

Overview of India-Nepal Trade: Trends, Trade Logistics and Impediments

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1. Introduction

This paper is basically a survey of recent studies done by other researchers. Thus, we have used secondary information for our survey. Since the various studies are done at different points, present situation at the border crossing in respect of impediment may differ from our survey finding. We intend to complement the study with field visit at the border points in due course.

2. Trends of India-Nepal Trade

Historically, India has been a major trading partner of Nepal. Of course, cultural linguistic and ethnic unity has played a major role in close for vibrant trade between these two neighbouring countries. Equally important factor has been the existence of all –weather trading route between India and Nepal since ages.

Table 2.1 shows the pattern of India's export/import with Nepal since 1991-92. As this table shows, India's exports to Nepal have increased nearly 20 times between 1991-92 and 2007-08. On the other hand, imports from Nepal have jumped by 22 –fold during the same period. In fact, the surges in exports and exports have occurred more sharply in recent years.

Table 2.1 India-Nepal Trade

(Values in US \$ Millions)

Table 2.1 India-πepai 11auc (varies in es φ ivinions)								
Year	Exports from India to Nepal	Index	Imports from Nepal to India	Index	India's Trade with Nepal	Index		
1991-92	77.1	100	28.5	100	105.6	100		
1995-96	160	208	49.1	172	209.1	198		
2000-01	140.8	183	255.1	895	395.9	375		
2001-02	214.5	278	355.9	1249	570.4	540		
2002-03	350.4	454	281.8	989	632.2	599		
2003-04	669.4	868	286	1004	955.4	905		
2004-05	743.1	964	345.8	1213	1088.9	1031		
2005-06	859.97	1115	379.85	1333	1239.82	1174		
2006-07	927.77	1203	305.7	1073	1233.47	1168		
2007-08	1506.79	1954	628.03	2204	2134.82	2022		
	Item	2003-04	2004-05	2005-06	2006-07	2007-08		
	xports to Nepal Overall Exports	1.05	0.89	0.83	0.73	0.92		
Share of Imports from Nepal in India's Overall Imports		0.37	0.31	0.25	0.16	0.25		
Item		2000	2006					
	xports to India e Global Exports	42.63	67.86					
	nports from India e Global Imports	36.56	61.79					

Note: Imports of crude oil (27090000 and petroleum products (27100093) are not included

Source: Ministry of Commerce, Govt. of India

Of course India being a large country in comparison to Nepal, the share of Nepal in India's overall exports/ (or imports) is expected to be small – it stands at less than one percent for exports and 0.25 percent for imports at the end of 2007-08. By contrast, the share of exports to India in Nepalese global exports stands at 68 percent in 2006 whereas the share of imports from India in Nepalese global imports is about 62 percent in 2006. In fact, between 2000 and 20006, the share of India in Nepalese overall trade has increased by about 25 percent both for exports and imports.

Table 2.2 shows India's top 10 exported item to Nepal at 2 digit HS code. To eliminate year to year fluctuation, the data is presented as average of two recent years, viz. 2006-07 and 2007-08. As this table, most of them are manufactured products. Among the agricultural commodities, only cereals and cotton figures in the top 10 exported items. Of the manufactured items, capital goods, and basic goods such as iron and steel etc dominate the list. The pharmaceutical goods occupies the position three which is expected as among the high-technological exports of India,

¹ Annex 1 gives the complete list of exported commodities from Nepal at 2 –digit level for recent years.

this is one sector where India's performance is relatively better among all the countries of the world.

