated by the government.

The deficiencies in the road network in India are causing huge economic losses because of slow transportation. The delay on the roads and ports also results in high inventory cost for the industry, thus affecting its competitiveness vis-à-vis international industry operating on JIT (just-in-time) principles. The congestion at the ports and the insufficiently developed air services also affect foreign investment decisions, which often place a great premium on the infrastructure. International trends indicate that with the growth of the highway and aviation technologies, the traffic tends to shift away from the Railways. However, in the continental economies like United States, China and Russia, the Railways have maintained their dominance. India's size, geography and resource endowments also mandate a dominant role for the Railways, not to mention the environmental considerations, which in recent years have caused a rethinking even in the developed world.

b) To study the viability of land route from India to CIS countries

Land route development is a critical issue for both India and CIS countries. The reason behind is the reduction in cost and time taken for the goods to reach the destination. Currently the route followed by the traders is multimodal. It is a mix of air, sea and land routes. While air route is very expensive, sea route is both costly and time consuming. Air route takes very less time but given the pricing mechanism of products if the quantity traded is not high the per unit air fare becomes very high. For sea route, on the other hand, the time taken is very high as generally the route which is taken is a very long one and also the insurance costs makes the shipping even more expensive option.

A land route between the regions would help Afghanistan and Pakistan benefit from the trade between Central Asian States and India. The trade route would not only generate substantial income for the cash starved Afghan Government, but it will also help improve Pakistan's relation with arch rival India as well as with CIS countries.

For Afghanistan, the issue of having a land route to India is more urgent: India used to be Afghanistan's largest trading partner until 1979. Revival of land trade route would bring much needed cash into Afghanistan, providing a push to the economy and a vote of confidence in a country brutalized for years.

A viable and all time running land route would boost the trade dramatically. It would help India strengthen its trade relationship with CIS countries as well as countries like China and Pakistan. It would be a positive step towards better relations with the neighbours.

c) To study payment procedures followed in trade between India and CIS

Here the attempt is to study the current payment systems in practice in CIS countries. A detailed study of the legal payment systems like cash in advance, consignment sales, letter of credit etc is to be done. There is abundant trade which is taking place through Hundi system. The existence of such system along with the need of same has been studied in detail.

The primary purpose to study various payment procedures is to find out the deficiencies in the payment systems and how can it be streamlined to make it hassle free thereby encouraging more number of traders to participate in Indo-CIS trade.

SCOPE OF THE STUDY:

The study is restricted to the transportation of commodities and goods from India to CIS countries. Not withstanding the restricted scope of the study, it will help in identifying weaker areas of the supply chain in terms of transportation from macro as well as micro view points and recommend suitable strategies. There are many things to be seen in case of transportation to CIS countries. On the surface these things might look small but they affect trade practices heavily. How an issue of

custom practices in India and CIS affect the trade volume is a case in point. Another example could be viability of land route which is very important aspect to study. We would propose multiple land routes from India to CIS and compare them on factors like cost reduction, time reduction, feasibility, safety etc to find out which of them is best suited for trade.

LIMITATIONS:

Major limitations were non availability and reliability of corporate data. Non availability of a database having the details of firms trading with CIS countries was a major limitation. Many a time, corporates were not ready to reveal trade related information/data as they suspect the motive of survey. On the other hand there are many traders who are comfortable with these kinds of surveys but still hide many trade related useful information. In such cases it is difficult to check the authenticity of the data.

To overcome the possible limitation of paucity of reliable data extensive literature survey consisting of several journals, articles and internet was commissioned. This has enabled us to get the required data such as quantum of trade between India and CIS, existing land routes, payment system used in India-CIS trade etc.

CHAPTER - 4

4 METHODOLOGY

The idea behind this study was to collect information from traders who are currently operating in this arena. This is supposed to bring depth and authenticity to the study. Secondary sources of information were also used in doing the study. The information collected from these traders on the basis of their experience in the field of export and import. This formed the primary source of information for the research. Secondary sources of information like journals, white papers, research articles etc were also used in doing the study. Online resources were one of the most used medium for the research. To collect the data from the respondents, a scientifically designed questionnaire was used. The preparation of questionnaire was done in such a way that it covered all the queries relating to the objectives of the research.

As mentioned in the Limitation section above, to overcome the problem of non-availability of any organized database of firms trading with CIS it was decided to conduct a primary survey among the practicing traders (importers and exporters). This study has covered 57 respondents in four cities across India namely, Delhi, Kolkata, Mumbai, and Bangalore. Apart from direct exports, indirect exports (e.g via a third country) have also been seen at the time of interview. The feedbacks from the exporters and importers have been gathered with the help of structured questionnaire. The major variables addressed in the questionnaire were the mode and process of export & import and associated time and other problems apart from general profile of the exporter or the importer. These include various infrastructure and logistics apart from extra transaction cost incurred by the trader due to various procedural measures and malpractices on part of some government authorities. Total supply chain of some of the products for some of the exporters and importers has also been studied in detail. The explanation of each and every variable which has been included in the questionnaire has been dealt in great detail in the study. It is also explained why the particular variable was chosen and what significance it has on the whole supply chain management.

Primary sources of information

a. Survey of 57 respondents
b. Questionnaire

Secondary sources were also used to collect data for CIS countries as already mentioned.

4.1 Sampling

The initial step was to generate database of exporters and importers having trade relations with CIS countries. The identification process started with internet search. The search through net helped in identifying companies trading with different CIS countries, though the number was very small. When contacted these companies through telephone majority of them reported that they used to trade with CIS countries long time back and some of them denied any trade relation with CIS countries.

As the second step, the researcher contacted the relevant industry associations such as Confederation of Indian Industries (CII), Federation of Indian Chambers of Commerce and Industries (FICCI), PHD Chamber of Commerce and Industry (PHDCCI) were identified as a starting point for the study. Also a database was purchased from Federation of Indian Export Organisation (FIEO) containing the list of Indian companies involved in export and import. But the data had only few firms dealing with CIS.

The researcher also identified the relevant export promotion bodies (in Delhi, Mumbai, Kolkata & Bangalore) like FIEO, Indian Tea Association, Chemicals and Allied Products Export Promotion Council, Engineering Export Promotion Council, Agricultural and Processed Food Products Export Development Authority (APEDA), Soyabean Export Promotion Association (SOPA), Rice Exporters Association and Bombay Chamber of Commerce. Researcher obtained a list of a few exporters from APEDA having trade relation with CIS. But when these exporters were contacted almost all of them denied that they were trading with CIS.

Majority of the exporters and importers were identified through references from the ones researcher interviewed. For example, researcher met an exporter in Delhi who provided with a list of around 10 Exporters and Importers trading with CIS. Similarly in cities like Mumbai, Kolkata and Bangalore, references from the near target respondent played an important role in generating the database of exporters and importers trading with CIS.

Non-availability of any organized database of firms trading with CIS acted as a major hindrance in carrying out the primary survey. Also, several respondents were reluctant in providing certain information as they were apprehensive that the information could be used against their business interests. Apart from exporters and importers having trade relation with CIS, researcher also included custom house agent (CHA) / Clearing Agent as the target respondents. The CHA's & Clearing agents were selected based on references from exporters / importers and other industry sources.

This is an exhaustive study covering 57 respondents in cities of Delhi, Kolkata, Mumbai, and Bangalore having trade relations with CIS countries. Apart from direct exports, indirect exports have also been studied at the time of interview.

The feedbacks from the exporters and importers have been gathered with the help of structured questionnaire. The major issues addressed in the questionnaire were the mode & process of export & import and associated time and other problems apart from general profile of the exporter or the importers. These include various infrastructure and logistics apart from extra transaction cost incurred by the trader due to various procedural measures and malpractices on part of some government authorities.

4.2 Description of variables used in questionnaire

The following are the variables which have been analyzed in this section. Each variable has been picked up with a purpose which has been explained below.

4.2.1 Nature of Business

This is an important variable as it covers all the businesses related to trade. Almost all the businesses have been covered under this head. The reason behind having so many businesses representative in the questionnaire is that it brings diversity to the data and helps in understanding the differences in the business practices across the type of trades. Main lines included under this are the following:

Manufacturing/processing exporter

Exporter is a party which is responsible for exports of goods. In this head, we have considered only those exporters who are either manufacturer exporter or processing exporter. This means that the exporter either manufactures the product himself or he processes the semi finished part and then exports it. There is some value addition which takes place at the site of exporter.

Trading/ merchant exporter

This exporter does not add value to the raw materials. He just indulges in the trading part of the products. They either get the manufacturing done by someone else or they serve as a specialized service firm which provides export services. Even a manufacturer who has not ventured out yet if he wants to export can also contact these exporters and they do the same on margin basis. Also it is profitable for them due to their expertise in the area and also the scale of operations in which they deal in. The export merchant usually specializes in a particular line of products and/or in a particular geographical market area. Sometimes it sells the goods with the original supplier's labels or puts its own label.

Export Agent

The function of the export agent is to appraise the export potential of the local manufacturer's products, advertise them abroad, look for foreign buyers, obtain

export orders, and advise on, or arrange for, the documentation, shipping and insurance once a sale has been made.

Importer (actual user)

This is the party responsible for importing goods. Under this head only those importer have been taken who import for their own use. They may be some importer who import raw material and then do the value addition to the product at their site and sell it in the domestic market.

Importer (trader)

Importers solely import goods for resale to other companies in the distribution chain and take legal possession of goods. Importers/distributors take legal possession of goods and pay exporters. They are usually obliged under the terms of their agreement with exporters to carry stocks and to provide after sales service where necessary.

Freight forwarder

They act as a very important arm to the trade business so it was imperative to include freight forwarders in the questionnaire. A freight forwarder organizes the safe, efficient movement of goods on behalf of an exporter, importer or another company or person and sometimes deals with packing and storage. Taking into account the type of goods and the customers' delivery requirements, freight forwarders arrange the best means of transport, using the services of shipping lines, airlines or road and rail freight operators. In some cases, the freight forwarding company itself provides the service.

An international freight forwarder is an agent for the exporter in moving cargo to an overseas destination. These agents are familiar with the import rules and regulations of foreign countries, the export regulations of the Indian government, the methods of shipping, and the documents related to foreign trade. Export freight forwarders are licensed by the International Air Transport Association (IATA) to handle air freight and the Federal Maritime Commission to handle ocean freight.

Freight forwarders assist exporters in preparing price quotations by advising on freight costs, port charges, consular fees, costs of special documentation, insurance costs, and their handling fees. They recommend the packing methods that will protect the merchandise during transit or can arrange to have the merchandise packed at the port or containerized. If the exporter prefers, freight forwarders can reserve the necessary space on a vessel, aircraft, train, or truck. The cost for their services is a legitimate export cost that should be included in the price charged to the customer

Clearing agent

They provide following services and form a very important part of the trade business

- Air freight forwarders
- Cargo clearance services
- International freight forwarders
- Air freight forwarding
- Freight forwarding service

4.2.2 Trade profiling

Trade profiling of the business has been done. It is based upon the two components. Firstly the profiling is done for products. Here top three products under each heading have been taken. The next profiling is based upon the markets. It takes into account top three markets for trade.

4.2.2.1 Trade profile product wise

Product wise profiling is done to understand the basket of products which is being handled mostly. Also it helps in deciding whether the businesses are single product oriented or well diversified. This particular profiling asks the business which is happening through CIS countries only be it import or export. Firstly it asks about the total exports which has subheading of direct and the indirect exporting. The same heads are repeated for the imports. Heads like direct and indirect exports basically help in understanding the mode of export as in what is preferred more in the trading community. The definitions of direct and indirect exports are under:

Direct exporting: It means selling goods to foreign buyers without the intervention of an intermediary. Direct export of its products offers a company greater control over the entire export transaction and entitles them to greater benefits. However, these profits are accompanied by a cost – the company needs to invest far greater resources and put in a lot more efforts.

Indirect exporting: It means selling goods to foreign buyers through intermediaries such as export agents, export merchants or buying houses. It requires less marketing investment, but loses substantial control over the marketing process.

4.2.2.2 Trade profile market wise

This particular variable tries to get the market concentration or the preferred locations for trade amongst businesses. Here top three markets are to be specified by each person and also thereafter they have to tell how much business is generated through CIS countries (in percentage terms). This helps in knowing the current situation of trade with CIS countries

4.2.3 Code/description of export/import item

This is very important variable to understand as it points out how well versed the Indian businesses are in dealing with the global practices. It is important for them to understand these codes and descriptions of products but mostly the businesses are small and family run. So they don't have expertise to deal with such things. Also the subsequent questions on this variable clearly give an option to describe the kind of problems which are faced. Also the nature of the problems can be understood with its help and solutions for the same can be worked out. This variable also points out the gaps in trade which are not yet resolved because of these stringent laws of codes and description. These codes and description form a very important part when a goods is exported or imported. Sometimes difficulty in understanding the codes as in to which level the code should be applied or in some cases not finding appropriate code might become difficulty in trading. Also item descriptions are generally limited to 120 characters.

4.2.4 Source of Information regarding trade

This variable is important in the sense how much efforts are put in to smoothen up the supply chain. As information forms a very important part of any supply chain this variable becomes very important and shows the activeness of the businesses to achieve the information. The following options have been provided under this variable:

1. Indian government
2. CIS government
3. Indian Chambers of Commerce
4. CIS chambers of Commerce
5. Indian newspapers
6. CIS newspapers
7. Indian government website
8. CIS government website
9. Private website
10. CIS trader
11. Indian trader

Apart from the activeness of businesses it also shows the effort on part of India and CIS as in how serious are they in disseminating the information as it is very critical tool in present scenario where both the regions want high trade volumes.

4.2.5 Customs formalities for exports

Goods meant for exportation out of the country attract certain customs formalities. For clearance of the goods for export, the exporter or his agents have to undertake the following formalities:

1. Registration
2. Registration in the case of export under Export Promotion Schemes
3. Processing of Shipping Bill – Non-EDI
4. Processing of Shipping Bill –EDI
5. System Appraisal of Shipping Bills
6. Status of Shipping Bill

7. Customs Examination of Export Cargo
8. Variation between the Declaration & Physical Examination
9. Stuffing / Loading of Goods in Containers
10. Drawal of Sample
11. Amendments
12. Export of Goods under Claim for Drawback
13. Generation of Shipping Bills

4.2.6 Customs formalities for imports

Goods imported in an aircraft /a vessel attracts customs duty and customs clearance formalities of the landed goods have to be followed by the importers. For the goods which are offloaded, the importers have the option to clear the goods for home consumption after payment of the duties levied or to clear them for warehousing without immediate payment of the duties leviable in terms of the warehousing provisions built in the Customs Act. Every importer is required to file, in terms of the Section 46 of the Customs Act, 1962, an entry (which is called Bill of Entry) for home consumption or warehousing in the form as prescribed by regulations.

1. Under Manual Procedure
2. Under EDI
3. Assessment
4. EDI Assessment
5. Examination of goods
6. Green Channel Facility
7. Payment of duty
8. Amendment of Bill of entry
9. Prior entry for Bill of entry
10. Specialised Schemes
11. Bill of entry for Bond warehousing
12. Abandoning of Imported Goods
13. Customs Clearance for food items, live stock products, plant and plant materials etc.

14. DGFT Notification No. 44 (RE-2000)/1997-2002, dated 24-11-2000
15. DGFT Notification No. 3(RE-2001)/1997-2002, dated 31-3-2001 The PFS Order, 1989
16. The Livestock Importation Act, 1898
17. Customs Clearance Procedure for Food Items
18. Customs Clearance procedure for Livestock Products
19. Plant/Plant Materials for Sowing/Planting/Propagation/Consumption

4.2.7 Inspection

The export inspection agency conducts pre-shipment inspection of the goods notified for compulsory pre-shipment inspection of export goods. The agency issues a document called certificate of inspection. In case the goods are not subject to inspection by the export inspection agency or the buyer does not require inspection through the agency then the exporter has to get the inspection done through private inspection agency or through any other arrangement for inspection agreed between the exporter and the importer.

Example of inspection for dried fish maws is given in Appendix 5. The example clears the intricacies involved with inspection procedures. Many a times it may happen that for one product inspection by Indian agencies is accepted in CIS countries and for the other it is not. These kinds of issues create hurdles in movement of product and create loose points in the supply chain. So the study of such variables becomes important and relevant.

4.2.8 Modes of transport

This variable has been covered in great details in the questionnaire. The reason behind this was there has been an effort put in to find a new land route from India to CIS countries. Right now for most of the trade one or part of route is air and sea. These modes become very expensive. As the products being targeted are non-branded so the pricing is also somewhat modest as the brand value is not attached to the product. This way taking the air or sea route becomes very high. Another thing is that the insurance cost is very high in air and sea routes.

Benefits of using land routes:

With the new WTO regime it can be expected that subsequently the land route between the countries will open up and will become basis for healthy relations between the countries. This would also make it possible for cheaper mode of transport and convenient if coupled with the latest technologies like GPRS systems.

Also it takes longer to get the goods cleared at the sea ports and again the administrative loop holes come into picture. Customs formalities are also not being attracted by the land route. This saves time and money both. Also the issue of dealing with custom authorities does not come into picture.

4.2.9 Modes of payment and Disputed payment

A detailed explanation of the payment methods and disputed payments has been incorporated in a separate chapter.

Profile of the respondents and analysis of the data gathered are mainly offered in Chapter 7.

CHAPTER - 5

5 SUPPLY CHAIN IN CIS COUNTRIES WITH RESPECT TO TRANSPORTATION

In this chapter, an analysis is offered on the existing transportation channels from India to CIS countries. Most of the trade is multi-modal in nature. Sea route from Mumbai to Bandar Abbas features in most of the trades. Other rail road transportation facilities through Europe and Central Asia, Russian Far East, Baltic Republics, Caspian Sea and China Route are discussed. We have also discussed the existing trade route and proposed 2 new land routes.

5.1 Supply chain components with respect to CIS

Most countries in the CIS region share some common economic characteristics, such as difficult terrain and lack of direct access to the sea, underdeveloped transport infrastructure, and a largely commodity-oriented structure of exports. Other elements of supply chain are discussed below (Prothero, 1999):

Custom Clearance: Customs have a key function in any country's economy. They have a preventive function to stop things coming in that customer do not want. They have a tax collecting function to collect revenue, to which the government is entitled, import duty, taxes, and so on. But those procedures and regulations need to be simple and clear so that every trader understands them. A great deal of work has been done in the industry to simplify customs procedures, simplify documents, simplify entry and form filling, and speed passing vehicles across borders, pass trains across borders, and pass passengers across borders. Issues of harmonization of customs procedures between the countries are issues customer will have to face. Custom clearance in most of the countries in CIS region is not streamlined and takes lots of time

Security: Every country needs security on its borders. Security means checking and controlling people and traffic whether it is at the airport or at the border point. Government policy should combine an effective order of security with a freedom of internal travel. Once a truck has passed the border and passed the security, it should

then be essentially free to go to its destination whether it is inside that country or across it, or into a third country. Some of the CIS countries share border with Afghanistan and Pakistan. So there is always a security concern attached to the trade.

Border crossing procedures: This is tied up with the previous two elements. But it also involves provision of proper facilities for trucks and for passengers. The border crossing procedures should be as simple and as clearly defined as possible. For encouraging economic cooperation it is necessary to encourage trade. Border crossing procedures have to make simpler for the CIS countries so that goods from India and other countries can easily come through the CIS countries.

Vendor management: Freight forwarding, warehousing and other logistics-related services have been privatized almost entirely in these countries. Compared to international standards the supply of these services is poor, and the quality of the services is often low. The freight forwarding industry's own associations are weak, if they exist at all. In Kyrgyz Republic, Turkmenistan and Tajikistan, for example, FIATA recognized associations do not exist. Forwarders lack international experience and the sector has not yet grown mature. This leads to forwarding companies that do not take their responsibility seriously and fail to act when cargoes are lost or damaged. Only a few forwarders are able to offer a full and global service to their clients. As a result, shippers have to enter into a contract with forwarders in each country along the transport corridor. This causes unclear responsibilities and liabilities. Besides, advance payment is often required. Due to lack of competition among freight forwarders, their fees are often higher in the CIS countries than in a Western European country. The legal framework is also weak and international standards are not yet incorporated. Many of the international logistics companies complain that reliable and cost-efficient logistics solutions are difficult to arrange due to unpredictable public administration procedures and often corrupt practices.

5.2 Transportation

Much of the wider Central Asia region faces the predicament of being landlocked, resulting in high transportation costs, reduced competition, and lower investment.

Many studies demonstrate that being landlocked has a negative impact on trade and economic development. Moreover, the negative effects of being landlocked are exacerbated by the number of borders that need to be crossed to reach major international seaports, as neighboring countries collect transit rents, and lack of harmonized trade and transit policies raises trade costs.

Improved transportation links would have important economic consequences for the region. Availability of a reliable and reasonably timely railway link out of Central Asia to compete with Russia's existing network would spur regional diversification of trade in the post-Soviet Central Asian republics. Faster road and air transportation could play a crucial role in diversification of the commodity composition of exports, increasing the region's competitiveness for time-sensitive goods, such as agro-processing, industrial intermediates, and light consumer goods. Furthermore, the reconstruction of the road network in Afghanistan will facilitate other regional initiatives such as the construction of pipelines and electricity transmission lines.