Table 2.2 India's Top 10 Exported item to Nepal

Values in US \$ Mill

	HS Code	Commodity	2006-07	2007-08	Aver. of (2006-08)
		MINERAL FUELS, MINERAL OILS AND			
		PRODUCTS OF THEIR DISTILLATION;			
1	27	BITUMINOUS SUBSTANCES; MINERAL WAXES.	385.13	529.53	457.33
		VEHICLES OTHER THAN RAILWAY OR			
		TRAMWAY ROLLING STOCK, AND PARTS AND			
2	87	ACCESSORIES THEREOF.	57.71	111.62	84.665
3	30	PHARMACEUTICAL PRODUCTS	51.45	64.49	57.97
4	10	CEREALS.	39.04	74.31	56.675
5	72	IRON AND STEEL	30.54	81.04	55.79
		SALT; SULPHUR; EARTHS AND STONE;			
6	25	PLASTERING MATERIALS, LIME AND CEMENT.	51.43	59.45	55.44
		NUCLEAR REACTORS, BOILERS, MACHINERY			
		AND MECHANICAL APPLIANCES; PARTS			
7	84	THEREOF.	28.85	63.22	46.035
8	52	COTTON.	18.04	65.25	41.645
9	39	PLASTIC AND ARTICLES THEREOF.	21.9	42.39	32.145
		ELECTRICAL MACHINERY AND EQUIPMENT			
		AND PARTS THEREOF; SOUND RECORDERS			
		AND REPRODUCERS, TELEVISION IMAGE AND			
		SOUND RECORDERS AND REPRODUCERS, AND			
10	85	PARTS.	24.08	39.08	31.58

Source: Ministry of commerce, Govt. of India

Table 2.3 shows the similar data of India's top 10 imported items from Nepal.² Basically intermediate goods and certain food related items populate the lists. A few of the manufactured items such as plastic and articles thereof, man-made stable fibres, miscellaneous chemical items are imported from Nepal. To take advantage of tax regime, many Indian companies have made their base in Nepal to produce goods in Nepal which are then exported to India.

² Annex 2 gives the complete list of imported commodities from Nepal at 2 –digit level for recent years.

Table 2.3 India's Top 10 Imported item from Nepal

Values in US \$ Mill

	HS	•	2006-		Aver (2006-
	Code	Commodity	2007	2007-2008	2008)
1	72	IRON AND STEEL	18.91	95.37	57.14
		ANIMAL OR VEGETABLE FATS AND OILS AND			
		THEIR CLEAVAGE PRODUCTS; PRE. EDIBLE FATS;			
2	15	ANIMAL OR VEGETABLE WAXEX.	38.8	49.6	44.2
3	39	PLASTIC AND ARTICLES THEREOF.	25.67	61.76	43.72
4	55	MAN-MADE STAPLE FIBRES.	17.07	47.03	32.05
5	73	ARTICLES OF IRON OR STEEL	11.46	44.3	27.88
6	9	COFFEE, TEA, MATE AND SPICES.	11.8	37.98	24.89
7	22	BEVERAGES, SPIRITS AND VINEGAR.	16.57	27.89	22.23
8	38	MISCELLANEOUS CHEMICAL PRODUCTS.	19.39	19.23	19.31
9	54	MISCELLANEOUS CHEMICAL PRODUCTS.	10.44	25.48	17.96
		ESSENTIAL OILS AND RESINOIDS; PERFUMERY,			
10	33	COSMETIC OR TOILET PREPARATIONS.	18.32	16.61	17.465

Source: Ministry of commerce, Govt. of India

Last but not least, there is considerable informal trade between India and Nepal, despite an agreement of cooperation between His Majesty's Government of Nepal and Government of India to control unauthorised trade (1991). Some estimates show that the size of informal trade is significant both in the case of imports and Exports (Taneja and Pohit, 2006). While Taneja and Pohit (2006) estimates stands out to be little out of date as it refers to the years 2000-01, it is reasonable to expect that informal trade between India and Nepal still co-exist in sizable portion as the grounds for such trade still very much exist.

3. Interchange Points

Twenty-two land land border points have been specified as agreed routes for India-Nepal bilateral trade and for India-Nepal transit (see Table 3.1). Fifteen of these have been specified for Nepal's third-country imports/exports (Table 3.1).

Table 3.1

	Agreed Route for Mutual Trade		Transit points to Kolkata Port	Mode
1.	Sukhia Pokhari (Pashupatinagar)	I.	Sukhia Pokhari	Road
2.	Naxalbari (Kakarbhitta)	2.	Naxalbari (Panitanki)	Road
3.	Galgalia (Bhadrapur)	3.	Galgalia	Road
4.	Jogbani (Biratnagar)	4.	Jogbani	Road
5.	Bhimnagar (Setobandha)	5.	Bhimnagar	Road
6.	Kunauli (Rajbiraj)			Road
7.	Jayanagar (Siraha, Janakpur)	6.	Jayanagar	Road, Rail (NG)
8.	Bhitamore(Sursand) -	7.	Bhitamore	Road
9.	Sonabarsa (Malangawa)			Road
10.	Bairgania (Gaur)			Road
II.	Raxaul (Birgunj)	8.	Raxaul	Road, Rail (BG)
12.	Nautanwa (Bhairahawa)	9.	Nautanwa (Sonuali)	Road
13.	Khunwa (Taulihawe)			Road
14.	Barhni (Krishnanagar	10.	Barhni	Road
<i>15</i> .	Jarwa (Koilabas)	11.	Jarwa	Road
16.	Nepalgunj Road (Nepalgunj)	12.	Nepalgunj Road	Road
17.	Katerniyaghat (Rajapur)			Road
18.	Tikonia (Prithivipur)	13.	Tikonia	Road
19.	Gauriphanta (Dhangadhi)	14.	Gauriphanta	Road
20.	Banbasa (Mahendranagar)	IS.	Banbasa	Road
21.	Jhulaghat(Mahakali)			Road
22.	Dharchula (Darchula)			Road

Out of these 22 specified routes, the bulk of interchange takes place through 5 routes, namely (1) Raxaul (Birgunj), (2) jogbani (Biratnagar), (3) Nautanwa (Bhairahawa (4)Naxalbari (Kakarbhitta) and (5) Nepalgung Road (Nepalgunj). Container freight stations have been provided in Biggunj, Biratnagar and Bhairahawa in Nepal. Among them, only Birgunj is rail linked by Indian railways broadgauge railway system.

Nepal has been given the right to access to and from the sea for its third-country trade and for this purpose ports of Kolkata and Haldia on the east coast of India have been specified. These are riverine port situated at a distance of 128 km and 232 km from the sea, respectively. Kolkata port has draft limitation of 7.2 metres depending upon the tide. A slightly more draft of up to 10 metres is available at Haldia port. Nepal has also offered access to the ports of Mumbai, Nhava Sheva and Kandla port located on the west coast of India. These are deep seaports and can accommodate large ships

Raxual (India) – Birgunj (Nepal) is the most important route for bilateral trade between India and Nepal and its trade with other countries (third country trade). Further, Birgunj is the only rail-

linked dry port (Sirsiya Dry port) in Nepal with an inland clearance (container) depot equipped to handle both break-bulk and containerised cargo.

The timing of the Indian side of the border at Raxual is between 08.00-20.00 hours for vehicular and other traffic and custom processing. The land customs station is however officially open from 08.00-16.00 hours from Monday to Saturday, barring the second Saturday of the month and gazetted holidays. On the Nepalese side, the border is officially open from 04.00-20.00 hours while the customs working hours are from 10.00-17.00, with Saturday as a holiday. However, custom officials of both countries undertake appraisements beyond working hours and even on holidays on payment of overtime. There is little logic of maintaining different official working time on both side of the border. It is more appropriate that the processing time should be extended for longer hours.

4. Trade logistics

Cross-border infrastructure alone would not facilitate the movement of goods and vehicles between countries if non-physical impediments are not removed. Transport facilitation can only serve its purpose if based on harmonised legislation, institutions and practices, at bilateral, regional and international levels. In spite of consistent efforts and achievements over the years, significant differences continue to exist between SAARC countries in general and India-Nepal in particular in terms of their legislation, institutional arrangements and practices.