Roads system of CIS

Central Asian Road links basically connect each other. In Kyrgyzstan, there is 33888 km road (Vosoughi, Shahmansori, 2008) that is connected to Uzbekistan through Tajikistan and linked to Russian Road system in North. Tajikistan road networks length is 29900km, out of which 8500km (Vosoughi, Shahmansori, 2008) has been built in mountainous area. Being in a freezing zone during winter this stretch of road remains unusable at least in one season. Building of roads in Tajikistan is very difficult because of natural barriers. But without its road network, it cannot get connected to other parts of Central Asia. Iran is building Dushanbe-Herat highway, after completion it will connect Iran to Tajikistan and Afghanistan through land route. Uzbekistan is one of the two land locked countries where for reaching the sea, two territories need to be crossed. Lack of coasts in this country force them to do its major trade and transportation through rail and road lines.

Uzbekistan government is presently building a transit route via Afghanistan to Iran for transporting goods. At present goods and passenger pass through Iranian territory. Uzbekistan approaches Bandar Abbas port by passing Sarakhs in Iran-

Turkmenistan border southern Khorasan, Kerman and finally Hormozgan province. This direction enables Uzbekistan to reach aimed markets. Uzbekistan is also seeking Afghanistan in the case of security and stability of Afghanistan. They are thinking about connecting Uzbek rail network to that of the Iran via Afghanistan territory, if such work done Termez- Mazarsharif-Herat path will be more suitable for Uzbekistan.

Turkmenistan in compare with Tajikistan, Kyrgyzstan and Uzbekistan has better situation from road point of view. Turkmenistan road's length is about 50023km, this country doing some part of its transportation through sea. Turkmenistan trying to optimize its transportation network between Eshgeabad-Mary and Eshgabad-Turkemnbashi and also building highway which passing Amudarya through a bridge near Charjo.

After the disintegration of Soviet Union, the amount of Central Asian trade with CIS states and their foreign trade has increased. Main reason for increase was production and export of raw materials. In this regards, reaching to the market for the sale of raw material and goods of Central Asian countries became important. For obtaining these goals Iranian routs were perceived as the most secure, cheapest and nearest route. Iran is located on the Silk Route which is said to be about 2000 years old. Presently Silk Road is synonymous of economic and political development combined with oil and gas and raw material trade.

5.2.1 Existing Trade Logistics

The existing land transport infrastructure within the Central Asia sub region is relatively well developed. Road and rail connections link all capitals and economically important areas, thus there are no major linkage problems. Crossing the borders by transports, particularly between the Commonwealth of Independent States (CIS) member countries reportedly presents no serious difficulty as there are appropriate agreements in place. However, in terms of international transport needs, the transport infrastructure in the Central Asia Sub region has certain limitations. Firstly, its outlets have been developed (due to a prevailing orientation in the past) mostly to the North, and secondly roads as well as railways (despite servicing well

the domestic transport needs) are to meet the new requirements which land transport is facing nowadays in connection with the new political and economical orientation of the all Central Asia Republics (Kazakhstan, Uzbekistan, Tajikistan, Turkmenistan, Kyrgyzstan i.e., CAR) manifested in their opening to the rest of the world.

Goods between India and CIS move only by sea and air because there is hardly any road connectivity between these two regions. The sea route between Mumbai and Bandar Abbas (Iran) is operating unhindered and has been the only consistent operational link. Since there are only two main operational routes for goods to be transported to and from CIS, traders are faced with a very limited choice of route. For a trader based in Mumbai, trading by sea from Mumbai to Bandar Abbas is the most feasible route. Goods are also sourced from other cities in Maharashtra and Gujarat. Traders who are sourcing their goods from Amritsar or from other cities located in Punjab, Delhi, Haryana, Rajasthan Jammu & Kashmir may use land routes between India and CIS if there is a land route exist.

Due to non existence of land route, exporters are forced to use the sea route even if they are located in far off place. Traders from northern part of India used land-cum-sea route. Thus goods are first transported by the land route to Mumbai and then to CIS by Sea.

A detail route flowchart with relevant information is produced in Chapter 7 (flowchart 7.1, 7.2 & 7.3) developed with the feedbacks received from the survey conducted among traders. Three representative items (meat, drugs & pharmaceutical, and aluminum sheets) originating from different regions of India have been taken for illustration.

5.2.2 Rail -Road Transportation Facility to CIS

Indo-CIS trade primarily moved through the Black Sea ports of Odessa, Ilyichevsk and Kherson. Since all the major Black Sea ports were located in Ukraine and traffic for Central Asia Republics had to transits through other states as well, the cumulative factors of increase in rail freight and transit delays began to make transport through the Black Sea route uneconomical. The international trade cargo movement through the ports of Bandar Abbas and Bandar Khomeini in the Persian

Gulf and by the land route across Iran is viable. The goods/containers did initially cover the land route by road, till such time that Bandar Abbas and Savakhs (on Turkmenistan border) were connected by rail. Transiting through Iran, the goods not only move faster but the overall distance has been reduced to virtually half of Black Sea route. The rail route having been established the movement is further facilitated (Khanna, 1997).

In 1997, Maj. Gen (Retd) Khanna conducted a study on movement of transit trade via various CIS ports to rest of the CIS countries & CARs. Major findings of the study were as under:

a. Europe and Central Asia

Black Sea ports are having constant berthing problems, and due to congestion, the shipment gets delayed whereas St. Petersburg allows only containerized traffic and there is no provision for movement of bulk cargo. Novorossiysk is still in the process of development, hence still not viable (Map 5.1).

Map 5.1: Transit trade via various CIS ports to Europe and Central Asia

b. Russian Far East

This route through (Nakhodka and Vladivostok ports), due to large distance between CARs & Far East, is also not economical to Indian exporters (Map 5.2).

c. Baltic Republics

The well-developed port of Riga in Latvia falls in this region (Map 5.2). The Baltic States are developing other ports like Klaipeda in Lithuania and Tallinn in Estonia. These ports have a disadvantage of long distance from Indian ports, resulting in high tariffs and longer transit time.

Map 5.2: Transit trade through Nakhodka and Vladivostok ports

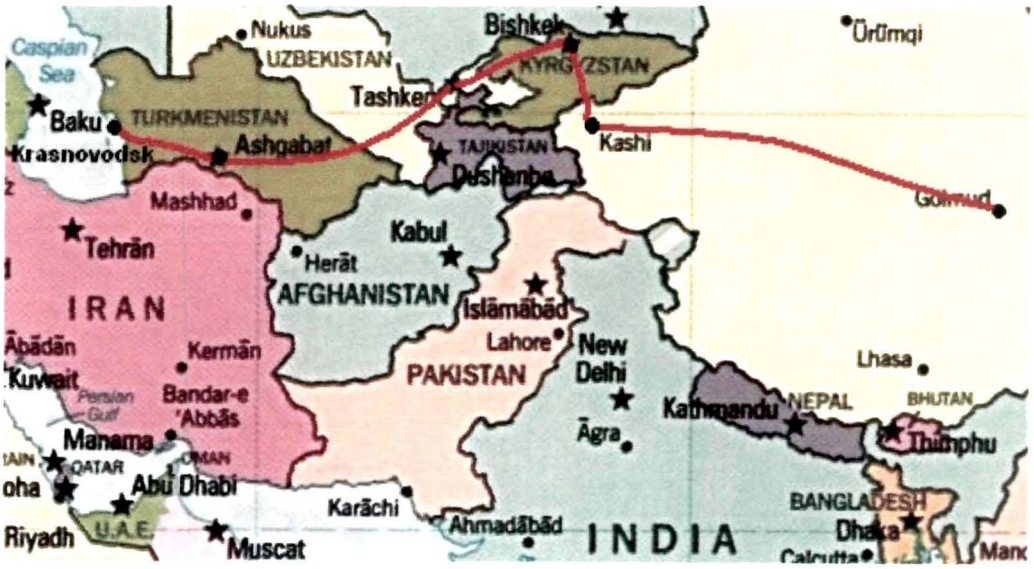
d. Caspian Sea

The Republics of Central Asia are linked by Rail to the Turkmenistan port of Krasnovodsk on the Caspian Sea. From here shipping is available through the Volga River to the Black Sea and on to the Mediterranean. This route is however not an all weather option as it closes down in winter (Map 5.3).

e. China Route

So far as China is concerned, a rail route linking Kazakhstan and China through Xinjiang existed during the peak of Sino-Soviet friendship but was closed in 1961. This route is again operational and the Central Asian and Chinese railway systems have been connected through a rail link between Kazakhstan and Urumqui city in China through the Altau Pass in North Xinjiang, since September 1992 (Map 5.3). This connects the entire CIS Railway Network to the Chinese Railway Systems right up to Beijing. Since the railway track between Tedzen in Twkmnistan and Mashad in Iran is linked at Sarakhs, a rail link is available right from China through Central Asia and then into Europe . Therefore, in comparison to the other routes to CAR i.e. via Black Sea ports and via Europe, the route via Iran is not only shorter in terms of distance and time but will be the most efficient cost effective route.

Map 5.3: Trade through China route to Caspian Sea



5.2.3 Rail-Road link to CIS

Long distance in transits and high freight charges due to location of CAR countries (Kazakhstan, Uzbekistan, Tajikistan, Turkmenistan, Kyrgyzstan) being land-locked has been an obstacle in improvement of trade between India and CAR countries. The established land routes through Bandar Abbas is considered more economical in terms or saving of time, safety of cargo and competitive tariff to make it more attractive for the exporters and importers in India & CAR countries.

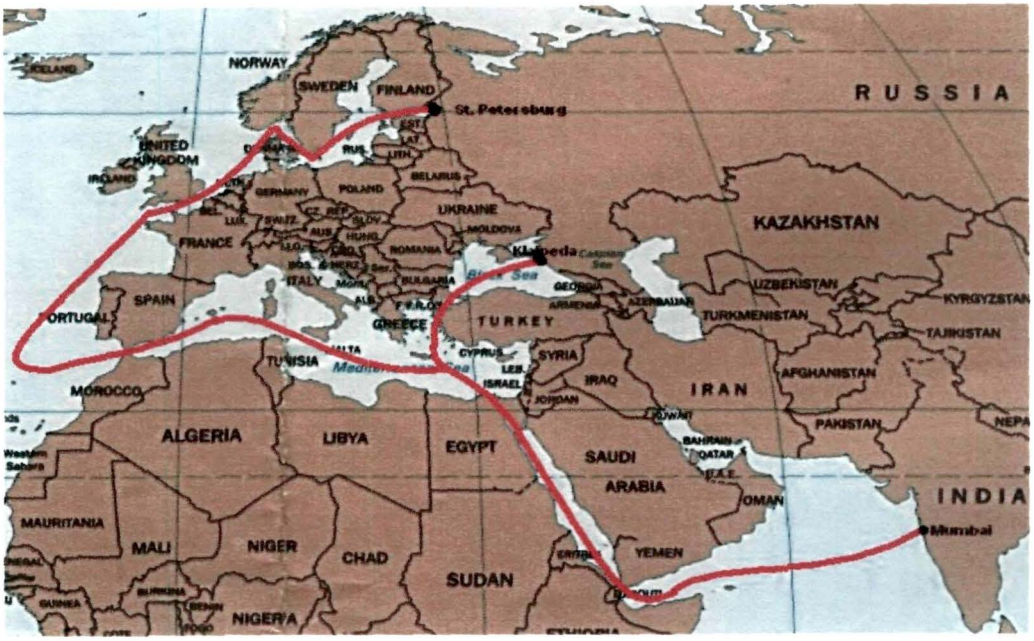
In section below the existing sea route and multi-modal route (North-South Corridor) are analysed and two new land routes are proposed.

5.3 Existing Routes

5.3.1 Route via Suez Canal and Mediterranean

The Suez Canal is an artificial sea-level waterway running north to south across the Isthmus of Suez in Egypt to connect the Mediterranean Sea and the Red Sea. The canal separates the African continent from Asia, and it provides the shortest maritime route between CIS and the lands lying around the Indian and western Pacific oceans. It is one of the world's most heavily used shipping lanes. This route allows the transportation of goods from India to CIS without navigation around Africa (Map 5.4). Transport of goods from India to CIS countries takes around 35 days via the Suez Canal/Mediterranean route (Business Line, 2006). The Suez Canal can accommodate huge vessels of 500 meters long, 70 meters wide and a draught of 70 feet. The present capacity of the Suez Canal has reached more than 25000 vessels annually (Suez Canal Authority, 2007). Suez Canal is artificial waterway in Egypt, connecting the Mediterranean Sea to Gulf of Suez, and then to the Red Sea. The canal is 163 km long, and its width varies, and 60 meters at its narrowest (looklex.com). The canal is extensively used by modern ships, as it is the fastest crossing from the Atlantic Ocean to the Indian Ocean.

Map 5.4: Existing route via Suez Canal and Mediterranean



Source: http://www.ciese.org/curriculum/boilproj/images/Reference%20Material_world_pol98.jpg

5.3.2 North-South Corridor:

New Delhi, Moscow and Teheran signed an agreement in St. Petersburg on September 12, 2000 for sending Indian cargo to Russia through a 'North-South Corridor'. According to the arrangement Indian goods will be sent from Mumbai or Okha to the Iranian hub of Bandar Abbas via the Strait of Hormuz in the Persian Gulf (Map 5.5). From here, containers be reloaded on trucks or railway wagons and dispatched to the Iranian port of Anzali on the Caspian Sea. After trans-shipment at Anzali, goods will be loaded on ships and taken to the Russian port of Astrakhan. Astrakhan, in the past, has been the springboard for expanding Tsarist Russia's influence towards Central Asia (instc.org).

Map 5.5: Existing route- North-South Corridor

Source: www.instc.org/Map/Map4.asp

The land route from Astrakhan to the Russian mainland is straightforward and containers from here can be sent either to Moscow or St. Petersburg.

Advantages of the route

1. Transportation of Indian goods to Russia via Bandar Abbas and a designated port in the Caspian Sea will reduce transportation costs by 20-30 per cent and the transportation time by nearly 15 days (Parthasarthy, 2002).

2. Compared with the 16,129-kilometer route through the Suez Canal and the Mediterranean Sea that is currently used, the North-South Corridor is just 6,245km long. It will cut transport time by at least 10-12 days and transport costs by about 15-20 percent (Ramachandran, 2002).

Disadvantages to the route

Potential of the transport corridor will be determined by the funds available to upgrade the rail and road networks and other related infrastructure of India, Russia

and Iran. There is also the security issue. The North-South corridor runs through the politically unstable Caucasus region. Few will be willing to send cargo through conflict-ridden Chechnya or Daghestan. Besides, many Western countries, given their hatred for Tehran, will be reluctant to opt for a route that runs through Iran (Ramachandran, 2002).

5.4 Proposed Routes

5.4.1 India-China-Kyrgyzstan Route: China is connected by road to Kyrgyzstan through the Xinjiang province. India could use this road by constructing a link road in Ladakh joining the Tibet-Xinjiang road (TibetTravel.info, 2007). Ladakh is already linked by road with Himachal Pradesh (Map 5.6). Therefore, connectivity is what India and the CIS should focus on if existing relations need to be strengthened.

This route is consisting of two sections beyond Ladakh.

Map 5.6: India-China-Kyrgyzstan Route

a. Xinjiang-Tibet highway (TibetTravel.info, 2007)**:** It is also called the national highway 219, with a total distance of 2,743 km. It is the highway with the highest altitude in the world. The highway starts from Yecheng, a city in southern Xinjiang Uygur Autonomous Region, passes by Gar County in Tibet and reaches Shiquanhe town, which is located in Ngari prefecture, Tibet. Then the highway winds south to Burang County, where China borders India and Nepal. The highway turns east to converge with the China-Nepal Highway, and then extends to Xigaze and finally stretches into Lhasa. The highway winds its way among several mountains, five of which soaring more than 5000 meters (16400 feet) high above the sea level.

b. Kashgar-Torugart Pass –Bishkek Route (advantour.com)**:** The road is mainly asphalt – it being the main road between Bishkek and Kashgar. There is one stretch before Naryn which is gravel – over the Dolon Pass – but even this is quite good. However, the road surface can be uneven which can make for a bit of bumping around. The road heads east from Bishkek along the Chui valley with mountains in the distance on the right hand side. There are two possibilities - the old road, which passes through a number of villages - and the new road - built sometime in the 1960s, which bypasses the many villages. It is dual carriageway and runs parallel to the Chu River, which forms the border with Kazakhstan for much of its length. Distance from Kashgar to Bishkek is 730km (Table 5.1).

Table 5.1: Distance from New Delhi to Bishkek

Route	Distance
New Delhi – Manali	585 km
Manali – Ladakh	475 km
Ladakh – Kashgar	800 km
Kashgar – Torugart Pass	180 km
Torugart Pass – Bishkek	550 km
TOTAL DISTANCE	**2590 km**

Source: Dwivedi, 2007, go2india.in, advantour.com

Poor Infrastructure at Torugart Pass (Asian Development Bank, 2008): Road conditions are poor and customs infrastructure and facilities at the Torugart border post do not comply with international standards and need modernization. Border crossing is often reported to be delayed due to inadequate customs facilities and complicated procedures. Travelers are required to go through clearance at the border by several government agencies, including those responsible for border control, customs, sanitary, and transport. This results in the prolonged border crossing and travel time from Bishkek to Kashi takes up to 4 days. This situation constitutes a major barrier to regional trade. Improved roads and customs infrastructure, as well as efficient cross - border procedures - such as a single-window 6 services and automated clearance of border traffic- would help remove this barrier to ensure free flows of traffic and boost trade and commerce.

Asian Development Bank is the lead partner in developing the transport sector in the Kyrgyz Republic. The project described below is included in the Joint Country Support Strategy for the Kyrgyz Republic (2007-2010). It will complement ADB-led investment and policy dialogue in the country and complete a key transport corridor connecting Bishkek, the capital of the Kyrgyz Republic, to Kashi in the People's Republic of China. The estimated completion date is 31st March 2012.

Bishkek Torugart Road Project (Asian Development Bank, 2008):

> **Project Description:** The 500 kilometer (km) Bishkek–Torugart road is part of the Central Asia Regional Economic Cooperation (CAREC) Corridor 1 linking the Kyrgyz Republic with the People's Republic of China (PRC) and other Central Asian countries. The Torugart post is a major border control and customs facility between the Kyrgyz Republic and the PRC. The road condition is poor, border-crossing facilities and procedures are outdated and inefficient, and they obstruct international traffic and trade. Improved road and customs infrastructure will remove the obstruction and open up this corridor for wider regional trade and economic cooperation. It will reduce travel and transit times from the current 3–4 days to 2 days. Improvement of

the Bishkek–Torugart road will be implemented in three phases and includes (i) improving 488 km of the Bishkek– Torugart road in the Kyrgyz Republic and the 20 km Bishkek bypass road, (ii) modernizing infrastructure and facilities at the Kyrgyz Republic–PRC border crossing at Torugart, and (iii) policy and institutional support in the road sub sector.

Project benefits: By improving the Bishkek–Torugart road, the Project will substantially reduce the existing obstruction to trade and foster regional economic cooperation. The entire region will benefit from the Project, while the project area will gain through economic development and increased access to markets and social services. Improving the project road will reduce transport costs, contribute to commercial and industrial development, develop tourism, and generate employment opportunities.

Traffic Forecast: International traffic is minimal at present but it is expected to grow rapidly after improvement of the project road. Based on an analysis of trade patterns between the Kyrgyz Republic and the PRC, international generated traffic is projected to grow from the current 80 trucks per day to over 200 trucks per day by 2015. Total international traffic is projected to reach 1,500 vehicles per day by 2032. Other international traffic may be diverted from rail or other modes of transport, or other CAREC transport corridors.

Roads in Kyrgyzstan (Vosoughi, Shahmansori, 2008):

Roads dominate the transport sector of the Kyrgyz Republic, accounting for about 94% of freight tonnage movements and almost all passenger traffic. The railway network consists of two separate branch lines, one linking the north of the country to the Kazakhstan's rail system and another linking the south to Uzbekistan's rail system, with no direct link between the two. Air transport accounts for less than 1% of total movements, and these are mainly between Bishkek and Osh. Water transport is confined to a few vessels on Lake Issyk-Kul.

The road network in the Kyrgyz Republic covers all seven oblasts (provinces), and provides connections to remote communities and links to neighboring countries. The

road network comprises 34,720 kilometers (km) of roads, 18,810 km of which are public roads and 15,910 km of which are urban, rural, agricultural, industrial, and other roads. The road network of the Kyrgyz Republic carries about 95% of the country's passenger and freight traffic. The total length of international roads is 4,163 km, national roads total 5,678 km, and local roads total 8,969 km; the length of paved public roads is 7,228 km, comprising 11 km of cement-concrete roads, 4,969 km of asphalt roads, and 2,248 km of bitumen treated gravel roads. The total length of gravel road is 9,961 km, and there is 1,621 km of unpaved roads (Table 5.2).

Table: 5.2: Summary of the Road Network

By Class	**International**	**National**	**Local**	**Total**
Length (km)	4163	5578	8969	18810
% of total	22	30	48	100
By Type	**Paved**	**Gravel**	**Earth Road**	**Total**
Length (km)	7225	9961	1621	16610
% of total	38	53	9	100

Source: Ministry of Transport Communications of the Kyrgyz Republic

Vehicle fleet in Kyrgyzstan: The motorization rate in the Kyrgyz Republic is low by international standards. The vehicle fleet numbered about 271,000 in 2007, including around 229,000 cars and buses, and 41,700 trucks (Table 5.3). This was equivalent to 54 vehicles per 1,000 people. The vehicle fleet has recently grown rapidly at an annual rate of 5%. This trend is projected to gain further momentum with continued strong economic growth in the country. The rapid increase in vehicle fleet size will require development or improvement of road infrastructure.

Table 5.3: Composition of Vehicles in Kyrgyz Republic

Vehicle Type	**1992**	**1995**	**2000**	**2005**	**2006**	**2007**
Cars/buses	176,643	200,043	191,423	202,520	220,359	229,644
Trucks	77,845	68,394	54,638	42,679	41,566	41,716

Source: Ministry of Transport and Communications of the Kyrgyz Republic.

Building roads in Kyrgyzstan is difficult and expensive: In Kyrgyzstan which is a mountainous country, building roads is very difficult task and makes it very expensive. Roads connected to Shimkent, Namangan, Jambyl and Almaty in Kazakhstan, Namangan, Dushanbe in Tajikistan, Tashkent and Furghane in Uzbekistan. Some parts are also connected to Kashgar in China through Bishkek road. It is worth mentioning that Iran is helping these countries for road development. Some projects that Iranian companies are doing in Kyrgyzstan are as follows (Vosoughi, Shahmansori, 2008):

1 Repairing and renovation of some part of Abad-Azgen and Madaniat 52km financed by Islamic Development Bank.
2 Some part of Madaniat Road (10km)
3 Second part of Jalalabad-Zgen road
4 Third part of Jalalabad-Azgen (16km)
5 Fourth part of Jalalabad-Azgen in next two mounts will ready to use
6 Mending of Jalalabad street financed by World Bank
7 Big project of kara Darya bridge and leading roads to it with 180km length and 20 meter wide, financed by Islamic Development Bank 85% of projects has been completed.

Main advantage of the India-China-Kyrgyzstan route is that it is almost 60% shorter as compared to the multi-modal route used by traders via Bandar Abbas. However there are some hindrances in using it. For example, the link road from Ladakh to Kashgar on this route is under Chinese military occupation and it may be difficult to get permission to use it. Also, the existing road from Torugart Pass to Bishkek is not in good condition. It needs lots of improvement to become of international standard. The route is also 10% longer than the India-Pakistan-Afghanistan-Turkmenistan route which we have discussed later in this chapter.

5.4.2 India-Pakistan-Afghanistan-Turkmenistan Route: The shortest route from India to the Central Asian republics is through Pakistan and Afghanistan (Table 5.4). Goods from Delhi can be transported from Lahore, Peshawar, and Herat to reach Turkmenistan (Map 5.7).

Map 5.7: India- Pakistan- Afghanistan-Turkmenistan route

Transport and logistics in Afghanistan

Since Afghanistan is a land bridge between many countries, the main trade routes are highways and roads that link various areas of the country with neighboring states. The main highway artery running through Afghanistan is the ring highway. This road links Kabul to Kandahar in the south, which links to Herat in the west, to Mazar-e-Sharif in the north, and then back to Kabul. The first paving of the Kabul to Kandahar road was completed by USAID in December 2003 and multilateral plans to rehabilitate and complete the ring road include Japan, the Asian Development Bank, Saudi Arabia, and Iran (Nawabi, 2004).

Afghanistan offers new and expanding trade routes. The improvement of its transport infrastructure supports Afghanistan's trade nexus, both in country and across its borders. It is estimated that 60% of overland transportation comes to or from Pakistan, 30% to or from Iran, and a combined 10% through borders with the Central Asian republics (Shah, 2003). To the north, in Turkmenistan, Uzbekistan and Tajikistan, goods and commodities flow on main transit routes south through Afghanistan to the ports of Bandar Abbas and Chah Bahar in Iran, and Gwadar and Karachi in Pakistan. An important demand in the logistics sector is the provision of cold transportation and storage facilities such as cold rooms and refrigerated trucks and containers. Some 20- 40% of post-harvest horticulture products are wasted because of poor packaging. In cold storage transportation, there are currently less than 50 refrigerated trucks available around the country (Shah, 2003).

Barriers to trade in Afghanistan

Security issues often obstruct and distort trade. Afghanistan's *Doing Business* overall rank is near the bottom at 159th (out of 178), although it is much higher (24th) in the *Starting a Business* subcategory. As expected in a politically unstable country racked by insurgency, its governance indicators are very poor (Worldbank, 2008). Afghanistan is ranked last (out of 150 countries) on the 2006 Logistics Performance Index and with high average per container export costs and very long processing times, its *Doing Business—Trading Across Borders* subcategory rank is also near the bottom at 172nd. A number of problems hinder trade and tend to keep it in unofficial channels. As is generally incorporated in the aforementioned indicators, these problems include (i) severe weaknesses in the business climate and de facto regulatory environment for trade, reflecting among other shortcomings a lack of capacity in the concerned government agencies; (ii) transport and other infrastructural constraints (although rehabilitation of some of the major highways has greatly improved the situation on some routes); (iii) lack of key support services, such as commercial insurance and freight forwarding; (iv) restrictions against use of foreign trucks (in Afghanistan as well as in its regional trading partners); (v) lack of access of a overland trade route to India through Pakistan, hindering trade with

South Asia's largest economy; (vi) cumbersome customs clearance in some of the more problematic border areas (although, with support from the World Bank and other external partners, Afghanistan has embarked on a major program to strengthen and reform its customs administration) (Worldbank, 2008).

Transit of goods from India to Afghanistan via Pakistan

A commonly used trading route between Afghanistan and Pakistan is the Kabul to Peshawar highway. Major crossing points in Afghanistan to Pakistan include Torkham, Nowapass, Marawara and Barikot. The largest official trade crossing in the south to Pakistan is at Chaman in Kandahar province (Nawabi, 2006).

Table 5.4: Distance from New Delhi to Ashgabat

Route	Distance
New Delhi – Lahore	530 km
Lahore – Peshawar	436 km
Peshawar – Kabul	236 km
Kabul – Heart	628 km
Herat – Ashgabat	535 km
TOTAL DISTANCE	**2365 km**

Source: lonelyplanet.com, Indian Express. 2003, cybercity-online.net, timeanddate.com

Advantages of the route

1. This is the shortest possible route from India to CIS countries. It is 65% shorter than the existing route and 10% shorter than the proposed route passing through China.

2. All the locations in the proposed route are well connected through roads

Disadvantages to the trade route:

The denial of transit facilities by Pakistan is hampering Indian efforts to help in the economic development and reconstruction of Afghanistan. If the route through Pakistan is opened, less time will be consumed and goods will reach Afghanistan at cheaper costs. India is engaged in a huge reconstruction exercise in Afghanistan worth $650 million in diverse fields and has been asking Pakistan to allow these and other humanitarian supplies to be transported through that country. In the absence of the transit facility, Indian supplies are taken to Bandar Abbas in Iran and transported by road to Afghanistan (Spanta, 2006).

References

Asian Development Bank. (2008). *Proposed Asian Development Fund Grant Kyrgyz Republic: CAREC Transport Corridor 1, (Bishkek–Torugart Road) Project.* Grant No.123, Project No.39674-02. Retrieved October 19, 2008, from http://www.adb.org/Documents/RRPs/KGZ/39674-KGZ-RRP.pdf

Businessline (2002). *Export route to Russia.* Retrieved July 8, 2004 from http://www.thehindubusinessline.com/2002/06/17/stories/2002061700830601.htm

Distance Calculator, Cities Near Afghanistan-Kabul. (n.d). *Current local times and distance from Kabul.* Retrieved October 12, 2008, from http://www.timeanddate.com/worldclock/distances.html?n=113

Distance Calculator, Cities Near Turkmenistan-Ashgabat. (n.d). *Current local times and distance from Ashgabat.* Retrieved October 12, 2008 from http://www.timeanddate.com/worldclock/distances.html?n=387

Distance Map. (n.d). *Approximate Distance in Kilometers Between Main Cities and Towns of Pakistan.* Retrieved February 14, 2008, from http://www.cybercity-online.net/Travel_Maps_of_Pakistan/distance_map.html

Dwivedi, M. (2007). *Ladakh The Hard Way:By Road.* Retrieved January 21, 2008, from http://www.gonomad.com/transports/0511/ladakh.html

Indian Express. (2003, May 26). *Good old DTC buses on Delhi-Lahore road.* New Delhi. Retrieved June 15, 2006 from http://cities.expressindia.com/fullstory.php?newsid=53034

International North-South Transport Corridor. (n.d). Retrieved October 4, 2008, from www.instc.org/

Khanna,J. (1997). *Rail Road Transportation facilities to Central Asian Republics.* ICCCI NEWSLETTER.

Manali Hill station of Himachal Pradesh. (n.d). *Delhi to Manali*. Retrieved June 12, 2008, from http://www.go2india.in/himachal/manali.php

Nawabi, M.A. (2004). *Afghanistan's Trade Routes*. Retrieved October 11, 2006, from http://afghanistan.developmentgateway.org/uploads/media/afghanistan/maria m_nawabi.pdf

Parthasarthy, G. (2002). *The challenges in the Persian Gulf*. Retrieved June 9, 2005, from http://www.rediff.com/news/2002/mar/21gp.htm

Prothero, C. H. (1999). *Policy Issues and investment needs in Transportation.* Publisher: Asian Development Bank. Manila. Retrieved January 11, 2007, from http://www.adb.org/documents/conference/carec/transportation/chap02.pdf

Ramachandran, S. (2002). *India, Iran, Russia map out trade route.* Online Asia Times. Retrieved August 5, 2004 from http://www.atimes.com/ind-pak/df29df02.html

SCA, (2007). *Canal Characteristics & Development projects*. Retrieved September 19, 2007, from http://www.suezcanal.gov.eg/sc.aspx?show=10

Shah, M. S. (2003). *Main Investment Opportunities in Afghanistan.* Afghanistan Investment Support Agency Research and Policy Department. Retrieved April 12, 2007, from http://www.aisa.org.af/investmentopp/Transport.pdf

Spanta. (2006). *Opening transit route will help trade*. India Review. 5. Retrieved February 27, 2007, from http://meakabul.nic.in/ir/2006/09/02ir01.pdf

Suez Canal. (n.d). Retrieved January 9, 2009, from http://looklex.com/e.o/suez_can.htm

Tibet Travel Information. (2007). *Xinjiang-Tibet Highway (Yecheng-Burang).* Retrieved January 30, 2009, from http://www.tibettravel.info/get-to-tibet/xinjiang-tibet-highway.html

Travel Urumqi to Bishkek. (2008). Retrieved June 16, 2008, from http://www.lonelyplanet.com/thorntree/message.jspa?messageID=13747352

Vosoughi, S., Shahmansori, T. (2008). *Cooperation between Iran and Central Asian Countries in Rail and Road Transportation: Opportunities.* Isfahan conference. Retrieved December 22, 2008, from http://www.apef-conf.com/my_documents/vosoughi-mansoori_251.pdf

Volkov, A. (2008). *The road from Bishkek to Torugart.* Retrieved February 2, 2009, from http://www.advantour.com/kyrgyzstan/bishkek-torugart.htm

Worldbank. (2008). *Afghanistan:Trade Brief.* World Trade Indicators 2008 database. Retrived September 16, 2008, from http://info.worldbank.org/etools/wti2008/docs/brief1.pdf

CHAPTER - 6

6 PAYMENT PROCEDURE WITH CIS COUNTRIES

There are several basic methods of receiving payment for products sold abroad. As with domestic sales, a major factor that determines the method of payment is the amount of trust in the buyer's ability and willingness to pay. For sales within a country, if the buyer has good credit, sales are usually made on open account; if not, cash in advance is required. For export sales, these same methods may be used; however, other methods are also often used in international trade. Ranked in order from most secure for the exporter to least secure, the basic methods of payment are:

1. Cash in advance,
2. Letter of credit,
3. Bills for collection (D/P, D/A),
4. Documentary collection or draft,
5. Open account, and
6. Other payment mechanisms, such as consignment sales

Since getting paid in full and on time is of utmost concern to exporters, risk is a major consideration. Many factors make exporting riskier than domestic sales. However, there are also several methods of reducing risks. One of the most important factors in reducing risks is to know what risks actually exist. For that reason, exporters are advised to consult an international banker to determine an acceptable method of payment for each specific transaction.

6.1 Cash in advance (Jain, 2003)

Cash in advance before shipment may seem to be the most desirable method of all, since the shipper is relieved of collection problems and has immediate use of the money if a wire transfer is used. Payment by cheque, even before shipment, may result in a collection delay of four to six weeks and therefore, frustrate the original intention of payment before shipment. On the other hand, advance payment creates cash flow problems and increases risks for the buyer. Thus, cash in advance lacks competitiveness; the buyer may refuse to pay until the merchandise is received.

6.2 Documentary letter of credit and drafts

The buyer may be concerned that the goods may not be sent if the payment is made in advance. To protect the interests of both buyer and seller, documentary letters of credit or drafts are often used. Under these two methods, documents are required to be presented before payment is made. Both letters of credit and drafts may be paid immediately, at sight, or at a later date. Drafts that are to be paid when presented for payment are called sight drafts. Drafts that are to be paid at a later date, which is often after the buyer receives the goods, are called time drafts or date drafts.

6.2.1 Letters of Credit

A letter of credit adds a bank's promise of paying the exporter to that of the foreign buyer when the exporter has complied with all the terms and conditions of the letter of credit. The foreign buyer applies for issuance of a letter of credit to the exporter and therefore is called the applicant; the exporter is called the beneficiary. Often a letter of credit issued by a foreign bank is confirmed by a local bank. This means that the local bank, which is the confirming bank, adds its promise to pay to that of the foreign, or issuing, bank. Letters of credit that are not confirmed are advised through a local bank and are called advised letters of credit. Exporters may wish to confirm letters of credit issued by foreign banks not only because they are unfamiliar with the credit risk of the foreign bank but also because there may be concern about the political or economic risk associated with the country in which the bank is located. An international banker can help exporters evaluate these risks to determine what might be appropriate for each specific export transaction.

Merits of Letter of Credit (SITPRO, 2008).

1. The beneficiary is assured of payment as long as it complies with the terms and conditions of the letter of credit. The letter of credit identifies which documents must be presented and the data content of those documents. The credit risk is transferred from the applicant to the issuing bank.

2. The beneficiary can enjoy the advantage of mitigating the issuing bank's country risk by requiring that a bank in its own country confirm the letter of credit. That bank then takes on the country and commercial risk of the issuing bank and protects the beneficiary.
3. The beneficiary minimizes collection time as the letter of credit accelerates payment of the receivables.
4. The beneficiary's foreign exchange risk is eliminated with a letter of credit issued in the currency of the beneficiary's country.

Risks involved in letter of credit (SITPRO, 2008):

1. Since all the parties involved in Letter of Credit deal with the documents and not with the goods, the risk of Beneficiary not shipping goods as mentioned in the LC is still persists.
2. The Letter of Credit as a payment method is costlier than other methods of payment such as Open Account or Collection
3. The Beneficiary's documents must comply with the terms and conditions of the Letter of Credit for Issuing Bank to make the payment.
4. The Beneficiary is exposed to the Commercial risk on Issuing Bank, Political risk on the Issuing Bank's country and Foreign Exchange Risk in case of Usance Letter of Credits.

In Appendix 6 some banks are being mentioned which are considered safe while doing business using L/C with CIS. The banks name is given by the respondents of the survey.

6.3 Bills of collection

There are two types of Bill for Collection, which are usually determined by the payment terms agreed within a commercial contract.

6.3.1 Documents against Payment (D/P)

Documents against payment used where payment is expected from the buyer immediately, otherwise known as "at sight". This process is often referred to as "Cash against Documents".

The buyer's bank is instructed to release the exporter's goods only when payment has been made. Where goods have been shipped by sea freight, covered by a full set of Bills of Lading, title is retained by the exporter until these documents are properly released to the buyer.

6.3.2 Documents against Acceptance (D/A)

Documents against acceptance used where a credit period (e.g. 30/60/90 days - 'sight of document' or from 'date of shipment') has been agreed between the exporter and buyer. The buyer is able to collect the documents against their undertaking to pay on an agreed date in the future, rather than immediate payment. The exporter's documents are usually accompanied by a "Draft" or "Bill of Exchange" which looks something like a cheque, but is payable by (drawn on) the buyer. When a buyer (drawee) agrees to pay on a certain date, they sign (accept) the draft. It is against this acceptance that documents are released to the buyer. Up until the point of acceptance, the exporter may retain control of the goods, as in the D/P scenario above. However, after acceptance, the exporter is financially exposed until the buyer actually initiates payment through their bank (SITPRO, 2008).

6.4 Drafts

A draft, sometimes also called a bill of exchange, is analogous to a foreign buyer's check. Like checks used in domestic commerce, drafts sometimes carry the risk that they will be dishonored.

6.4.1 Sight Draft (Edward et al., 1993)

A sight draft is used when the seller wishes to retain title to the shipment until it reaches its destination and is paid for. Before the cargo can be released, the original

ocean bill of lading must be properly endorsed by the buyer and surrendered to the carrier, since it is a document that evidences title.

Airway bill or bills of lading, on the other hand, do not need to be presented in order for the buyer to claim the goods. Hence, there is a greater risk when a sight draft is being used with an air shipment.

In actual practice, the bill of lading or airway bill is endorsed by the shipper and sent via the shipper's bank to the buyer's bank or to another intermediary along with a sight draft, invoices, and other supporting documents specified by either the buyer or the buyer's country (e.g., packing lists, consular invoices, insurance certificates). The bank notifies the buyer when it has received these documents; as soon as the amount of the draft is paid, the bank releases the bill of lading, enabling the buyer to obtain the shipment.

When a sight draft is used to control the transfer of title of a shipment, some risk remains because the buyer's ability or willingness to pay may change between the time the goods are shipped and the time the drafts are presented for payment. Also, the policies of the importing country may change. If the buyer cannot or will not pay for and claim the goods, then returning or disposing of them becomes the problem of the exporter.

Exporters should also consider which foreign bank should negotiate the sight draft for payment. If the negotiating bank is also the buyer's bank, the bank may favor its customer's position, thereby putting the exporter at a disadvantage. Exporters should consult their international bankers to determine an appropriate strategy for negotiating drafts.

6.4.2 Time Drafts and Date Drafts

If the exporter wants to extend credit to the buyer, a time draft can be used to state that payment is due within a certain time after the buyer accepts the draft and receives the goods, for example, 30 days after acceptance. By signing and writing "accepted" on the draft, the buyer is formally obligated to pay within the stated time.

When this is done the draft is called a trade acceptance and can be either kept by the exporter until maturity or sold to a bank at a discount for immediate payment.

A date draft differs slightly from a time draft in that it specifies a date on which payment is due, for example, December 1, XXXX, rather than a time period after the draft is accepted. When a sight draft or time draft is used, a buyer can delay payment by delaying acceptance of the draft. A date draft can prevent this delay in payment but still must be accepted.

When a bank accepts a draft, it becomes an obligation of the bank and a negotiable investment known as a banker's acceptance is created. A banker's acceptance can also be sold to a bank at a discount for immediate payment.

6.5 Credit cards

Many exporters of consumer and other products (generally of low value) that are sold directly to the end user accept Visa and MasterCard in payment for export sales.

International credit card transactions are typically placed by telephone or fax, methods that has inherent threat of facilitating has an inherent threat of fraudulent transactions. Merchants should determine the validity of transactions and obtain proper authorizations. Use of credit cards in international business is rather a new phenomenon, which can be discussed in great detail. But it is not done so, as it is beyond the scope of this study.

6.6 Open account (Commonwealthbank, 2006)

In a foreign transaction, an open account is a convenient method of payment and may be satisfactory if the buyer is well established, has demonstrated a long and favorable payment record, or has been thoroughly checked for creditworthiness. Under open account, the exporter simply bills the customer, who is expected to pay under agreed terms at a future date. Some of the largest firms abroad make purchases only on open account.

Open account sales do pose risks, however. The absence of documents and banking channels may make legal enforcement of claims difficult to pursue. The exporter may have to pursue collection abroad, which can be difficult and costly. Also, receivables may be harder to finance, since drafts or other evidence of indebtedness are unavailable.

Before issuing a pro forma invoice to a buyer, exporters contemplating a sale on open account terms should thoroughly examine the political, economic, and commercial risks and consult with their bankers if financing will be needed for the transaction.

6.7 Other payment mechanisms

6.7.1 Consignment sales

In international consignment sales, the same basic procedure is followed as in the local market. The material is shipped to a foreign distributor to be sold on behalf of the exporter. The exporter retains title to the goods until they are sold by the distributor. Once the goods are sold, payment is sent to the exporter. With this method, the exporter has the greatest risk and least control over the goods and may have to wait quite a while to get paid.

When this type of sale is contemplated, it may be wise to consider some form of risk insurance. In addition, it may be necessary to conduct a credit check on the foreign distributor. Furthermore, the contract should establish who is responsible for property risk insurance covering merchandise until it is sold and payment received.