To facilitate measures for cross-border movements of goods, UNESCAP at its 48th session adopted resolution 48/11 of 23 April 1992 on road and rail transport modes. It recommended that the countries in the region, if they had not already done so, consider the possibility of acceding to 7 international conventions in the field of land transport facilitation, which were originally developed under the auspices of the Economic Commission for Europe (ECE:14 (a) Convention on road Traffic, 1968; (b) Convention on road Signs and Signals, 1968; (c) Customs Convention on the International Transport of goods under Cover of TIR Carnets (TIR Convention), 1975; (d) Customs Convention on the Temporary Importation of Commercial Road Vehicles, 1956; (e) Customs Convention on containers, 1972; (f) International Convention on the Harmonization of Frontier controls of goods, 1982; and (g) Convention on the contract for the International Carriage of goods by Road (CMR), 1956.

Most of the SAARC countries are yet to ratify these conventions. India has ratified only the first two of these conventions, namely convention on road traffic and convention on road signs and signals while Nepal is yet ratify any one of these. The absence of ratification to the international convention imply that trade between India and Nepal can not be governed by

international efficient system. They need to develop their own system for trading between themselves, which basically the practice that the both countries follow.

At present, India and Nepal is governed under the following three agreements:

• India – Nepal Trade Agreement

India and Nepal signed bilateral trade agreement "Treaty of Trade", on 6 December 1991. The Validity of this Treaty of Trade in its existing form stands extended for till 5 March 2012.

Under this treaty, India provides, on a non-reciprocal basis, duty free access, without quantitative restrictions, to the Indian market for all Nepalese manufactured articles barring short negative lists.³ Imports of such items are permitted only with a certificate of origin issued by Federation of Nepalese Chambers of Commerce and Industry. With regard to imports from India, the same are normally paid in Indian Rupees since the currency is fully convertible in Nepal. There are some specified products laid down by His Majesty's Government of Nepal, the imports of which from India are permitted in hard currency.

Furthermore, the excise duty levied on goods imported from India and paid for in Indian currency is refunded to His Majesty's Government of Nepal. There are several export promotion schemes which an Indian manufacturer can avail of while exporting to Nepal. To be specific, these schemes in effect provide compensation to the exporter in respect of excise duties on inputs and finished products.

This Treaty facilitated to a greater extent in favour of Nepal. By virtue of this Treaty Nepal can export to India without any quantitative restrictions on the one hand and, free of custom duties on the other. These provisions were definitely the positive aspects and also creating an appropriate environment for boosting up the Nepalese export trade.

A Protocol is also attached to this Agreement, which defines the operational modalities including the list of bilateral trade routes. India and Nepal also signed an Agreement to control unauthorised trade on 6 December 1991. This Agreement sets out certain procedures for the control and prevention of smuggling.

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³ These are basically alcoholic liquors/Beverages and their concentrates except industrial spirits; perfumes and cosmetics with non-Nepalese/non-Indian Brand names; and cigarettes and tobacco.

• India- Nepal Transit Agreement

In order to provide a transit access to Nepal, India and Nepal signed "Treaty of Transit" on 5 January 1999. In tune with time, this treaty has been modified subsequently under Indo-Nepal Treaty of Trade, 2002. As a result, India provides maritime transit and supporting services and facilities to Nepal at Kolkata and Haldia ports, which are located in West Bengal state of India. Nepal has also offered access to the ports of Mumbai, Nhava Sheva and Kandla port located on the west coast of India. These are deep seaports and can accommodate large ships. A Protocol to the Treaty of Transit between Nepal and India specifies detailed operational modalities including entry and exit points to and from India for the transit trade of Nepal. Besides, both the countries signed a Memorandum to the Protocol to the Treaty of Transit which specifies the detailed procedures to be applied to imports to, and exports from, Nepal.