6.7.2 Foreign currency

One of the uncertainties of foreign trade is the uncertainty of the future exchange rates between currencies. The relative value between the local currency and the buyer's currency may change between the time the deal is made and the time payment is received. If the exporter is not properly protected, devaluation in the foreign currency could cause the exporter to lose money in the transaction. One of the simplest ways for an exporter to avoid this type of risk is to quote prices and

require payment in local currency. Then the burden and risk are placed on the buyer to make the currency exchange. Exporters should also be aware of problems of currency convertibility; not all currencies are freely or quickly convertible into local currency.

Russia is the largest trading partner of India. It accounts for more than 60% of total trade between India and CIS countries. Before the disintegration, the currency of trade was Indian Rupee and Russian Rouble. At present, most of the trade takes place in US dollar denominated value. So the currency risk for the traders is due to the movement of US dollar with respect to Indian Rupee and Russian Rouble (Bhattacaharya. 2004).

6.7.3 Countertrade and Barter

International countertrade is a trade practice whereby a supplier commits contractually, as a condition of sale, to undertake specified initiatives that compensate and benefit the other party. The resulting linked trade fulfills financial (e.g., lack of foreign exchange), marketing, or public policy objectives of the trading parties. Not all suppliers consider countertrade an objectionable imposition; many exporters consider countertrade a necessary cost of doing business in markets where exports would otherwise not occur.

Simple barter is the direct exchange of goods or services between two parties; no money changes hands. Pure barter arrangements in international commerce are rare, because the parties' needs for the goods of the other seldom coincide and because valuation of the goods may pose problems. The most common form of compensatory trade practiced today involves contractually linked, parallel trade transactions each of which involves a separate financial settlement. For example, a countertrade contract may provide that the exporter will be paid in a convertible currency as long as the exporter (or another entity designated by the exporter) agrees to export a related quantity of goods from the importing country.

According to Mr. Claude Lemberger (2006), "Indian exporters must take advantage of countertrade opportunities by trading through an intermediary with countertrade

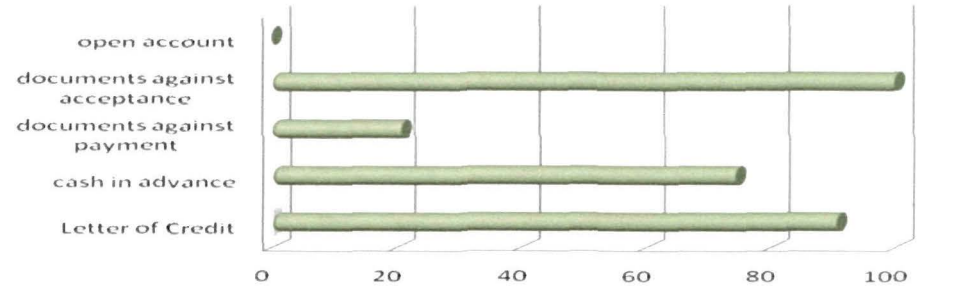
expertise, such as an international broker, an international bank, or an export management company. Some export management companies offer specialized countertrade services. Exporters should bear in mind that countertrade often involves higher transaction costs and greater risks than simple export transactions specially in CIS region."

The primary survey conducted among the 57 has revealed the following facts regarding the issues related to payment procedures. The respondent traders etc. were asked to give their most favoured mode of payment. They were asked to point out from among 'L/C', 'open account', 'documents against acceptance', 'documents against payment' and ' cash in advance' and other method.

6.8 Modes of payment

As it can be seen from the graphs below, the trends in mode of payments is similar for both exports (Fig. 6.1) and imports (Fig. 6.2). Most common mode of payment is documents against acceptance followed by letter of credit and cash in advance. The least commonly used method is open account.

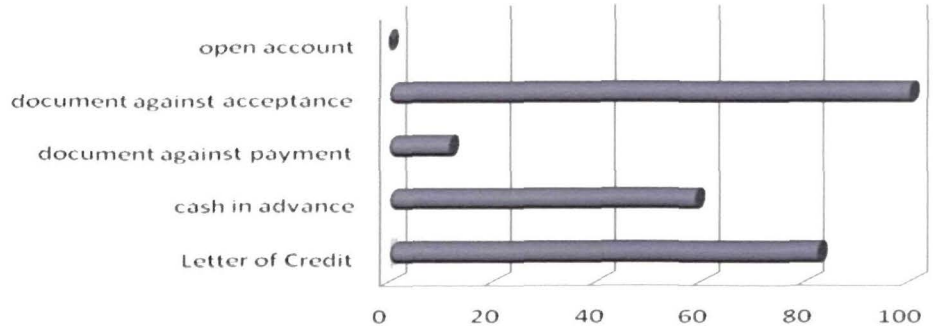
Fig. 6.1: Mode of payment (in exports)



	Letter of Credit	cash in advance	documents against payment	documents against acceptance	open account
Series1	91	74	21	100	0

All the respondents use documents against acceptance and 91% of the respondents use Letter of Credit as a mode of payment. Open account is not used by any of the respondents.

Fig. 6.2: Mode of payment (in imports)



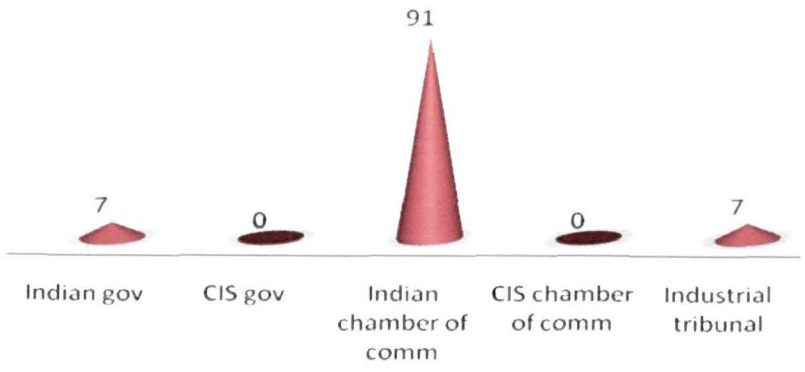
	Letter of Credit	cash in advance	document against payment	document against acceptance	open account
Series1	82	59	12	100	0

All the respondents use document against acceptance and 82% of them trust letter of credit. 59% of them also use cash in advance. Open account is not used by any of them.

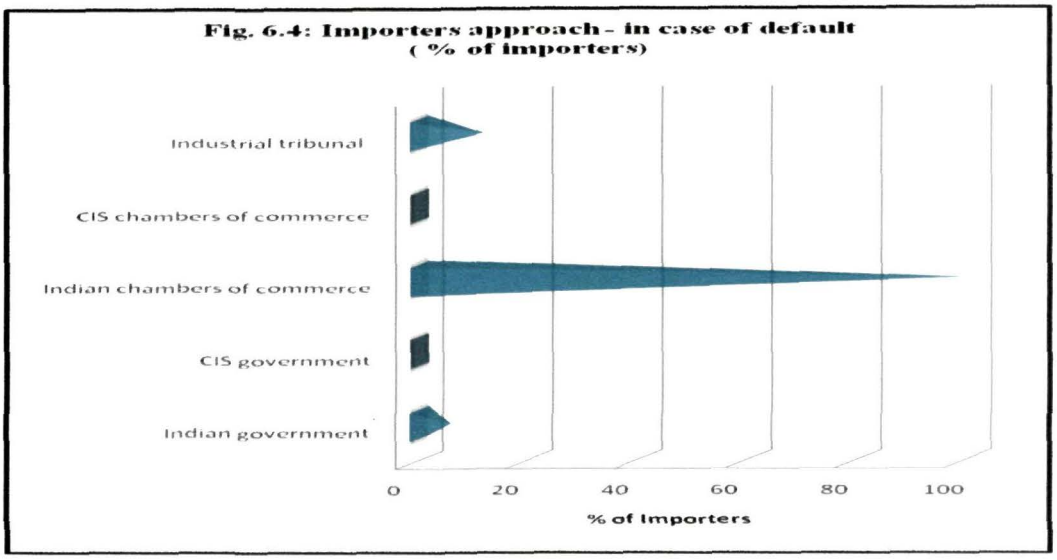
6.9 Dispute settlement

The use of industrial tribunals which are made for the purpose of settling disputes between the two trading partners is very low (Fig. 6.3). There should be sincere effort put in this direction to improve the healthy trade practices.

Fig. 6.3: Exporters approach - in case of default (% of expoters)



As against the exporters approach in dispute settlement, importers use industrial tribunals for dispute settlements but still the % is very low (Fig. 6.4). There is need of serious efforts in the direction to enhance the healthy trade practices.



Freight Charges for different Mode of Transport for Delhi based exporter.

The norm that is followed in case of India-CIS trade through rail & road is that the Indian exporter is supposed to bear the cost of transportation till the land custom point in India. Therefore, the Table (6.1) shows the freight charges till the Mumbai port. Though the freight charges were reported in different units by the exporters, researcher has normalise them to equivalence of 20' container by road, rail & sea transport to facilitate comparison across the modes.

Table 6.1: Freight charges for different transportation Mode.

	Distance (KM)	Road 20'container	Sea 20' container	Rail1 wagon/20' container
Delhi-Mumbai	1428	Rs 34,000		Inland Haulage = Rs 20,500 Terminal handling Charges=Rs 6,435
Mumbai_Bandar Abbas			USD 750	

The above freight is based on a 20' container of carrying capacity 19 MT from Delhi to Mumbai by road and rail. Though freight charges are less in railway compared to

road but exporters prefers road than rail because of long waiting period for wagon. The sea freight from Mumbai to Bandar Abbas is USD 750.

6.10 Hawala/Hundi: An Illegal Payment System

Hawala is an alternative or parallel remittance system. It exists and operates outside of, or parallel to 'traditional' banking or financial channels. It was developed in India, before the introduction of western banking practices, and is currently a major remittance system used around the world. It is but one of several such systems; another well known example is the 'chop', 'chit' or 'flying money' system indigenous to China, and also, used around the world. These systems are often referred to as 'underground banking'; this term is not always correct, as they often operate in the open with complete legitimacy, and these services are often heavily and effectively advertised.

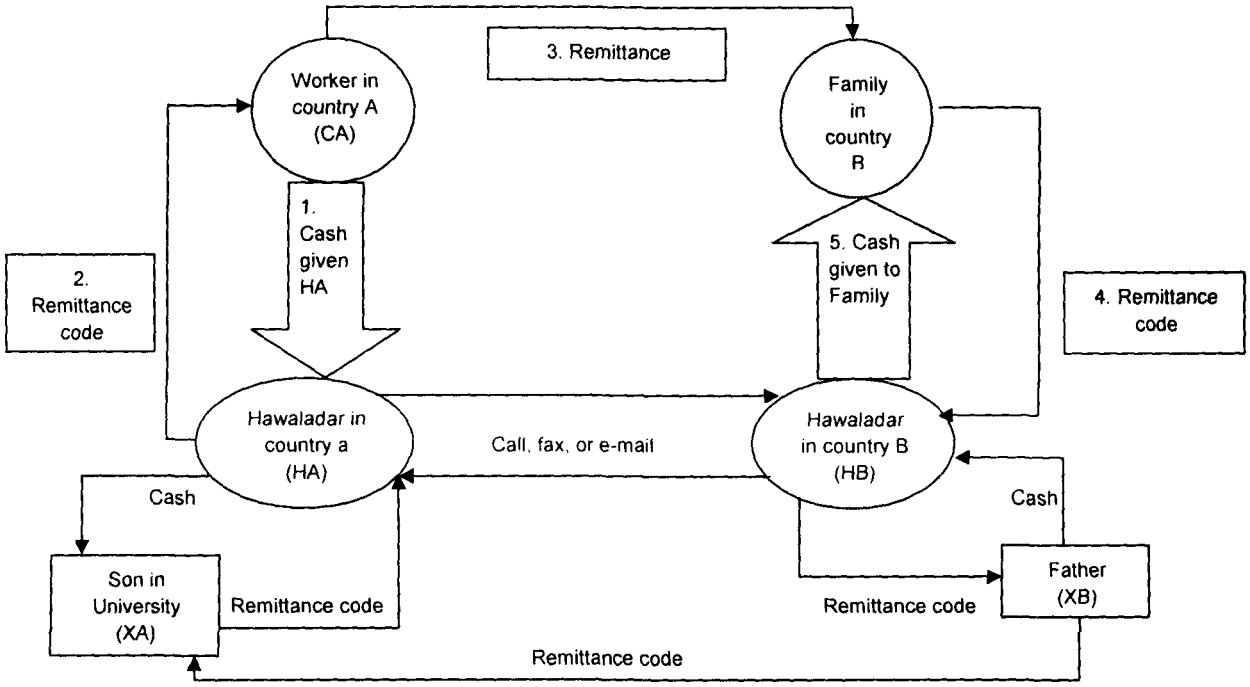
The components of hawala that distinguish it from other remittance systems are trust and the extensive use of connections such as family relationships or regional affiliations. Unlike traditional banking or even the 'chop' system, hawala makes minimal (often no) use of any sort of negotiable instrument. Transfers of money take place based on communications between members of a network of hawaladars, or hawala dealers (Passas. 2004).

6.10.1 Process of Hawala/Hundi

The process is simple; the client has a quantity of cash which he wants to send from his country of abode to his family in his country of origin. He gives this money to his hawala banker. The banker calls his contact, also a hawala banker, in the second country and asks him to release the cash to the family of the client. At the same time, the hawala banker provides the client with a remittance code which he, in turn, tells a member of his family. His family member visits the contact who releases the money on presentation of the correct remittance code. This whole process can take less than 24 hours (Flowchart 6.1).

The hawala banker and his counterpart in the customer's country of origin keep a tally of how much each owes the other and settle their accounts several times a year.

Hawala bankers often have import/export businesses and may use goods to settle accounts e.g. one may export a certain amount of goods to the other at a reduced rate to cover the amount he owes from hawala exchanges. The figure below shows the working of a Hawala system.



Flowchart 6.1: Method of Hawala Transaction

Basic method of payments used by the exporters and importers are cash in advance, letter of credit, documentary collection or draft, open account and other methods like consignment sales etc. But with every payment method there are some risks involved. In any transaction it is tried form each side that their risks are minimized. For example, in mechanism like cash in advance increases the risk conditions of buyer because the payment has already been made and the goods are not yet transported. Risk factors include that now if the goods are damaged then asking for replacement might not bear fruits. But since in these businesses only serious players are there chances of such happenings are very less. Also on the other hand the payment processes are modified like 50% of the cash is paid in advance and rest is paid after delivery.

Apart from these legal methods which are in practice there are some illegal payment systems like Hawala are also very much popular. Hawala is an alternative or parallel remittance system. It exists and operates outside of, or parallel to 'traditional' banking or financial channels. It was developed in India, before the introduction of western banking practices, and is currently a major remittance system used around the world.

References

Bhattacharya, S.K.(2004). India and the European Union-Trade and Non-tariff Barriers. Arar Publication. New Delhi.PP.234.

Commonwealthbank. (2006). International Trade Services. Ho Chi Minh City. Retrieved August 12, 2008, from http://www.commbank.com.vn/download/ international-trade-services-en.pdf

Edward, G. H., Myron, M., James, L., Ebrary., Inc., Nolan, Karla C. S., Wendy, B., Alexandra, W. (1993) *Importers Manual USA*. PP-960.

Jain, N.K. (2003). *How to Export*. Nabhi Publication. New Delhi.

Jain, N.K. (2003). *How to Import*. Nabhi Publication. New Delhi

C.Lemberger, personal communication, April 23, 2008.

Passas, N. (2004). *Indicators of Hawala Operations and Criminal Abuse*. Journal of Money Laundering Control. Henry Stewart publications. Vol.8. No.2. PP. 168-172.

SITPRO. (2008). *Methods of payment in International Trade*. Retrieved June 22, 2008, from www.sitpro.org.uk/trade/paymentmethods.html

CHAPTER - 7

7. ANALYSIS OF PRIMARY DATA AND MAJOR FINDINGS

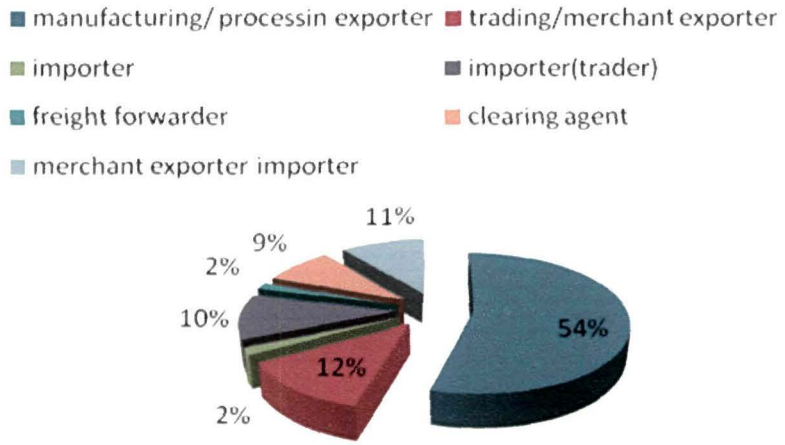
To get the correct picture of trade practices between India and CIS countries a survey was undertaken. This survey highlighted the recent trade practices and cleared some of the myths about the two trading partners. For the purpose of survey respondents were chosen from across the trading arena. They ranged from manufacturer exporters to merchant exporters/ importers (Fig.7.1). The survey was not confined to a particular geographical area but was spread across 4 big Indian cities namely Delhi, Mumbai, Bangalore and Kolkata.

With a view to achieve the composition of supply chain with respect to Transportation and the payment procedures followed in trade between India and CIS, analysis has been done on the following variables. A detailed discussion on these variables is offered in Chapter 4:

1. Custom related issues
2. Availability of Information
3. Modes of payment
4. Dispute settlement
5. Modes of transport

The survey questionnaire was handed over to the trader and he/she was asked to give the objective answers to the questions. This helped in getting an unbiased opinion. In total 57 responses to the survey questionnaire were collected. Below is the profile of people who participated in the survey. A significant portion (54%) of the respondents is from manufacturing/processing exporter whereas only 2% are from importer and freight forwarder.

Fig. 7.1: Profile of Respondents



7.1 General Profile of the Exporters and Importers

The primary survey covered a total sample of 57 respondents in four cities across India namely, Delhi, Kolkata, Mumbai & Bangalore. The major classification of the respondents was done on the basis of activities of the firm as given below:

1. Manufacturing / Processing exporters.
2. Trading / Merchant exporters.
3. Importers (Actual user).
4. CHA's / Clearing Agents.

Apart from the above mentioned categories, in depth interviews were also conducted with a few players, those who have diversified their business in different domain such as Manufacturing & Merchant Exporter, Manufacturing Exporter & Merchant Importer, Merchant Exporter and Importer (Table 7.1).

A distribution of exporters and importers based on this classification is given below.

Table 7.1: Distribution of Firms by Trading Activity					
Type of firm	**Delhi**	**Kolkata**	**Mumbai**	**Bangalore**	**Total**
Manufacturing / Processing Exporter	6	4	16	2	**28**
Merchant Exporter	3	2	5	-	**10**
Importer (Actual User)	-	-	-	-	-
Merchant Importer	2	-	5	-	**7**
CHA's (Custom House Agent / CA (Clearing Agent)	1	1	2	-	**4**
Manufacturing & Merchant Exporter	-	1	2	-	**3**
Manufacturing Exporter & Merchant Importer	1	-	-	-	**1**
Merchant Exporter & Importer	2	1	1	-	**4**
Total	**15**	**9**	**31**	**2**	**57**

The table (7.2) also provides details about the number of respondents covered in a particular city for each of the categories. It is evident from the table that the maximum number of respondents have been covered in the study are from Mumbai. The reasons perhaps lies in the fact that Mumbai is the major economic and financial hub in the country and Mumbai is one of the nearest for exporting goods to CIS countries.

Consolidated figures of respondents covered during the survey are given below:

Table 7.2: Distribution of firms by city wise					
Type of Firms	**Delhi**	**Kolkata**	**Mumbai**	**Bangalore**	Total
No. of Exporter (Exclusive)	9	7	23	2	41
No. of Importer (Exclusive)	2	-	5	-	7
No. of Exporter cum Importer	3	1	1	-	5
CHA/Clearing Agent	1	1	2	-	4
Total	**15**	**9**	**31**	**2**	**57**

The researcher has tried to understand the trade relations of these firms with other countries also apart from CIS. Out of the trading firms covered under survey, more than 70% of them traded with other countries along with trading with CIS, whereas 27% covered for the study trade exclusively with CIS.

7.2 Exporter Turnover and Trade with CIS

1. Classification on the basis of the turnover of the firms.
2. Classification on the basis of the proportion of trade with CIS.

Based on the turnover, the firms were divided into 5 broad categories i.e. less than 5 crore, 5-10 crore, 10-15 crore, 15-20 crore and more than 20 crore. Majority of firm (45%) (Including not disclosed) covered in this study fall under category of more than 20 crore, followed by firms which fall in the 15-20 crore category 20%. There were very few firms, which fall in the category of less than 5 crore (Table 7.3).

The distribution of firm according to their turnover is given below:

Table 7.3: Distribution of Firms by Turnover					
Size	Delhi	Kolkata	Mumbai	Bangalore	Total
<5 crore	3	1	2	-	6
5-10 crore	1	1	3	-	5
10-15 crore	3	2	6	-	11
15-20 crore	1	3	4	-	8
>20 crore	6	1	6	2	15
Not disclosed	1	1	12	-	12
Total	**15**	**9**	**31**	**2**	**57**

7.3 Classification of firms according to mode of transport.

The below table (7.4) have classified the exporters and importers based on mode of transport they use for trading purpose. It was identified that majority of the firms are trading through sea route. Most of the firms in Mumbai trade through sea route whereas traders in Delhi opted for both air & sea route.