The transit facilities provided by India to Nepal under the Treaty of Trade and Treaty of Transit include the following:

- 1. India allows freedom of transit for Nepalese third-country trade across its territories through routes mutually agreed upon,
- 2. Permission for the movement of Nepalese trucks to and from the merest railway stations to pick up the export and transit cargo to Nepal,
- 3. Traffic in transit is exempted from customs duty and from all transit duties or other charges, except charges for transportation and service charges,
- 4. Facilities are provided for warehousing and for storage of goods in transit awaiting customs clearances before inward transportation to Nepal, through Indian Territory.

However, there is a provision for classifying a few goods transiting through India as sensitive. These comprise products that are imported both by India and Nepal, and for which Nepalese import duties are lower than the corresponding Indian import duties.

• India-Nepal Rail Services Agreement

India and Nepal entered into a Rail Services Agreement for operating and managing the rail services for Nepal's transit trade as well as bilateral trade between the two countries. Specifically, it specifies transit trade between Kolkata / Haldia ports in India and Birgunj in

Nepal via Raxaul in India and between stations on Indian Railways and Birgunj via Raxaul for bilateral trade.

Revised Indo-Nepal Treaty of Trade

In October 2009, India and Nepal signed a new Treaty of Trade, which supersede the Treaty of Trade concluded between the two countries on 6th December 1991, as amended or modified from time to time. Like the earlier treaty, this would in force for next 7 years and has several protocols annexed to it. This has further simplified the barriers of trade between India and Nepal.

A number of floriculture products, atta, bran, husk, bristles, herbs, stone aggregates, boulders, sand and gravel in addition to the existing ones can also be imported duty-free into India as per the new treaty.

This treaty has not only made export refund procedure simple but has also laid down clearly that no discrimination will made on the basis of payment modality or currency of payment. As per the old trade treaty signed 13 years ago, exporters to Nepal are not refunded excise duty unlike exports of goods in convertible currency. In the case of India-Nepal trade, Indian exporters get an exemption on customs duty to be paid on import of items equivalent to the excise duty paid by them, which is reimbursed to the Nepalese government by the Indian government. For many products, the excise duty paid in India is much higher than the Customs duty exemption that the products get in Nepal and, therefore, Indian set ups are net losers, the government official explained. When the new dispensation sets in, exports to Nepal will be treated at par with exports that is carried out in convertible currency and, therefore, get all refund benefits.

Under the new treaty, all goods of Indian or Nepalese origin shall be allowed to move unhampered to Nepal or India respectively without being subjected to any quantitative restrictions, licensing or permit system with the following exceptions: (a) goods restricted for export to third countries, (b) goods subject to control on price for distribution or movement within the domestic market, and (c) goods prohibited for export to each other's territories to prevent deflection to third countries. The treaty has emphasized that there should be flow of information regarding the list of commodities which are subject to restrictions/prohibitions.

The issue of Phytosanitary certification is a problem area. To prevent harassment in this respect, it has been decided that both parties shall grant recognition to the Sanitary and Phytosanitary -certificates (including health certificates) issued by the competent authority of the exporting country, based on assessment of their capabilities, in the area of food and agriculture product (including primary, semi processed and processed), and shall allow entry

of these products into their markets on the basis of these certificates subject to meeting the mandatory requirement of the importing country.

The rule of certification of origin is a contentious issue in respect of Nepalese export to India. The new treaty has attempted to address this issue. Under the new treaty, export of consignments from Nepal accompanied by the Certificate of Origin will normally not be subjected to any detention/delays at the Indian customs border check posts and other places en route. However, in case of reasonable doubt about the authenticity of Certificate of Origin, the Indian Customs Authority may seek a clarification from the certifying agency, which will furnish the same within a period of thirty days. Meanwhile, the subject consignment will be allowed entry into India on provisional basis against a bond i.e. a legally binding undertaking as required.

The treaty has also paved way for bilateral trade by air through international airports at Delhi, Mumbai, Kolkata and Chennai. Also, the agreed route of mutual trade has now been extended 27 border points.

4.1 Inland Container Depots (ICD)

Three well designed ICDs have been opened: the rail ICD at Birgunj, and road ICDs at Bhairahawa and Biratnagar. A fourth ICD is planned at Kakarbhitta. The ICDs were established to handle third country transit traffic but now also handle bilateral trade. Out of these, only Bigunj ICD is capable to handle cargos by both rails and trucks.

The ICD Birgunj is a rail connected terminal, around 5.4 kms away from the Rail head of Indian Railways Raxual station, with the facilities of handling all types of traffic including containers, bulk, and break bulk cargo. It covers an area of 38 hectares and is a green field project that has; six full length railway lines, covered goods shed with an area of 405*26.5 m, CFS 205*35 m with 231 ground slots, container yard measuring 685*64 m with ground slots for 1568 TEUs, parking for 250 trucks and 50 trailers, high mast illumination for round the clock operation, secured high boundary walls with barbed wire fencing at its top. The equipments include; three reach stackers for handling loaded containers and one for empty containers, fork lifts, trailers and cranes. The terminal also provides for efficient customs clearances through automation of the terminal with the application of Automated Systems of Customs Data

(ASYCUDA) and the customs office is projected as the model customs in Nepal.⁴ Besides, information on container positioning and location of cargo are made available through the websites. Thus the ICD reflects many aspects of a modern multimodal terminal.

In 2002, Government of Nepal opened up the services of ICD development and operation for the foreign investors. Accordingly, the ICD operation in Nepal was leased out to the joint venture company for a period of 10 years under the concessional leasehold agreement. The liberalization of trade logistics services has bought significant changes in the pattern of moving the traded goods. The successful operation of ICDs in Nepal has helped in bringing down the cost of transaction, although, full realization of the benefit is still to be achieved. Nepalese freight forwarders are joining hands with their counterparts abroad for managing the delivery of goods from seller to buyers.

Freight forwarding is now growing as the industry that has substantial stake in the operation of international trade of Nepal. Freight forwarders in Nepal are eyeing to the total logistics services rather than simply operating as the forwarders and are seeking for a suitable legal ground for their operations.

4.2 Transport Services

4.2.1 Rail

As mentioned earlier, direct rail transport into Nepal is only possible at one crossing, Raxaul-Birgunj. While rail transport has several advantages, it is limited by IR's commercial strategy of handling only train load traffic (normally 60 wagons, each with 55 ton capacity, i.e. ≈3,000 tons). Since bilateral trade is generally conducted in smaller consignments, road transport is generally the preferred medium of transport. There is another bottleneck that has been imposed by IR only covered, flat (container) and tank wagons. Open wagons are not permitted to cross on security grounds.

An alternative to road for smaller consignments is domestic containers and movement by Concor; procedures for such movements have been established. There is little indication that significant containerized traffic has developed, but Concor did run a train with 70 containers of polyester fiber from Nagpur to Birgunj in May, 2006. While bulk loads are railed, the cargo is moved across the border by Nepalese trucks.

⁴ However, there is difference of opinion regarding the actual application of ASYCUDA at Birgunj. The studies by other researchers points that ASYCUDA is only used its revenues and statistics function rather than custom clearance, which is still primarily paper based.

Presently, an average of 26-27 goods trains in a month is running on Raxaul-Birgunj section. At present, only covered wagons and container trains are permitted to run on this section.⁵ Table 4.1 indicates the volume of inward/outward traffic in recent years. It seems that outward traffic is much more than inward traffic.