Table 7.4: Distribution of Traders According to the Mode of Transport for the Trade with CIS				
	Delhi	Kolkata	Mumbai	Bangalore
Sea	2	4	26	-
Rail	-	-	-	-
Air	1	-	4	-
Sea & Rail	4	3	-	-
Sea & Road	4	-	1	2
Rail & Road	-	-	-	-
Sea, Rail & Road	4	2	-	-

The main points which came out of the data analysis are the following:

Export of goods to CIS countries

- 17% of the respondents feel that customs procedures are more complex when exporting to CIS than when exporting to US/UK in similar products.
- More than $1/4^{th}$ of the traders feel difficulty in understanding codes.
- A large percentage feels custom classification as a problem. As these issue elongate a trade transaction time, they make business people feel distracted from trade.
- 14% of the respondents told that they have problems with rules of origin for exports to CIS.

Import of goods from CIS countries

- 22% of the respondents feel that customs procedures are more complex when importing from CIS than when importing from US/UK in similar products.
- Indian customs generally asked for the catalogue of the products, in case categorization is not clear to them.
- Almost one third of the respondents told that customs valuation pose problem for them
- Importers use industrial tribunals for dispute settlements but still the percentage is very low.

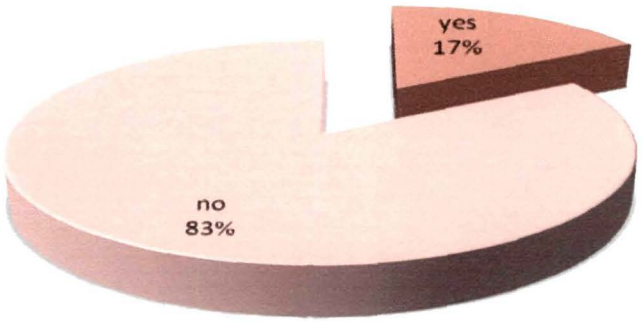
Analysis of the variables

1. Custom related issues

Custom procedures: As it is clear from the pie chart below that a larger percentage of traders do not face problems in custom procedures (Fig.7.2). But still a good percentage feels the other way. Also as the sample size is of 57 people this percentage might increase also. In this situation this is a big hurdle for business

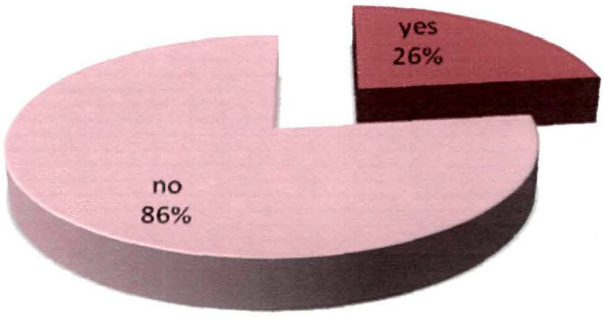
people. Both the countries should reduce the custom procedures for each other or should at least try to make them less complex.

Fig. 7.2: Custom procedures more complex in CIS



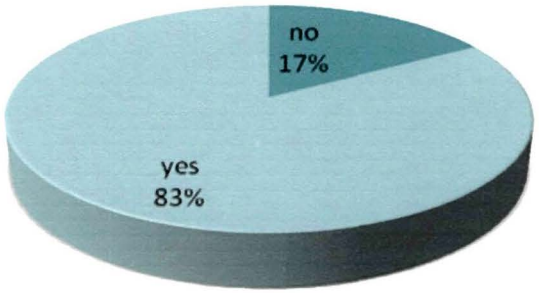
Custom codes: More than 1/4th of the respondents feel difficulty in understanding codes (Fig.7.3). There should be procedural developments to make these tasks easier for the exporters. This can be done by developing a portal which contains details about each code.

Fig. 7.3: Difficulty in understanding codes



Custom classification: A large percentage feels custom classification as a problem (Fig. 7.4). As these issues elongate a trade transaction time, they make business people feel distracted from trade. To improve trade between India and CIS both the countries should try to reduce the complexities in the system and also devise means to educate traders about the same.

Fig. 7.4: Custom Classification - a problem



Custom valuation: According to respondents who said they faced problems in custom valuation (Fig. 7.5 & Fig. 7.6), custom authorities often state that the declared value is not as per market values so one has to convince them that whatever is written is market value only. Such discrepancies should be removed from the system. Healthy and transparent trade practices should be promoted for long lasting relationships.

Fig. 7.5: Problem in custom valuation (in exports)

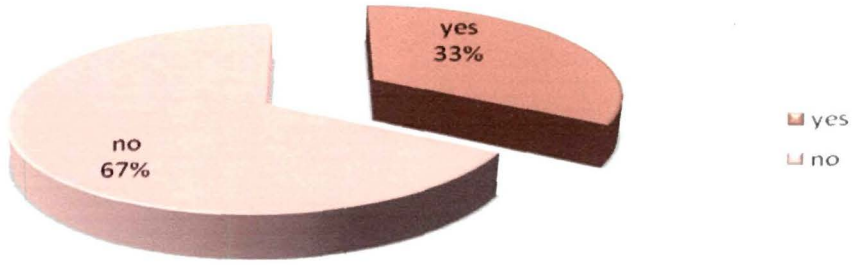
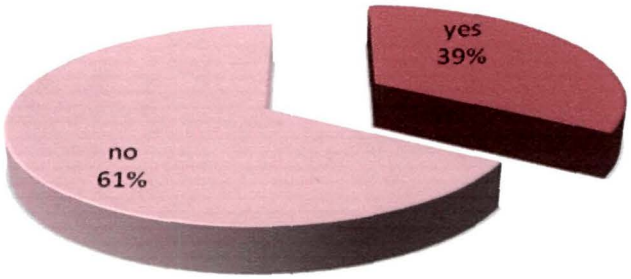


Fig. 7.6: Problem in custom valuation (in imports)



Rules of origin certificate: 86% (Fig. 7.7) of the respondents feel that they don't have problems with rules of origin certificate while exporting and 89% (Fig. 7.8) respondents feel the same in case of imports. Those who find it troublesome refer to it as procedural inefficiency which should be addressed as soon as possible.

Fig. 7.7: Problem in getting rules of origin certificate (in exports)

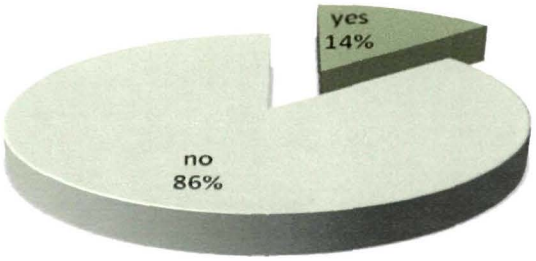
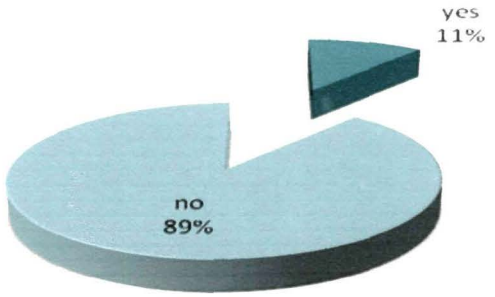


Fig. 7.8: Problems in getting rules of origin certificate (in imports)



2. Availability of Information

Most of the exporters rely on Indian government for the information related to export followed by CIS government (Fig. 7.9). The graph below corroborates the same. This may be due to the inefficient information technology resources used by the governments of CIS countries. Information plays very important role in the success of any business and it should be provided to the traders as and when needed.

Fig. 7.9: Source of trade information (%)

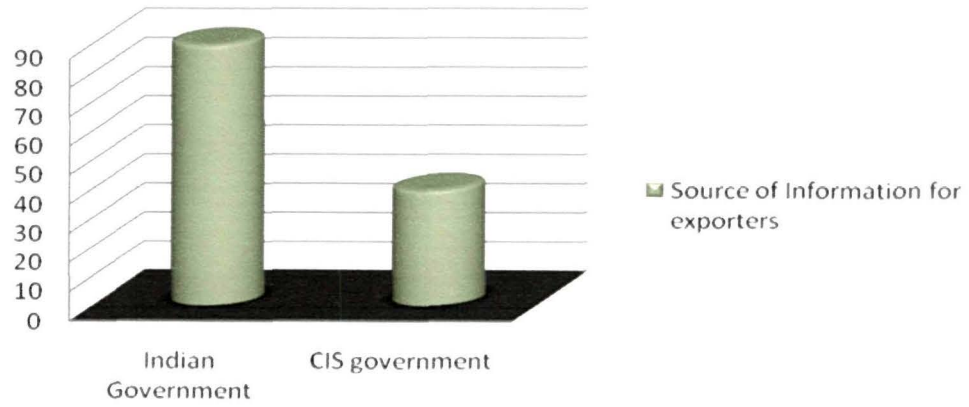
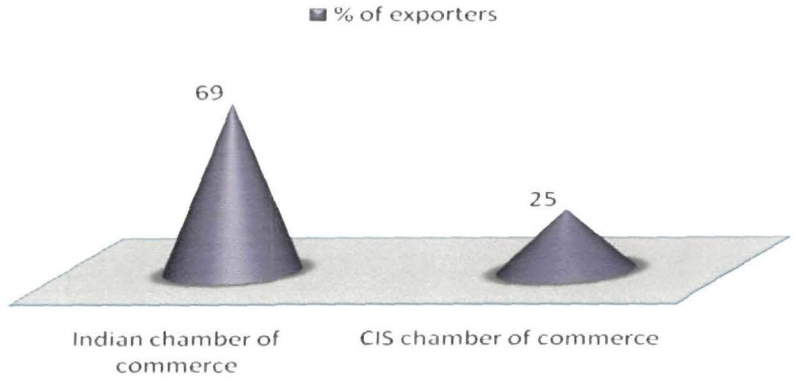


Fig. 7.10: Source of trade information

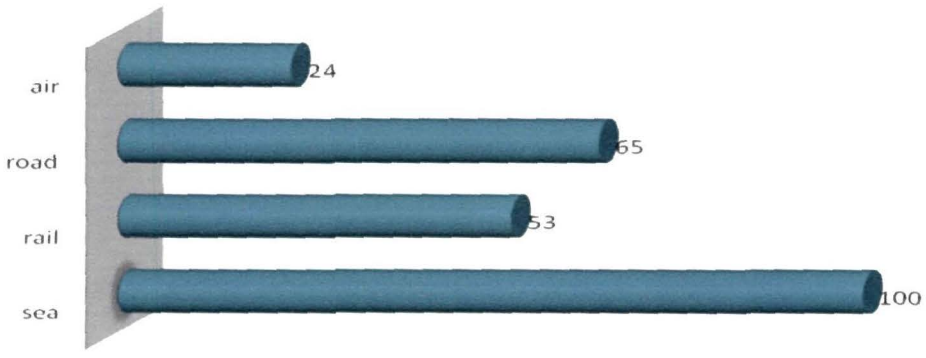


Also Indian chamber of commerce plays a vital role in giving information to the exporters. Although in each comparison it was seen that not many exporters are seeking information from CIS country counterparts. This may highlight that trade facilitation for CIS countries is more from India's side than from their counterparts in CIS (Fig.7.10).

3. Modes of transport

It can be seen clearly that every trader in one way or the other is using sea route (Fig. 7.11). As the study has been undertaken for transportation, the budgets for transportation consume large part of investment if the sea route is taken. Also the turnovers for most of the traders are low. In such condition as it has been proved above that land route is very cheap, efforts should be made from both the sides to develop an efficiently working land route.

Fig. 7.11: Mode of transport (%)



Some supply chain analysis has been drawn on the basis of survey made in different cities which are given below.

To understand the composition of supply chain between India and CIS with respect to transportation, the export routes for 3 different commodities are being explained as case examples. Export for these commodities originates from different ports of India. Data for these cases have been collected from the traders during the interviews.

Transportation: Supply Chain Analysis (For a Delhi Exporter).

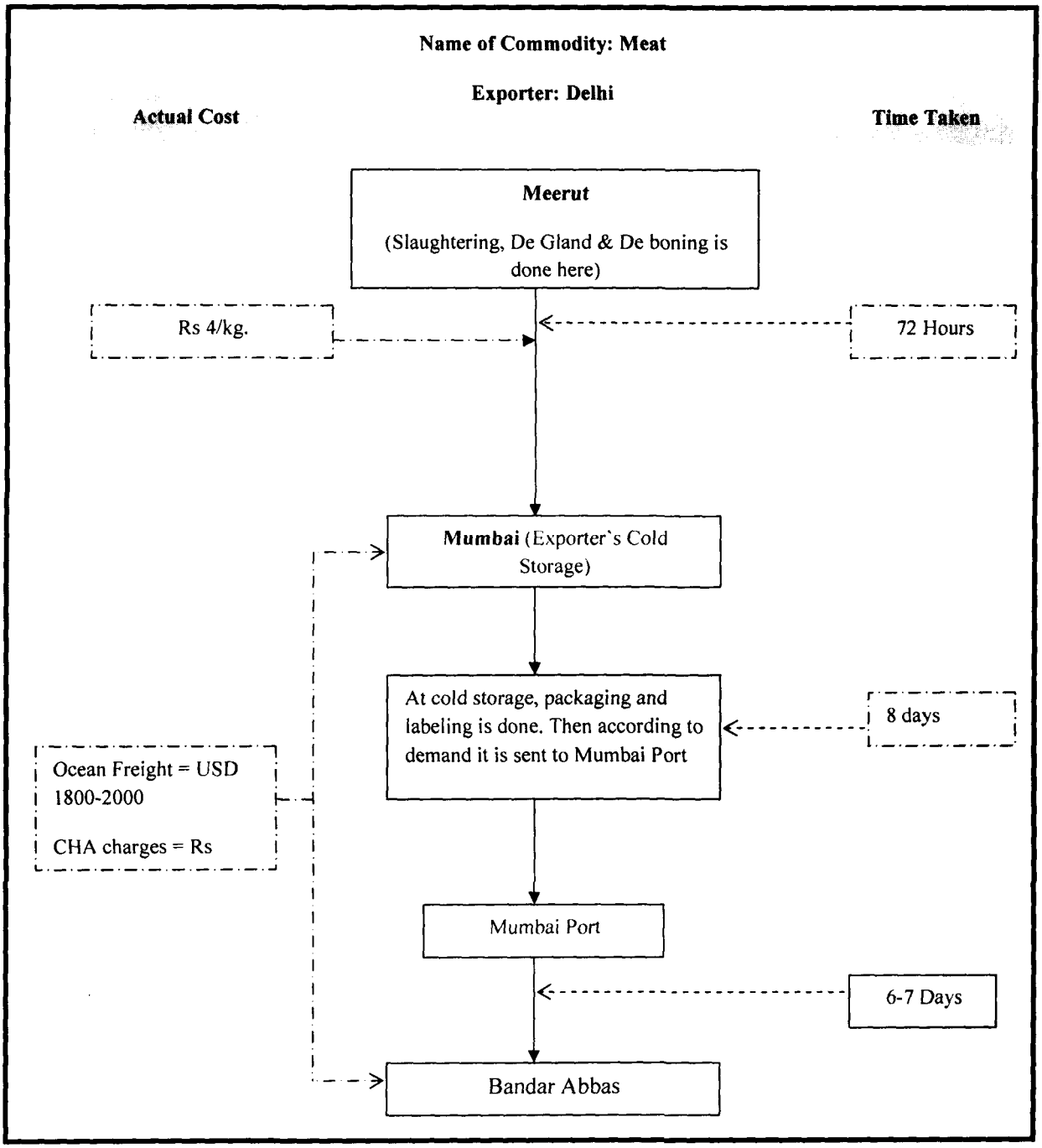
Supply Chain for Meat through Sea:

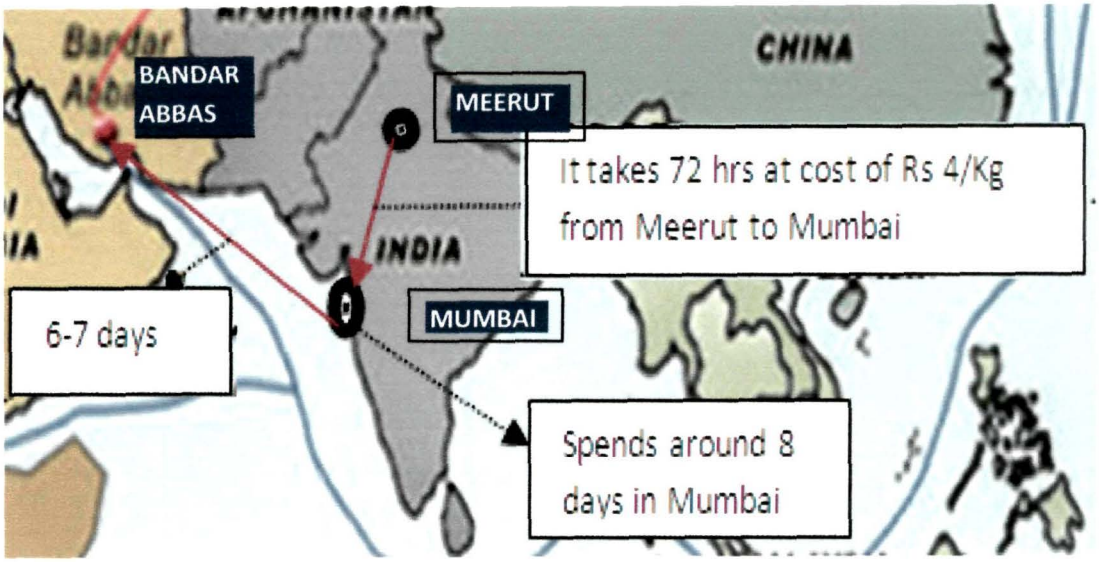
The flowchart (7.1) and Map (7.1) show the flow and process of transportation of meat from Meerut (in U.P) India to Bandar Abbas of Iran in a 40' container of quantity 28 MT. The value of the consignment is Rs.14 lakh. The exporter is based at Delhi. Slaughtering, De gland and De boning is done at Meerut after which it reaches the exporter's cold storage in Mumbai in 72 hrs at a cost of Rs.4/kg. From exporter's cold storage, after packaging and labeling, the meat is sent to Mumbai port as per demand. This particular activity takes around 8 days. From Mumbai port the meat is sent to Bandar Abbas in 6-7 days. Ocean freight for this consignment is around USD 1800-USD2000 and Custom House Agent (CHA) charges around Rs.12,000/- per container. Total transportation time in this case is around 17-18 days.

Flowchart 7.1: Supply Chain Analysis on transportation for a Delhi based exporter.

Product: Meat Mode: Sea

Quantity: 28 MT Value: Rs.14 Lakh





Map 7.1: Supply Chain Analysis on transportation for a Delhi based exporter

Transportation: Supply Chain Analysis (For a Mumbai Exporter).

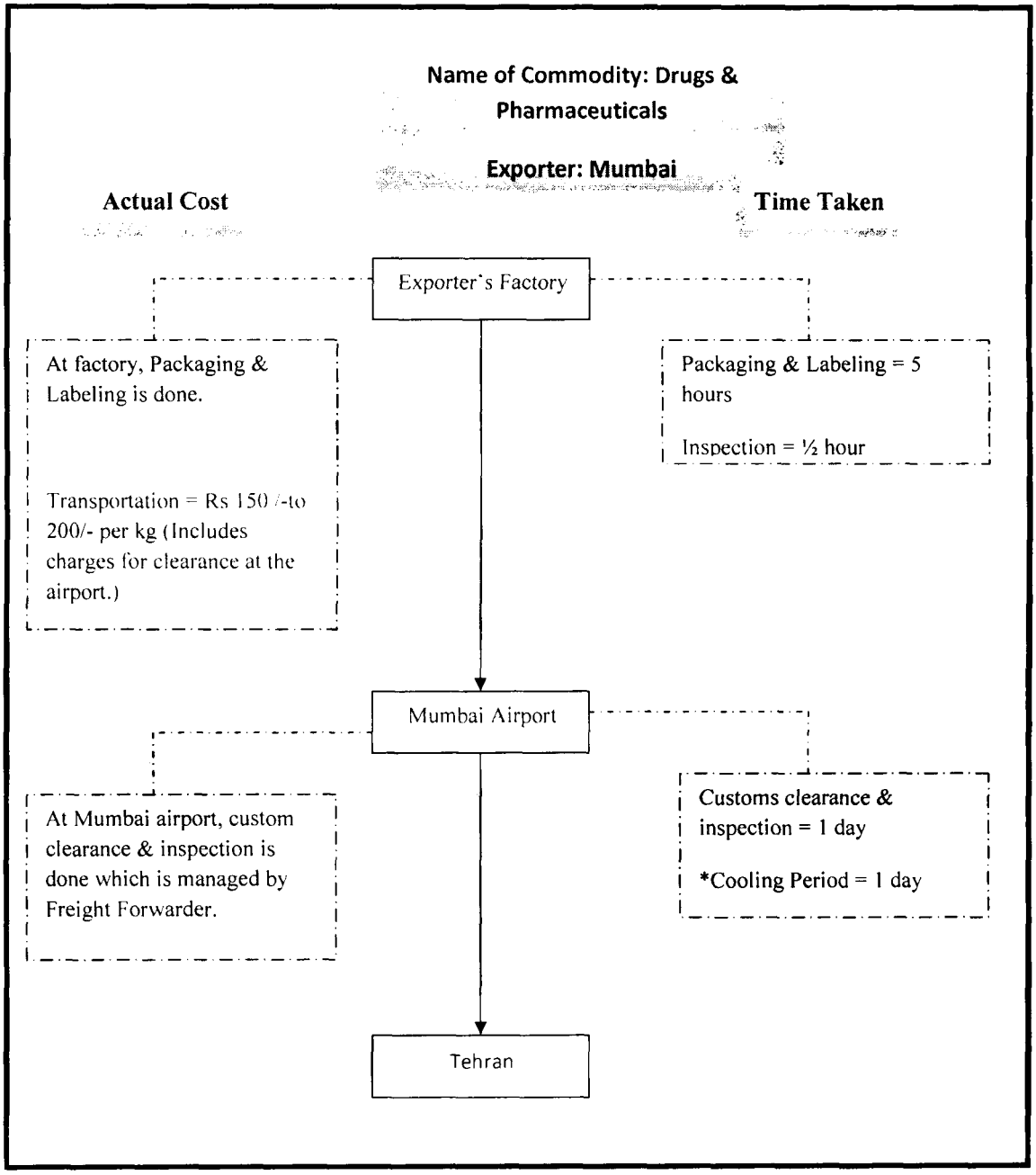
Supply Chain for Drugs and Pharmaceuticals by Air:

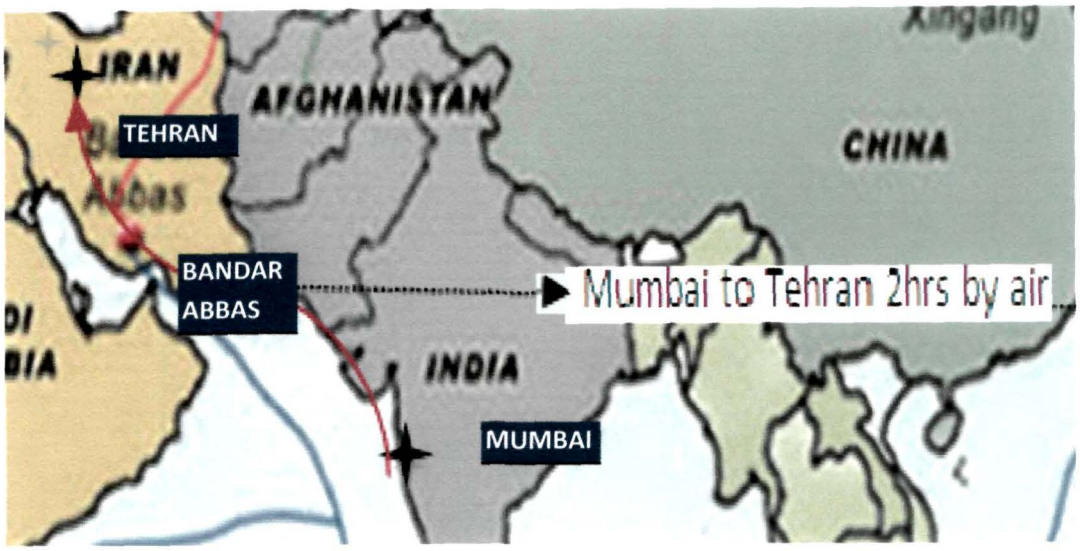
The flowchart (7.2) and Map (7.2) show the flow and process of transportation of drugs from Mumbai, India to Tehran of Iran by Air. The quantity of the consignment is 2000kg. The value of the consignment is Rs.18 lakhs. The exporter is based at Mumbai. Packaging and labeling along with the insurance of the consignment is done at the exporter's factory. Transportation costs around Rs.150/- to Rs.200/- per kg include the charges for clearance at the airport. Packaging & labeling takes around 5 hrs and inspection around ½ hr. The transport from factory to Mumbai is covered within a day. Custom clearance & inspection is done at Mumbai airport which is managed by freight forwarder. Air freight charges from Mumbai to Tehran come around Rs.110/- per kg. Customs clearance and inspection takes around 1 day and cooling period also takes around the same time. During cooling period, it can be known whether the consignment is carrying any dangerous products or not. It takes around 2 hrs for the consignment to reach Tehran. Total transportation time taken during shipment was 3 days.

Flowchart 7.2: Supply Chain Analysis on transportation for a Mumbai based exporter

Product: Drugs and Pharmaceuticals | Mode: Air

Quantity: 2000 kg | Value: Rs.18 Lakh





Map 7.2: Supply Chain Analysis on transportation for a Mumbai based exporter

Transportation: Supply Chain Analysis (For a Kolkata Exporter).

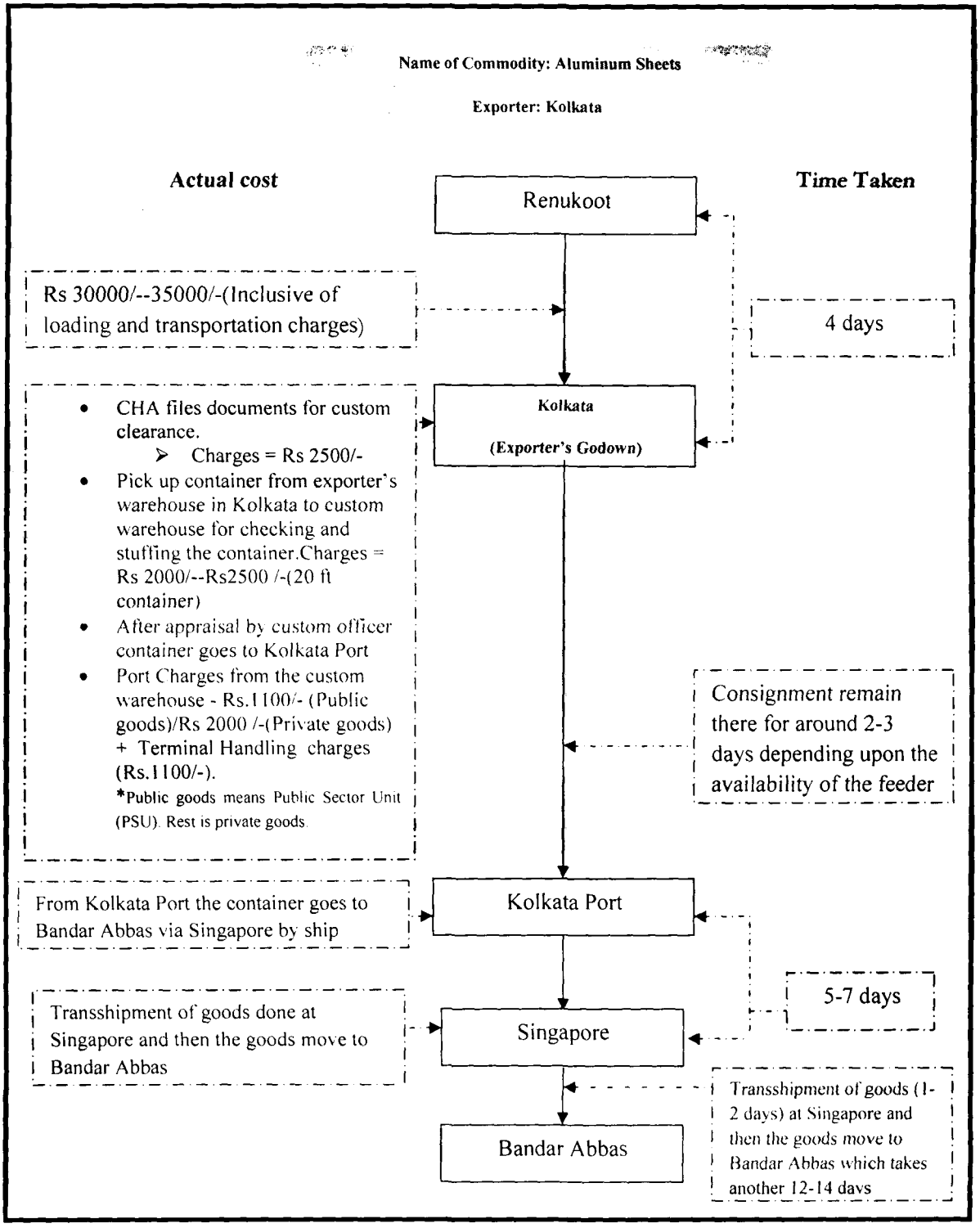
Supply Chain for Aluminum Sheets through Sea:

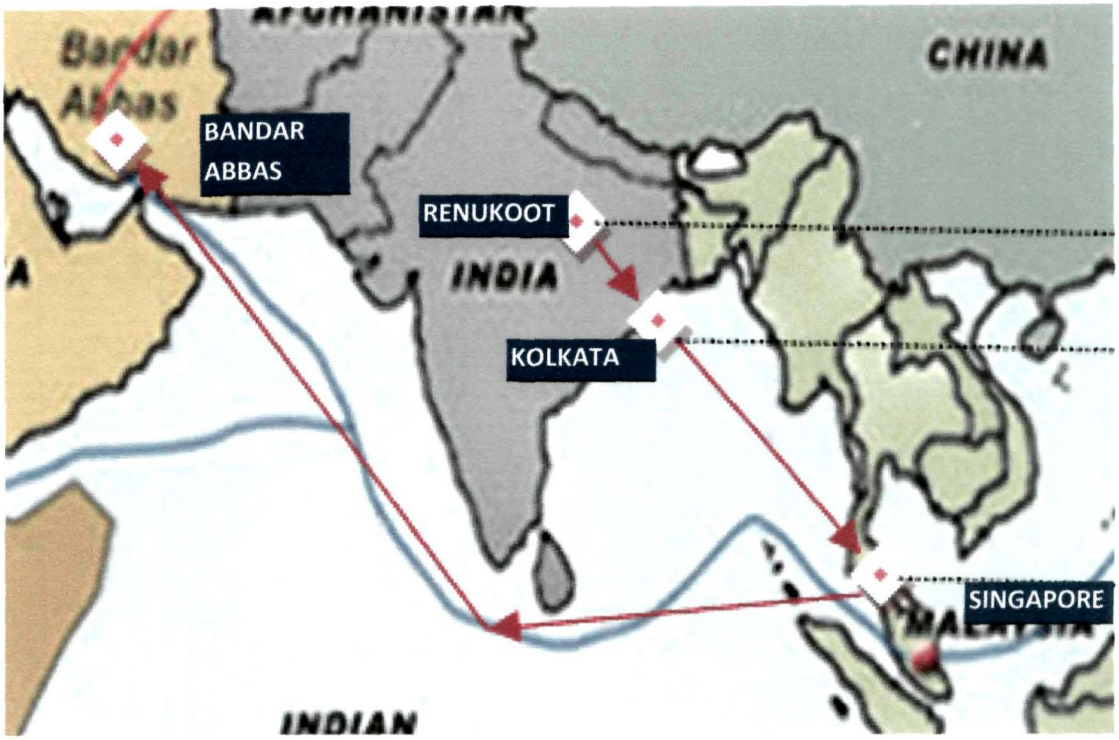
The flowchart (7.3) and Map (7.3) show the flow and process of transportation of aluminum sheet from Renukoot (in U.P), India to Bandar Abbas of Iran via Singapore by sea. The quantity of the consignment was 16 MT. The value of the consignment is Rs.21 lakh. The exporter is based at Kolkata. It costs around Rs.30000/--Rs.35000/- inclusive of loading and transportation charges from Renukoot to Kolkata at exporter's godown which takes around 4 days. CHA files documents for clearance at around Rs.2500/-. These containers are checked and loaded for around Rs.2000/- to Rs.2500/- for a 20' container. After appraisal by custom officer, the container goes to Kolkata port. Port charges from the custom warehouse are around Rs.1100/- for public goods and Rs. 2000/- for private goods. Consignment remains there for around 2-3 days depending upon the availability of the feeder vessel. The container then goes to Bandar Abbas via Singapore by ship. This takes around 5-7 days. Transshipment of goods is done at Singapore and then goods move to Bandar Abbas which takes around 12-14 days. Transshipment takes around 1-2 days at Singapore. Total transportation takes place between 24 days to 26 days.

Flowchart 7.3: Supply Chain Analysis on transportation for a Kolkata based exporter

Product: Aluminum Sheets | Mode: Sea

Quantity: 16 MT | Value: Rs.21 Lakh





Map 7.3: Supply Chain Analysis on transportation for a Kolkata based exporter

Major Findings from the Survey:

1. All the traders interviewed are using sea route, partially or for the entire voyage, because land route to most destinations either do not exist or are of poor quality in terms of road and related infrastructure. In case of transportation of products like meat, the commonly used route is Mumbai to Bandar Abbas by Sea. For Aluminum sheet, it is transshipment via Singapore to Bandar Abbas. In both cases containers are reloaded from here on trucks or railway wagons and dispatched to the Iranian port of Anzali on the Caspian Sea. After trans-shipment at Anzali, goods are transported to Russian port Astrakhan through Caspian Sea. From Astrakhan to Moscow or other CIS region goods can be sent by land route.
2. A small section of the respondents are of the opinion that customs procedures are more complex when trading with CIS than when exporting to US/UK in similar products. It was also found that many of the traders feel difficulty in understanding codes. Classification was seen to be one of the major hindering factors, while rules of CIS Origins was also seen an obstacle. Categorization,

submission of catalogue and valuation was seen to be a major problem in case of imports from CIS. As these issues elongate a trade transaction time, they make business people feel distracted from trade. Even though industrial tribunals were used for dispute settlements in import still the response was very low.

CHAPTER - 8

8 CONCLUSION AND RECOMMENDATIONS

The main inhibiting factor in the India-CIS trade is the high cost of transportation of goods from India to CIS. Indian goods can become much more competitive once the cost of transportation is reduced. In fact the transportation cost can be drastically reduced if goods are exported to CIS countries via a feasible land route. Both India and CIS countries need to work together to establish some kind of bilateral or multilateral arrangement to facilitate the smoother transport of the goods. Governments of both regions could address the above mentioned handicaps by taking appropriate measures before they can become mutually beneficial trading partners.

A detailed discussion is offered an economic growth of CIS region countries in the 2nd Chapter. Also discussions are offered on India's trade relation with CIS countries before and after the breakup.

It is found that India has maximum export to Russia within CIS region of value USD 940.20mn and highest import from also from Russia of value USD 2469.70mn.

In chapter 5 existing major road and rail routes are discussed. It is seen that Indian goods are exported to CIS region from Mumbai to Bandar Abbas via the strait of Hormuz in the Persian Gulf. After reloading of containers on truck or railway wagons the goods are dispatched to the Iranian port of Anzali on the Caspian Sea. After trans-shipment at Anzali, goods are loaded on ships and taken to Russian port of Astrakhan.

In chapter 7 an analysis was offered on basis of data collected from various respondents about custom related issues, availability of information, mode of payment, dispute settlement and mode of transport.

From the analysis of 3 case studies mentioned in this chapter it is found that the components of supply chain between India and CIS with respect to transportation .

All the commodities have to take a sea route and the goods having higher value and lesser volume go through aerial route. Time taken for the complete process of transportation takes between two and half to three and half weeks. Feasible road route from India to CIS can reduce the time as well as cost of transportation. It would make the Indian goods much more competitive in the CIS market.

Apart from 2 existing routes, 2 new land routes are identified in the study. The identified routes are:

1. India-China-Kyrgyzstan route. Total distance of the route is 2590 km.
2. India-Pakistan-Afghanistan-Turkmenistan route. Total distance of the route is 2365km.

The India-China-Kyrgyzstan route passes through China. India at present possesses healthy political relation with the Chinese government, and hence this route may not be politically hindered . However, it is matter to be seen if the route is viable technically as the connecting road from Laddakh to Kashgar passes through the Himalayas and may be useable only seasonally. Also the condition of the road itself is not beyond criticism. Moreover, this route is approximately 10% longer in comparison to other proposed route.

Another reason of worry is that the portion of the route as mentioned above is under Chinese military occupation. It may be difficult to get permission to use it.

India-Pakistan-Afghanistan-Turkmenistan is the shortest possible route from India to CIS countries.

The only, but most vital demerit of the route is that is passes through the Taliban regime and political situation in Pakistan and Afghanistan is not stable. And hence even if this route is the most viable in terms of technicality and distance, at present it may not be used for transportation of at least Indian goods.

In chapter 6 a detailed discussion on the payment procedures followed in international trade specifically between India CIS is offered.

The legal payment method used by the exporters and importers are cash in advance, letter of credit, documentary collection or draft, open account and other methods like consignment sales. Out of these methods the traders survey points out that "documents against acceptance" and "cash in advance" are the most popular methods of payments both in export and in import.

Apart from these legal methods which are in practice, some illegal payment systems like Hawala are also being practiced. Hawala is an alternative or parallel remittance system. It exists and operates outside of, or parallel to 'traditional' banking or financial channels. However, the respondents are not willing to divulge any thing regarding this mode because of obvious reason.

Trade relation between India and CIS can be, perhaps, given a boost by improving the ties among legal financial institution. Towards this certain recommendations can be drawn from the analysis and findings of this study.

Security is one of the major concerns for every country today. If the countries start cooperating on the security front then it will become easier for the countries to rely more upon each other. Both regions should also try to create regional/sub-regional avenues for cooperation between the CARs and South Asia. If possible, both regions should try to emphasize on more people to people contact. This would not only create cordial relations amongst the people of both regions but also both regions will take more part in making trade relations more successful. Regular contacts between ministers, agencies of both the countries and interaction with NGOs can also yield fruits in this direction.

With all the analysis done it can be concluded that there exist chances of having very good trade relations between the two. But at the same time there are difficulties, which can only be removed if both regions act as active trade partners and try to resolve the issues as soon as possible.

For the **recommendations on further studies**, it can be said that a comparison of non branded and branded product supply chain could be taken up. This would not only show up the loopholes in each of them but will also give direction in which practice of one supply chain can be implemented in another. To improve this study, if direct contact with the traders in CIS is possible then it would add more authenticity to the study. This way, the study will be analyzing the problem from Indian trader's perspective as well as CIS trader's perspective. Also, some live case studies can be incorporated as part of the study.

BIBLIOGRAPHY

Books/Dissertations/Reports

Abuseitova, M. (2002). *Strengthening India – Central Asia Cooperation: Especially Economic and Trade Relation.* Paper Presented in India- Central Asia Seminar. New Delhi.

Bhattacaharya, S.K. (2004). *India and the European Union-Trade and Non-tariff Barriers.* Arar Publication. New Delhi. PP. 234.

Chadha, R., Deardorff, A., Pohit,S., & Stern, R. (1998). *The Impact of Trade and Domestic Policy Reforms in India: A CGE Modeling Approach.* Ann Arbor: University of Michigan Press.

Douglas, L. (2003). *International logistics: Global Supply Chain Management.* Publisher: Springer.

Edward, G. H., Myron, M., James, L., ebrary., Inc., Nolan, Karla C. S., Wendy, B., Alexandra, W. (1993) *Importers Manual USA.* PP-960.

Ganeshan, R., & Terry P. H. (1995). *An Introduction to Supply Chain Management.* Publisher: Jaico.

Ghosh, D. K. (1992). *Economics of Indo-Soviet Trade (1953-1990): A Cost-Benefit Analysis.* New Delhi, Gian, vii, pp.262

Hessler, J. (2004). *A Social History of Soviet Trade: Trade Policy, Retail Practices, and Consumption, 1917-1953.* Publisher: Princeton University Press.

Hopkirk, P. (1994). *The Great Game: The Struggle for Empire in Central Asia.* London: Kodansha International.

Hunter, S.T. (1994). *Transcaucasus in Transition: Nation-Building and Conflict.* Publisher: Westview Press Inc.

Hunter, S.T. (1996). *Central Asia Since Independence.* Publisher: Praeger publishers.

Jain, N.K. (2003). *How to Export.* Nabhi Publication. New Delhi.

Jain, N.K. (2003). *How to Import.* Nabhi Publication. New Delhi.

Kehoe, T. J., & Kim. J. R. (2002). *How Important is the New Goods Margin in International Trade?* Staff Report 324, Federal Reserve Bank of Minneapolis.

Mattoo, A., & Carsten, F. (2002). *Regional Agreements and Trade in Services: Policy issues.* World Bank Policy Research Working Paper 2852, pp.1-32

Meyer, K., & Brysac, S. (1999). *Tournament of Shadows: The Race for Empire in Central Asia.* New York. Publisher: Perseus Books Group.

Paul, K. (1994). The Myth of Asia's Miracle. Foreign Affairs 73(6), pp.62-78

Platz, H. (1998). *New Trade Patterns: New Transport Demands in the Black Sea Region.* Transport and Logistics Trends in Europe and Asia. European Conference of Ministers of Transport. Turkey.

Prothero, C. H. (1999). *Policy Issues and investment needs in Transportation.* Publisher: Asian Development Bank. Manila

Rai, L.H. (1991). *Indo-Soviet Trade Relations.* Mittal Publications, New Delhi.