Table 4.1 Quantum of Traffic (in Tonnes)

Year	Inward Traffic (To Birgunj, Nepal)			Outward Traffic (From Birgunj, Nepal)			Total
		Break Bulk	Total	Containerized	1 1 1	Total	
2004-05	73826	Nil	73826	1180	2300	3480	77306
2005-06	175126	22805	197931	1318	0	1318	199249
2006-07	197838	43906	241744	1941	28625	30566	272310
2007-08	233991	23208	257199	2004	228506	230510	487709
Total	680781	89919	770700	6443	259431	265874	1036574

Table 4.2-4-3 gives the breakup load of inward and outward rail traffic between India and Nepal. As these tables show, there are more empty wagons for inward traffic. Thus, there is scope of shifting some Nepal bound cargo movement by road to rail.

Table 4.2 Statistics of Movement/Loading of India bound Traffic

Year (07-08)	Type of Traffic - OUTWARD TRAFFIC (From Birgunj, Nepal) Year 2007-08						
	Container Traffic i	wagons	Other than container/break-bulk cargo in				
				covered wagons			
	No. of Trains	No. of Flat/Box wagons		No. of Trains	No. of Wagons		
		Loaded	Empties		Loaded	Empties	
Total	164	6933	50	99	3623	306	

Table 4.3 Statistics of Movement/Loading of Nepal bound Traffic

	Table to Sample of May among Dough grand Trains								
	Year (07-08)	Type of Traffic - INWARD TRAFFIC (To Birgunj, Nepal) Year 2007-08							
		Container Traffic in	wagons	Other than container/break-bulk cargo in					
					covered wagons				
		No. of Trains	No. of Flat/Box wagons		No. of Trains	No. of Wa	agons		
Ī			Loaded	Empties		Loaded	Empties		
	Total	164	6938	2	99	374	3555		

While it is true that container movement has picked up, its role is still limited. India-Nepal trade is still dominated by small players. The lack of economic of scale implies that the stake-holders would prefer to send their merchandise by road. On the other hand, Indian railways are facing a problem of supply bottlenecks. With high economic growth, the demand of cargo movement has significantly within India. Thus with shortage of wagons, Indian railways has less incentive to increase the frequency of containerised train on this route, especially since all the

⁵ That is open wagon are not allowed in this route.

wagons on this route are not filled up. It is a catch- 22 situation and would remain in this state for some time.

4.2.2 Road Transport

The Nepal – India border is one of the very few in South Asia where the trucks of one country can cross the border and operate in the other. Indian trucks can enter Nepal duty free for 72 hours to deliver cargo. This is sufficient for the trucks to drive to Kathmandu, unload and return to the border. Transshipment is thus not required. Except for trucks carrying transit cargo to/from Kolkata, Nepalese trucks do not operate into India, beyond the nearest town/railhead. Partly this may be the result of the ultimate destinations being beyond the 72 hour operating limit, but mainly, it is the result of problems/costs caused by the Indian state authorities.

Many Indian transport companies provide through services to Nepalese destinations for full truck load and up to the border for less then truck load consignments. Some major Indian transport companies have registered subsidiaries in Nepal to facilitate business. The companies with offices in Kathmandu also act as custom clearing agents. They collect the necessary documents and funds for the custom duties from the importer, clear the consignment and deliver it to Kathmandu.

Truck transport, within India, has no more, and no less, difficulties than domestic Indian trucking; long sections of congested roads in poor condition, delays at state border crossings, etc. Unfortunately, most of the main bilateral trade routes pass through Bihar, where state check posts may take up to eight hours to negotiate and many roads are in such poor condition that speeds are reduced to 20 kph. For example, the trucks carrying third-country cargo from kolkata/Haldia port take four days to reach ICD Birgunj in Nepal. Ideally, a distance of 668 km should not tale more than 2-2.5 days. Similar delay takes place for cargo movement from other cities: 5 days from Delhi to Birgunj (1015 km), 6 days from Ludhiana (1320 km) and 6½ days from Ahmedabad (1676 km).