Raina, R. (2002). *Glimpses of the Past :cultural rhythms, India and Central Asia--New Delhi*: Ministry of External Affairs. External Publicity Division New Delhi.

Sahay, B. S. (2000). *Supply Chain Management for Global Competitiveness.* New Delhi: Macmillan India Limited.

Shams- ud- din. (1999). *Nationalism in Russia and Central Asian Republics.* Publisher: Lancers Book. New Delhi.

Journals

Ariel, C. A. (2000). Paving the Silk Road: US Interests in Central Asia and the Caucasus. *Harvard International Review.* 22(1).

Chand,S., & Sen, K.(2002). Trade Liberalization and Productivity Growth: Evidence from Indian Manufacturing. *Review of Development Economics.* 6(1), 120–132.

Dholakia, B.H.. & Dholakia, R.H. (1995). Total Factor Productivity Growth in Manufacturing Industry. *Economic and Political Weekly.* 30(28), pp. 1786-1787

Ellram, M. L., Tate, L. W., & Corey, B. (2004). Understanding and Managing the Services Supply Chain. *The Journal of Supply Chain Management.*35(3), pp4-14

Fraser, P. J., & Leenders, R. M. (2003). Gaining and Losing Pieces of the Supply Chain: An article from: *The Journal of Supply Chain Management*. 39(1), Pp.27(13)

Jeffrey, A. O., Kenneth, J. P., Joseph, R. C., & Robert, M. M. (2005). Supply management strategies for the future: A Delphi Study. *Journal of Supply Chain Management*. 41(3), pp. 29 – 48.

Khanna, J. (1997). Rail Road Transportation facilities to Central Asian Republics. *ICCCI NEWSLETTER*.

Kelkar, V. (1999). India's Emerging Economic Challenges. *Economic and Political Weekly*. 34 (33), pp. 2326-2329.

Lubec, G., Holaubek, J., Feldl, C., Lubec, B., & Strouhal, E. (1993). Use of Silk in Ancient Egypt. *NATURE*. 362(6415), pp.25

Passas, N. (2004). Indicators of Hawala Operations and Criminal Abuse. *Journal of Money Laundering Control*. Henry Stewart publications. Vol.8. No.2. PP. 168-172.

Rumor, B. (2000). In Search of Stabilit. *Harvard International Review*. 22(1).

Schoeberlin, J. (2000). Between Two Worlds: Obstacles to Development and Prosperity. *Harvard International Review*. 22(1).

Websites

Asian Development Bank. (2008). *Proposed Asian Development Fund Grant Kyrgyz Republic: CAREC Transport Corridor 1, (Bishkek–Torugart Road) Project*. Grant No.123, Project No.39674-02. Retrieved October 19,2008, from http://www.adb.org/Documents/RRPs/KGZ/39674-KGZ-RRP.pdf

Branson, J. (1998). *Azerbaijan: Silk Road Conference Ends with Tariff Agreement*. Radio Free Europe / Radio Liberty, Inc. Retrieved November 8, 2008, from http://www.b-info.com/places/Bulgaria/news/98-09/sep08a.rfe

Branson, J. (1998). *Central Asia/Caucasus: Silk Road Conference Agrees on Eurasian Corridor.* Radio Free Europe / Radio Liberty, Inc. Retrieved November 19,2008 from http://www.b-info.com/places/Bulgaria/news/98-09/sep09a.rfe

Businessline (2002). *Export route to Russia.* Retrieved July 8, 2004 from http://www.thehindubusinessline.com/2002/06/17/stories/2002061700830601.htm

Commonwealthbank. (2006). *International Trade Services.* Ho Chi Minh City.

Retrieved August 12, 2008, from http://www.commbank.com.vn/download/international-trade-services-en.pdf

C.Lemberger, personal communication, April 23, 2008.

Distance Calculator, Cities Near Afghanistan-Kabul. (n.d). *Current local times and distance from Kabul.* Retrieved October 12, 2008, from http://www.timeanddate.com/worldclock/distances.html?n=113

Distance Calculator, Cities Near Turkmenistan-Ashgabat. (n.d). *Current local times and distance from Ashgabat.* Retrieved October 12, 2008 from http://www.timeanddate.com/worldclock/distances.html?n=387

Distance Map. (n.d). *Approximate Distance in Kilometers Between Main Cities and Towns of Pakistan.* Retrieved February 14, 2008, from http://www.cybercity-online.net/Travel_Maps_of_Pakistan/distance_map.html

Dwivedi, M. (2007). *Ladakh The Hard Way:By Road.* Retrieved January 21, 2008, from http://www.gonomad.com/transports/0511/ladakh.html

Goble, P. (1999). Commentary:*A Decade of Disappointments.* Asia Times. Retrieved March 6, 2009, from http://www.atimes.com/c-asia/AL08Ag02.html

Indiabudget,(2001). Retrieved June 22, 2006, from http://indiabudget.nic.in/es98-99/chap97.pdf.

Indian Express. (2003, May 26). *Good old DTC buses on Delhi-Lahore road.* New Delhi. Retrieved June 15, 2006 from http://cities.expressindia.com/fullstory.php?newsid=53034

International North-South Transport Corridor. (n.d). Retrieved October 4, 2008, from www.instc.org/

Infoscaler. (2001). *Processes and components of SCM.* Infoscaler Technologies. Retrieved February 11, 2006, from www.infoscaler.com/pcscm.htm

Kilgore, M., Joseph, A., & Metersky, J. (2008). *The logistic challenges of doing business in India.* Ligistics Management. Retrieved February 26, 2008 from http://www.logisticsmgmt.com/article/CA6530458.html

MacDonald, A. (2006). *Managing a Global vs. Domestic Supply Chain.* World Trade Magazine. Retrieved May 3, 2007, from http://www.worldtrademag.com/Articles/Feature_Article/5be8b3d2ca44c010VgnVCM100000f932a8c0

Manali Hill station of Himachal Pradesh. (n.d). *Delhi to Manali.* Retrieved June 12, 2008, from http://www.go2india.in/himachal/manali.php

Manoj, P. (2008). *PE firms line up $2 bn for Maritime logistics.* Wall Street Journal. Retrieved July 23, 2008, from http://www.livemint.com/2008/06/10235739/2008/06/26232010/PE-firms-line-up-2-bn-for-mar.html?d=2

Nawabi, M.A. (2004). *Afghanistan's Trade Routes.* Retrieved October 11, 2006, from http://afghanistan.developmentgateway.org/uploads/media/afghanistan/mariam_nawabi.pdf

Ojha, P.(2007). *Indian Logistics Industry is a $125 bn Goldmine.* TNN Tachomaster. Retrieved October 16,2008, from http://www.tnn.co.uk/WorldwideNews/plonearticle.2007-02-21.6959895165

Outlookarena. (2009). *Logistics sector: A look at road freight transport I.* Views on News.

Retrieved May 28, 2009, from www.equitymaster.com/detail.asp?date=5/22/09&story=3

O'Rourke, B. (2000). *World: Central Asian Leaders Discuss Future of Region.* Radio Free Europe/Radio Liberty Daily Magazine. Retrieved August 29, 2008, from http://www.refrl.org/content/Article/1093175.html

Parthasarthy, G. (2002). *The challenges in the Persian Gulf.* Retrieved June 9, 2005, from http://www.rediff.com/news/2002/mar/21gp.htm.

Parrott, S. (1998). *Central Asia: Communications Links Promise Creation of a New Silk Road.* Radio Free Europe/Radio Liberty Daily Magazine. Retrieved December 26, 2008, from www.american.edu/TED/silkroad.htm

Ramachandran, S. (2002). *India, Iran, Russia map out trade route.* Online Asia Times. Retrieved August 5, 2004, from http://www.atimes.com/ind-pak/df29df02.html

R.Moreau, personal communication, July 2, 2008.

Sachdeva, G. (2004). *Strengthening Indo-Russian Economic Relations.* Journal on foreign affairs and international relations. Retrieved October 13, 2006 from http://eng.globalaffairs.ru/engsmi/0/563.html

Shah, M. S. (2003). *Main Investment Opportunities in Afghanistan.* Afghanistan Investment Support Agency Research and Policy Department. Retrieved April 12, 2007, from http://www.aisa.org.af/investmentopp/Transport.pdf

SITPRO. (2008). *Methods of payment in International Trade.* Retrieved June 22, 2008, from www.sitpro.org.uk/trade/paymentmethods.html.

Spanta. (2006). *Opening transit route will help trade.* India Review. 5. Retrieved February 27, 2007, from http://meakabul.nic.in/ir/2006/09/02ir01.pdf

Sme-expo. (2009). *Transportation Infrastructure 2009.* Retrieved March 6, 2009, from http://www.sme-expo.com/Traninfra09/index.htm

TCIL. (2008). *Indian Road Freight Industry.* Retrieved May 28, 2009 from www.TCIL.com/rt.asp

Tibet Travel Information. (2007). *Xinjiang-Tibet Highway (Yecheng-Burang).* Retrieved January 30, 2009, from http://www.tibettravel.info/get-to-tibet/xinjiang-tibet-highway.html

The Economic Times. (2007, November 11). *World Bank ranks India at 39th in global trade logistics*. New Delhi. Retrieved December 24, 2007, from http://economictimes.indiatimes.com/articleshow/2532844.cms

The Times of India. (2005, January 16). *Which country has the largest railway network in the World?* New Delhi. Retrieved March 12, 2007, from http://timesofindia.indiatimes.com/articleshow/991607.cms

Vijayaraghavan, T.A.S. (2007). *Impact of Transportation Infrastructure on Logistics in India.* Business Logistics & SCM. Retrieved October 2, 2008, from http:// logisticsmanagementandsupplychainmanagement.wordpress.com/2007/05/23/impact-of-transportation-intrastructure-on-logistics-in-india/

Vijayaraghavan. (2001). *Impact of Transportation Infrastructure on Logistics in India.* Logistics Spectrum. Retrieved July 26, 2007, from http://findarticles.com/p/articles/mi_qa3766/is_200101/ai_n8952924/

Volkov, A. (2008). *The road from Bishkek to Torugart.* Retrieved February 2, 2009, from http://www.advantour.com/kyrgyzstan/bishkek-torugart.htm

Vosoughi, S., Shahmansori, T. (2008). *Cooperation between Iran and Central Asian Countries in Rail and Road Transportation: Opportunities.* Isfahan conference. Retrieved December 22, 2008, from http://www.apef-conf.com/my_documents/vosoughi-mansoori_251.pdf

Worldbank. (2008). *Afghanistan:Trade Brief.* World Trade Indicators 2008 database. Retrived September 16, 2008, from http://info.worldbank.org/etools/wti2008/docs/brief1.pdf

Appendix-1

Questionnaire

A. Profile of firm

1.

Name of the Company	
Address of the Company	

2.

Questionnaire Number	

3. Nature of Business. More than one option can be consider

Manufacturing / Processing Exporter	
Trading/Merchant Exporter	
Importer (Actual User)	
Importer (Trader)	
Freight Forwarder	
Clearing Agent	
Others, please mention	

4. Trade profile of top 3 products under each Heading

Units: Rs Lakhs

Heading	Product 1		Product 2		Product 3		Total Value of all products**
Total Export	Name	Value	Name	Value	Name	Value	
Export to CIS	Name	Value	Name	Value	Name	Value	
Indirect export to CIS	Name	Value	Name	Value	Name	Value	
Imports from CIS	Name	Value	Name	Value	Name	Value	

**Total Value is the total trade taking place under each of the headings

5. Trade Profile of top 3 Markets under each Heading

Units: Rs Lakhs

Heading	Market 1	Market 2	Market 3	CIS (%)	Rest (%)	Total			
Export	Name	(%)	Name	(%)	Name	(%)			100%
Import	Name	(%)	Name	(%)	Name	(%)			100%
Indirect Export to CIS	Name	(%)	Name	(%)	Name	(%)			100%

B. India's exports to CIS

6. Do you have any difficultly in understanding the codes/description of items?

	Codes	Description
Yes		
No		

7. If yes, explain how?

8. What kind of problems does approach pose?

9. What are the items which are in demand in CIS but you are not able to export? Please explain the reasons why you are unable to export these items.

10. How do you get trade related information? (you can tick more than one option in each column)

Indian Government	
CIS Government	
Indian Chambers of Commerce	
CIS Chambers of Commerce	
Indian Newspapers	
CIS Newspapers	
Indian government website	
CIS government website	
Private website (mention name)	
CIS Trader	
Indian Trader	

C. Customs for India's exports to CIS

11. Are custom procedures more complex when exporting to CIS than when exporting to USA/UK in similar products?

Yes	
No	

If yes explain, How

12. Does customs classification pose a problem for exports to CIS?

Yes	
No	

13. If yes, explain customs classification problems for exports in CIS Customs.

14. Do you face problems in Customs Valuation for exports to CIS?

Yes	
No	

15. If yes, explain customs valuation problems for exports to CIS

16. Do you have any problems with establishing rules of origin for exports to CIS?

Yes	
No	

17. If yes, explain these problems with rules of origin for exports to CIS

D. Customs for India's imports from CIS

18. Are custom procedures more complex when importing from CIS than when importing from USA/UK in similar products?

19. If yes explain how.

20. Does customs classification pose a problem for imports from CIS?

Yes	
No	

21. If yes, explain classification problems for imports from CIS at Indian Customs.

22. Do you face problems in customs valuation for imports from CIS?

Yes	
No	

23. If yes, explain customs valuation problems for imports from CIS.

24. Do you have any problems with rules of origin certification for imports from CIS?

Yes	
No	

25. If yes, explain problems with rules of origin certification for imports from CIS

26. Do import consignments from CIS require security checks which are more rigorous than those applied to consignments from USA/UK in similar products?

Yes	
No	

27. If yes, explain problems related to security checks for imports from CIS.

28. Do your importers in CIS accept Indian certifications and testing reports?

Yes	
No	

29. If yes, name the testing and certifying agencies in India

Name of Product	Name of Certifying Agency	Name of Testing Agency

30. If NO, then for which products are Indian Certifications are not

31. Do your importers from CIS inspect your manufacturing facilities?

Yes	
No	

32. If yes, what is total number of such inspections per year?

Name of Product manufactured	No. of inspections

33. Is the nature of inspections/tests for imports from CIS more rigorous than those carried out for imports USA/UK in similar products?

Yes	
No	

34. Do you inspect the manufacturing facilities of your CIS Exporters?

35. If yes, what is total number of such inspections per year?

Name of Product	Total number of inspections

36. Do you accept CIS certifications and testing?

Yes	
No	

37. If yes, name the testing and certifying agencies in CIS

Name of Product	Name of Certifying Agency	Name of Testing Agency

38. If NO, then for which products do you not accept CIS Certification?

E. Trade Facilitation for India's exports to CIS

39. Provide information on costs incurred in terms of money and time for transporting/ exporting one 20 feet sea-container load /one rail wagon/ one LD-3 container by air/ one truckload by road

	Description of Leg/Node	Mode of transport	Unit	Qty.	Cost (Rs per unit)	Informal Cost (Rs per unit)	Cost (hours)
Node (a)							
Node (b)							
Node (c)							
Node(d)							
Leg							
Node (a)							
Node (b)							
Node (c)							
Node(d)							
Leg							
Node (a)							
Node (b)							
Node (c)							
Node(d)							

At every node what are the infrastructure related problems

	Description of Leg/Node	Mode of transport	Problem related to infrastructure
Node (a)			
Node (b)			
Node (c)			
Node(d)			
Leg			
Node (a)			
Node (b)			
Node (c)			
Node(d)			
Leg			
Node (a)			
Node (b)			
Node (c)			
Node(d)			

F. Trade facilitation for India's imports from CIS

40. Through what mode of transportation do you receive consignments from CIS? (more than one option can be ticked)

Sea	
Rail	
Road	
Air	

41. Are your import consignments from CIS custom cleared at the port of landing?

Yes	
No	

42. If NOT, do the consignments come into India on a through bill of lading to the destination state/city?

Yes	
No	

43. Give the states though which your goods pass through on bills of lading?

44. What problems do the consignments face when moving through different states?

46. If consignments are custom cleared at point of landing then is the origin of the consignment known when goods move to through other states?

Yes	
No	

47. If yes, explain the kind of problems faced through inter-state movement of consignments imported from CIS

48. Provide information on costs incurred in terms of money and time for importing/ transporting one 20 feet sea-container load /one rail wagon/ one LD-3 container by air/ one truckload by road

	Description of Leg/Node	Mode of transport	Unit	Qty.	Cost (Rs per unit)	Informal Cost (Rs per unit)	Cost (hours)
Node (a)							
Node (b)							
Node (c)							
Node(d)							
Leg							
Node (a)							
Node (b)							
Node (c)							
Node(d)							
Leg							
Node (a)							
Node (b)							
Node (c)							
Node(d)							

49. At every node what are the infrastructure related problems

	Description of Leg/Node	Mode of transport	Problem related to infrastructure
Node (a)			
Node (b)			
Node (c)			
Node(d)			
Leg			
Node (a)			
Node (b)			
Node (c)			
Node(d)			
Leg			
Node (a)			
Node (b)			
Node (c)			
Node(d)			

G. Modes of payment and receipt for India's exports to CIS

I. Receiving payment through Letter of Credit (L/C)

50. Do you receive payments for export to CIS through Letter of Credit (L/C)?

Yes	
No	

51. If yes, please mention the names and location(country and state) of the following

	Name of Bank	Location of Bank (Country/ State)
Confirming bank		
Issuing bank		

52. Do you face any problems with your confirming bank in case of payments made from CIS?

	International Bank	Indian Bank
Yes		
No		

53. If yes ,explain the problems that arise in case of confirmation of L/C

54. Do you face other problems while receiving payment for exports to CIS through L/C?

Yes	
No	

55. If yes , explain problems related to receiving payment for exports from CIS through L/C

II. Other modes of receiving payments for exports

56. What is the mode through which payments for exports to CIS are received? (more than one option can be ticked)

Cash in Advance	
Documents against payment	
Documents against acceptance	
Open Account	
Other methods, please specify	

57. What currency do you accept as payment for exports made to CIS?

Indian Rupee	
US Dollar	
Asian Clearing Union (ACU $)	
Other currency, please specify	

58. Do you face any problems with foreign exchange payments received from your CIS importer?

59. If yes, explain problems related to exchange payments received from CIS

60. Does it take banks longer to clear checks and/ or wire transfers for payment made from CIS as compared to USA/ UK?

61. Do you find it more difficult to get credit for exports made to CIS as compared to credit for exports made to USA/UK?

62. Incase of default of payment by importer, which Trade Body/ Authority do you go to? (More than one option can be ticked)

Trade body/ Authority	Tick boxes
1. Indian Government	
2. CIS Government	
3. Indian Chambers of Commerce	
4. CIS Chambers of Commerce	
5. Industrial Tribunals/ Bodies	
6. Other, please specify	

H. Modes of payment and receipt for India's imports from CIS

III. Making payments for imports through Letter of Credit

63. Do you make payments for imports from CIS through Letter of Credit (L/C)?

64. If yes, please mention the names and location(country and state) of the following

	Name of Bank	Location of Bank (Country/ state)
Issuing bank		
Issuing bank		

65. Do you face any problems in issuing L/C in favour of your CIS importer?

	International Bank	Indian Bank

66. If yes, problems related to issuing L/Cs in favour of your exporter from CIS.

67. While opening L/C in favour of your CIS exporter, do you have to furnish more documents or information to the bank as compare to your imports form USA/ UK

68. If yes, what are these additional requirements?

69. Do you face other problems while making payment for imports from CIS through L/C?

Yes	
No	

70. If yes please explain problems related to making payment for imports from CIS through L/C

IV .Other modes of making payment for imports

71. Specify mode of making payments for imports from CIS. (more than one option can be ticked)

Cash in Advance	
Documents against payment	
Documents against acceptance	
Open Account	
Other methods, please specify	

72. What currency do you accept as payment for exports made to CIS?

CIS Currency	
US Dollar	
Asian Clearing Union (ACU $)	
Other currency, please specify	

73. Do you face any problems with foreign exchange payments made to your CIS exporter?

Yes	
No	

74. If yes, explain problems related to foreign exchange for payments made to CIS.

75. Does it take banks longer to clear checks and/ or wire transfers for payment made to CIS as compared to USA/ UK?

Yes	
No	

76. Incase of default (e.g. defect in goods imported, goods not arriving on time etc.) by your CIS exporter, which Trade Body/ Authority do you go to? More than one option can be ticked

Trade body/ Authority	Tick boxes

Miscellaneous Issues

APPENDIX- 2

Logistics Performance Index ranking

LPI is an interactive benchmarking tool created to help countries identify the challenges and opportunities they face in their performance on trade logistics and what they can do to improve their performance – the LPI allow for comparisons across 150 countries. The Logistics Performance Index is based on a survey of operators on the ground worldwide (global freight forwarders and express carriers), providing feedback on the logistics "friendliness" of the countries in which they operate and those with which they trade. They combine in-depth knowledge of the countries in which they operate with informed perceptions of other countries with which they trade, and experience of global logistics environment. Feedback from operators is supplemented with objective data on the performance of key components of the logistics chain in the home country, data collected for 100 countries.

The Logistics Performance Index (LPI) and its indicators provide the first in-depth cross-country assessment of the logistics gap among countries. Drawing on the first-hand knowledge of logistics professionals worldwide, it provides a comprehensive picture of supply chain performance—from customs procedures, logistics costs, and infrastructure quality to the ability to track and trace shipments, timeliness in reaching destination, and the competence of the domestic logistics industry.
Questionnaire for the survey can be downloaded from the website.

Table 1 **The first Logistics Performance Index**

	Logistics Performance Index			Logistics Performance Index			Logistics Performance Index	
Country	**Rank**	**Score**	**Country**	**Rank**	**Score**	**Country**	**Rank**	**Score**
Singapore	1	4.19	Romania	51	2.91	Senegal	101	2.37
Netherlands	2	4.18	Jordan	52	2.89	Côte d'Ivoire	102	2.36
Germany	3	4.10	Vietnam	53	2.89	Kyrgyz Republic	103	2.35
Sweden	4	4.08	Panama	54	2.89	Ethiopia	104	2.33
Austria	5	4.06	Bulgaria	55	2.87	Liberia	105	2.31
Japan	6	4.02	Mexico	56	2.87	Moldova	106	2.31
Switzerland	7	4.02	São Tomé and Principe	57	2.86	Bolivia	107	2.31
Hong Kong, China	8	4.00	Lithuania	58	2.78	Lesotho	108	2.30
United Kingdom	9	3.99	Peru	59	2.77	Mali	109	2.29
Canada	10	3.92	Tunisia	60	2.76	Mozambique	110	2.29
Ireland	11	3.91	Brazil	61	2.75	Azerbaijan	111	2.29
Belgium	12	3.89	Guinea	62	2.71	Yemen, Rep.	112	2.29
Denmark	13	3.86	Croatia	63	2.71	Burundi	113	2.29
United States	14	3.84	Sudan	64	2.71	Zimbabwe	114	2.29
Finland	15	3.82	Philippines	65	2.69	Serbia and Montenegro	115	2.28
Norway	16	3.81	El Salvador	66	2.66	Guinea-Bissau	116	2.28
Australia	17	3.79	Mauritania	67	2.63	Lao PDR	117	2.25
France	18	3.76	Pakistan	68	2.62	Jamaica	118	2.25
New Zealand	19	3.75	Venezuela, RB	69	2.62	Togo	119	2.25
United Arab Emirates	20	3.73	Ecuador	70	2.60	Madagascar	120	2.24
Taiwan, China	21	3.64	Paraguay	71	2.57	Burkina Faso	121	2.24
Italy	22	3.58	Costa Rica	72	2.55	Nicaragua	122	2.21
Luxembourg	23	3.54	Ukraine	73	2.55	Haiti	123	2.21
South Africa	24	3.53	Belarus	74	2.53	Eritrea	124	2.19
Korea, Rep.	25	3.52	Guatemala	75	2.53	Ghana	125	2.16
Spain	26	3.52	Kenya	76	2.52	Namibia	126	2.16
Malaysia	27	3.49	Gambia, The	77	2.52	Somalia	127	2.16
Portugal	28	3.38	Iran, Islamic Rep.	78	2.51	Bhutan	128	2.16
Greece	29	3.36	Uruguay	79	2.51	Uzbekistan	129	2.16
China	30	3.32	Honduras	80	2.50	Nepal	130	2.14
Thailand	31	3.31	Cambodia	81	2.50	Armenia	131	2.14
Chile	32	3.25	Colombia	82	2.50	Mauritius	132	2.13
Israel	33	3.21	Uganda	83	2.49	Kazakhstan	133	2.12
Turkey	34	3.15	Cameroon	84	2.49	Gabon	134	2.10
Hungary	35	3.15	Comoros	85	2.48	Syrian Arab Republic	135	2.09
Bahrain	36	3.15	Angola	86	2.48	Mongolia	136	2.08
Slovenia	37	3.14	Bangladesh	87	2.47	Tanzania	137	2.08
Czech Republic	38	3.13	Bosnia and Herzegovina	88	2.46	Solomon Islands	138	2.08
India	39	3.07	Benin	89	2.45	Albania	139	2.08
Poland	40	3.04	Macedonia, FYR	90	2.43	Algeria	140	2.06
Saudi Arabia	41	3.02	Malawi	91	2.42	Guyana	141	2.05
Latvia	42	3.02	Sri Lanka	92	2.40	Chad	142	1.98
Indonesia	43	3.01	Nigeria	93	2.40	Niger	143	1.97
Kuwait	44	2.99	Morocco	94	2.38	Sierra Leone	144	1.95
Argentina	45	2.98	Papua New Guinea	95	2.38	Djibouti	145	1.94
Qatar	46	2.98	Dominican Republic	96	2.38	Tajikistan	146	1.93
Estonia	47	2.95	Egypt, Arab Rep.	97	2.37	Myanmar	147	1.86
Oman	48	2.92	Lebanon	98	2.37	Rwanda	148	1.77
Cyprus	49	2.92	Russian Federation	99	2.37	Timor-Leste	149	1.71
Slovak Republic	50	2.92	Zambia	100	2.37	Afghanistan	150	1.21

APPENDIX-3

GDP and Export/Import Data

Nominal GDP (US$ bln)

	2001	2002	2003	2004	2005	2006	2007	2008
ARMENIA	2.12	2.38	2.81	3.58	4.9	6.38	9.23	12.07
AZERBAIJAN	5.71	6.24	7.28	8.68	13.24	20.95	31.24	53.26
BELARUS	12.36	14.6	17.82	22.89	30.21	36.96	44.77	57.68
GEORGIA	3.21	3.4	3.99	5.13	6.41	7.77	10.23	13.28
KAZAKHSTAN	22.14	24.6	30.86	43.15	57.12	81	104.85	141.15
KYRGHYZSTAN	1.52	1.61	1.92	2.21	2.46	2.84	3.75	5.05
MOLDOVA	1.48	1.66	1.98	2.6	2.99	3.41	4.39	6.2
RUSSIA	306.58	345.49	431.43	591.9	764.26	988.56	1289.54	1778.69
TAJIKISTAN	1.06	1.21	1.55	2.07	2.31	2.81	3.71	4.79
TURKMENISTAN	6.93	8.7	11.42	14.2	17.18	21.39	26.2	
UKRAINE	38.01	42.39	50.13	64.88	86.14	108	141.64	198.01
UZBEKISTAN	11.63	9.66	10.13	12	14.31	17.03	22.31	26.62
Total GDP	**412.75**	**461.94**	**571.32**	**773.29**	**1001.53**	**1297.1**	**1691.86**	**2296.8**

Source: IMF (2008)

Real GDP Growth (Annual percentage Change)

	2001	2002	2003	2004	2005	2006	2007	2008
ARMENIA	9.6%	13.2%	14.0%	10.5%	14.0%	13.3%	13.8%	10.0%
AZERBAIJAN	6.5%	8.1%	10.5%	10.4%	24.3%	30.5%	23.4%	16.0%
BELARUS	4.7%	5.0%	7.0%	11.4%	11.4%	10.0%	8.2%	9.2%
GEORGIA	4.7%	5.5%	11.1%	5.9%	9.6%	9.4%	12.4%	3.5%
KAZAKHSTAN	13.5%	9.8%	9.3%	9.6%	9.7%	10.7%	8.9%	4.5%
KYRGHYZSTAN	5.3%	0.0%	7.0%	7.0%	-0.2%	3.1%	8.2%	7.5%
MOLDOVA	6.1%	7.8%	6.6%	7.4%	7.5%	4.8%	4.0%	6.5%
RUSSIA	5.1%	4.7%	7.3%	7.2%	6.4%	7.4%	8.1%	7.0%
TAJIKISTAN	10.2%	9.1%	10.2%	10.6%	6.7%	7.0%	7.8%	6.0%
TURKMENISTAN	20.4%	15.8%	17.1%	14.7%	13.0%	11.4%	11.6%	10.8%
UKRAINE	9.2%	5.2%	9.6%	12.1%	2.7%	7.3%	7.6%	6.4%
UZBEKISTAN	4.2%	4.0%	4.2%	7.7%	7.0%	7.3%	9.5%	8.0%

Source : IMF (2008)

EXPORT DATA (FROM COUNTRY TO WORLD)

(USD bln)

	2001-2002	2002-2003	2003-2004	2004-2005	2005-2006	2006-2007	2007-2008
ARMENIA	0.54	0.7	0.9	1.07	1.42	1.51	1.78
AZERBAIJAN	2.37	2.67	3.06	4.24	8.33	13.95	22.52
BELARUS	8.48	9.31	11.58	15.69	18.18	22.23	27.58
GEORGIA	0.81	1.01	1.29	1.65	2.19	2.55	3.18
KAZAKHSTAN	10.19	11.57	14.94	22.61	30.53	41.58	51.91
KYRGHYZSTAN	17.9	17.01	24.94	33.83	51.69	66.57	73.32
MOLDOVA	0.74	0.88	1.06	1.33	1.5	1.55	2.02
RUSSIA	113.33	125.19	152.16	203.8	268.77	334.65	393.82
TAJIKISTAN	0	0.77	0.99	1.22	1.25	1.65	1.71
TURKMENISTAN	0	0	0	0	0	0	0
UKRAINE	21.09	23.35	28.95	41.29	44.38	50.24	64
UZBEKISTAN							
TOTAL	**175.45**	**192.46**	**239.87**	**326.73**	**428.24**	**536.48**	**641.84**

http://www.imf.org/external/datamapper/index.php

IMPORT DATA (FROM WORLD TO COUNTRY)

(USD bln)

	2001-2002	2002-2003	2003-2004	2004-2005	2005-2006	2006-2007	2007-2008
ARMENIA	0.98	1.11	1.41	1.63	2.12	2.54	3.59
AZERBAIJAN	2.13	3.12	4.77	6.31	7	8.13	9.42
BELARUS	8.98	9.79	12.24	17.18	17.84	23.76	30.42
GEORGIA	1.28	1.46	1.87	2.49	3.32	4.41	5.92
KAZAKHSTAN	10.58	11.58	13.31	18.93	25.47	32.88	44.89
KYRGHYZSTAN	0.57	0.72	0.88	1.13	1.4	2.25	3.22
MOLDOVA	1.09	1.29	1.72	2.1	2.72	3.13	4.31
RUSSIA	74.34	88.26	103.19	130.67	164.3	209.12	282.67
TAJIKISTAN		0.93	1.15	1.44	1.68	2.35	3.71
TURKMENISTAN							
UKRAINE	20.47	21.49	27.67	36.31	43.71	53.31	72.15
UZBEKISTAN							
TOTAL	**120.42**	**139.75**	**168.21**	**218.19**	**269.56**	**341.88**	**460.3**

EXPORT DATA (FROM INDIA)

(USD mln)

	2001-2002	2002-2003	2003-2004	2004-2005	2005-2006	2006-2007	2007-2008
ARMENIA	1.3	2.5	3.5	7.2	7.2	8.6	19.9
AZERBAIJAN	10.7	8.6	12.3	30.8	28.8	24.5	25.8
BELARUS	2.2	5.9	6.5	10.6	12.2	14.4	21.2
GEORGIA	8.3	18.8	34.0	26.8	34.2	40.9	93.0
KAZAKHSTAN	45.7	46.9	74.8	81.4	90.9	83.3	111.9
KYRGHYZSTAN	11.0	14.7	38.2	49.6	28.1	37.2	31.6
MOLDOVA	1.9	2.5	4.4	5.6	5.4	5.5	7.4
RUSSIA	798.2	704.0	713.8	631.3	733.2	902.2	940.2
TAJIKISTAN	1.2	8.7	4.5	6.6	6.2	7.5	12.4
TURKMENISTAN	4.4	10.3	19.2	15.3	18.8	33.8	36.1
UKRAINE	81.1	93.7	110.3	207.7	258.2	289.4	398.8
UZBEKISTAN	6.5	5.1	15.1	21.4	24.4	29.7	40.3
TOTAL	**972.4**	**921.7**	**1,036.5**	**1,094.2**	**1,247.6**	**1,476.9**	**1,738.5**

Source: Ministry of Commerce of India

IMPORT DATA (TO INDIA)

	2001-2002	2002-2003	2003-2004	2004-2005	2005-2006	2006-2007	2007-2008
ARMENIA	0.5	0.2	0.7	0.8	2.1	76.1	3.8
AZERBAIJAN	0.2	1.7	3.0	7.7	5.9	67.0	172.7
BELARUS	5.0	7.1	6.7	12.3	37.9	93.3	125.3
GEORGIA	0.0	6.7	5.4	15.4	19.9	75.0	10.7
KAZAKHSTAN	7.4	12.7	9.3	15.4	26.3	88.1	76.8
KYRGHYZSTAN	0.6	0.5	0.5	0.6	1.5	0.8	0.9
MOLDOVA	0.1	1.8	0.0	0.2	0.2	0.5	0.4
RUSSIA	535.5	592.6	959.6	1,322.7	2,022.2	2,407.6	2,469.7
TAJIKISTAN	1.3	0.1	4.0	4.1	5.9	8.1	9.7
TURKMENISTAN	2.0	5.4	9.3	10.9	12.4	12.1	8.6
UKRAINE	166.9	195.0	235.2	538.7	792.4	997.8	885.5
UZBEKISTAN	17.3	20.5	27.7	31.5	26.1	33.9	16.1
TOTAL	**736.7**	**844.3**	**1,261.5**	**1,960.2**	**2,952.6**	**3,860.2**	**3,780.2**

APPENDIX -4

Major import items from/to between India and CIS

Major import items from CIS to India

Machine tools and other metal working machines, Power and electro-technical equipment, Generating sets (diesel and petrol), turbines and generators, Mining equipment, Lifting and transport equipment : cranes and hoisting equipment, including mobile and E.O.T.cranes, Construction and earthmoving equipments including excavators, dumpers, crawler, tractors, bulldozers, scrapers, motor graders, Metallurgical equipment, Geological prospecting and oil drilling equipment and spare parts, Machinery for food industry, Cotton/Woolen textile machinery, Printing machinery and polygraphic equipment, Laboratory testing machines, optical and control measuring apparatus, metal, cutting instruments and abrasive grains, Ball, roller and taper bearings, Wheel tractors components, agriculture machinery and spare parts, Machinery repair and servicing equipment, River transport, dredging, marine diesel engines and other equipment, Aircraft, helicopters and spare parts, Spare parts, components, industrial material, etc. for H.E.C. Ranchi and Bhilai Steel Plant Steel mill rolls, Other machines and equipment, Oil products, Rolled steel products, Tin plates, Pipes, Pig iron foundry grade, Gas cylinders, Zinc, Lead, Platinum, Power cables, Caustic soda, Other Chemicals, Intermediates for dyes , Raw film, photographic paper and materials, Ammonium sulphate, Muriate of Potash, Asbestos, raw, Refractories, Wood pulp, Newsprint, Paper - craft, packing and other varieties, Medicines and drugs in bulk, Medical and veterinary instruments and equipment, Books and periodicals and postage stamps, Exposed cinematographic films, Industrial explosives, X-ray films, Raw emeralds, Calculating machines

Major export items from India to CIS region

Mica, Raw jute, Wool, raw, Goat skins, raw, semi-tanned and tanned, Tobacco, Essential oils, Shellac, Vegetable oils including Castor oil, Jute bags, Jute cloth,

Coffee, Tea, Spices (black pepper and cardamom), Bananas fresh, Cashew kernels, Cotton piece goods, Woolen cloth,

Leather footwear, Opium, Handcrafts, Coir goods, Sheep casings, De-oiled cakes, Groundnuts H.P.S., Drugs and Pharmaceuticals including :, quinine salts, strychnine, papavanne, ephedrine,

steroid hormones, vitamin A natural, Various chemical products including insecticides, Books, periodicals and postage stamps, Exposed cinematographic films, Engineering products including : metal cutting precision tools, pumps, compressors, components and ancillaries for chemical and oil industries, textile machinery including hosiery machinery and needles, fans, air-conditioners and other electro-technical appliances, zip fasteners, razor blades, Woolen and cotton knitted wear including hosiery, Men's shirts, Fancy leather goods, Fruit juices and canned fruits, Spectacle frames, Linoleum and tarpaulins Other goods

APPENDIX -5

Inspection Procedure

1. Intimation for Inspection

1.1 The processor/exporter intending to export dried fish maws shall submit an application in the prescribed pro-forma in duplicate to the nearest office of the EIA alongwith the bank draft for the required inspection fee, invoice and the purchase order with the contractual specification, if any, at least five days before the date of shipment.

1.2 After proper scrutiny of the application, an officer not below the rank of Technical Officer will be deputed to carry out the quality control and inspection of the consignment offered.

2. Place of Inspection

2.1 The quality control and inspection of dried fish maws will be carried out at the exporter's premises, which shall be well lighted and maintained in good sanitary and hygienic condition.

2.2 The exporter shall provide all the necessary facilities to carry out the inspection.

2.3 The EIA has the right to assess the quality of the consignment at any place of storage, transit or at dock before the shipment.

3. Sampling & Quality Assessment

3.1 The material of the same quality and type will constitute a lot for the purpose of sampling. For drawing representative samples for inspection from the lot(s) offered in packed condition, packages will be selected at random as per the table given below covering different grades as much as possible:

No. of package in the lot		No. of packages to be selected
up to 5	-	1
6 to 10	-	2
11 to 15	-	3
16 to 20	-	4
21 to 30		6
31 to 50	-	8
51 to 100	-	10
101and above	-	12

3.2 The gross weight and net weight of each selected packages shall will be recorded by the EIA officer and it will be verified that the same is as per the declaration on the packages and intimation.

3.3 The contents of each of the packages so selected will be emptied and representative samples picked out from different spots to make a composite sample of about 2 kg. These samples will then be assessed in detail for different factors like color, odor, type, size grades assigned, based on the type, color and size as specified.

3.4 Each package so selected will also be checked individually for the presence of undesirable foreign matters, such as hair, fungal infestation, pest etc.

3.5 If any of the packages so examined does not conform to the laid down specifications or the contractual specifications, the lot may be re-

examined, on the written request from the exporter / packer, by drawing double the number of samples covering all the grades.

3.6 Only if all the packages on re-examination are found conforming to the required specifications the lot/ consignment will be declared export-worthy

3.7 However, on re-examination if the package is found to be defective only in respect to non-conformity with the declared grade, the exporter may be allowed to re-declare the grade, if he desires so, in order to accommodate the assessed grade in place of the declared grade in the lot. In such cases, the declaration of grades on the package and intimation is to be changed accordingly.

3.8 If on re-examination any sample is found defective for parameters other than that mentioned at 6.8 the lot will not be declared export-worthy.

4. Certificate of Inspection / Rejection Note.

If the lot(s) offered for inspection is (are) found to conform to the standards recognized for the variety, on the basis of the field inspection report, a certificate of inspection will be issued to the exporter in the prescribed pro-forma.

4.1 The certificate of inspection will be prepared in quadruplicate out of which the first three copies will be made available to exporter-the original for the customs use, the second copy for the use of foreign buyer and the third copy for exporter's use, and the fourth copy will be retained in the EIA office for records.

4.2 If the lot(s) is (are) found not conforming to the specification, a rejection letter will be prepared as per the prescribed pro-forma, the original of which will be made available to the exporter.

4.3 Subsequent to the certification, in the event of the consignment being found not conforming to the prescribed standards on inspection at any of the stages before export, as mentioned at 4.3, the certificate of the export

worthiness originally issued by the Agency will be withdrawn. In such cases the final decision will be taken by a team of officers, constituted by the in-charge of the Agency. For this purpose, the Agency officers will draw samples up to a maximum of 5% of the total number of the packages from the consignment(s). If any defect is observed, the entire packages of the defective lot will not be permitted for export.

4.4 A copy of the invoice, showing the details of each of the varieties of the dried fish maws in the consignment, duly endorsed by the person issuing the certificate, will be attached with each copy of the certificate of inspection giving cross reference to the certificate of inspection on such invoice.

5. Validity of certificate of inspection

5.1 The certificate of inspection will be valid for a period of 45 days from the date of issue of the certificate.

5.2 In case the consignment of dried fish maws is not exported within the validity period mentioned at 8.1, the exporter will be permitted to offer the same for reinspection. In such cases the exporter shall submit the intimation for inspection along with the prescribed fee and the certificate of inspection issued earlier to the EIA concerned.

5.3 If the consignment offered for inspection as per 8.2 is found to meet the specifications, a certificate of inspection will be issued with a validity period of 30 days from the date of its issue.

APPENDIX -6

Banks Name operating in CIS countries

Russia :

1. Banque Societe Generale Vostok
2. Delta Credit

Armenia

1. Central Bank of Armenia

Azerbaijan

1. International Bank of Azerbaijan
2. National Bank of Azerbaijan

Belarus

1. Belarussian Bank of Development
2. Belarussian Industrial Bank

Georgia

1. Alliance National Bank
2. United Community Bank

Kazakhstan

1. National Bank of Kazakhstan

Kyrgyzstan

1. National bank of the Kyrgyz Republic
2. JSC "Bank-Bakai"

Moldova

1. National Bank of Moldova
2. Moldova Agroindbank (MAIB)

Tajikistan

1. National Bank of Tajikistan
2. Eskhata Bank

Turkmenistan

1. Bank Sederat

Ukraine

1. National Bank of Ukraine

Uzbekistan

1. National Bank of Uzbekistan