Overloading of vehicles is a common practice. As a result, this allows the enforcement officials to collect speed payments to allow this practice. The delay also takes place in various checkpoints within India, which can imply a waiting period of 3-4 hours in spite of payment of speed money. In some areas in Bihar, the drivers avoid travelling at night due to poor security or travel in convey.

Transport rates depend on the availability of trucks, the state of the market, whether there is a round trip load, type of cargo and likely problems en route, such as elections or strikes. No transport company offers standard rates for full truck loads, rates are quoted on daily basis.

As World Bank's study of Trade and Transport Facilitation in South Asia indicates, there are expenses for trucks entering Nepal. The delays at customs are calculated and the cost added to the quoted price. The Nepalese government has provided duty free entry but there are local taxes/expenses. The first Village Development Committee (VDC) from the border can charge taxes – these can be as low as NRs 250 or NRs 1000 or higher. Other VDCs enroute try to extort taxes. The Indian trucks have to pay the road toll and informal payments to the traffic and other police personnel (the amount depending on the negotiating skill of the driver and the commodity carried). Another cost is the Kabadi Tax levied by local District Development Committees. Legally the tax is restricted to the export from a district of scrap metal, machinery, used bottles and other junk materials. In practice, the contactor, collecting the tax, tries to collect the tax from any vehicle moving along the roads in the district. These contractors may hire "goondas" to stop the vehicles to collect payment. These costs may add IR 2,000 to the truck trip.

From the above discussion, it is clear that even though trucks are allow to move across border, impediments exist which may indirectly add to the transport cost. It is interesting to compare the custom of the developed countries in respect of cross border movement of trucks.

In the advanced regions of the world, the main type of vehicle for road-based movement of freight is the "semi-articulated truck", or "semi" for short, in which the short tractor (containing the driver cab and the engine) pulls the long trailer. The trailer can take various forms such as a standard ISO container carrier, tarpaulin-stretched carrier, refrigerated carrier for perishables, specialized chemical or petroleum carrier, automobile carrier, and so on. Of course, many of these trailers can be sealed securely under the TIR regime, and TIR has developed ways of ensuring security and tamper-resistance of specialized trailer-carriers that cannot be locked.

Most advanced nations permit separate ownership and registration of the tractor and the trailer in a semi-articulated vehicle. This allows the tractor (the cab) to be owned and operated by all types of firms including small companies, including often a driver-owner, while the large and expensive trailer is usually owned by large transport companies, freight forwarders, shipping lines, and leasing companies. Such separation of ownership and registration makes road transport highly flexible. Tractor-cabs can disengage a trailer for downloading or loading – processes that may take time – at a docking platform and pick up another trailer load for transport.

Some shipping companies from EU and its neighbouring nations keep electronically updated lists of empty trailers available at various cities. Shippers as well as tractor-cab owners can examine such electronic web-based of phone-based information and then plan flexible and ad hoc trip itineraries.

In India or Nepal, so far no such clear system of separate tractor and trailer ownership and registration exists – either at the central (federal) or the state levels. To remove impediments, this is a least cost approach for either country to follow this practice of ownership and registration of the two parts of a semi-articulated freight transport vehicles.

4.3 Custom

Indian and Nepalese Customs have both introduced computerized systems. However, they have had relatively limited impact on streamlining bilateral trade for the following reasons:

- ICEGATE, the Indian customs clearance system, has only been introduced at Raxaul
- ICEGATE, at Raxaul, only handles exports from India to Nepal; imports from Nepal and third country transit trade are still cleared through the manual system
- ASYCUDA, the Nepalese computerized system, is used primarily for its revenue and statistics functions rather than customs clearance which is still primarily paper based.
 Moreover, ASYCUDA is only operational in Birgunj and that too only for calculation of revenue and other administrative purpose.

Customs formalities in remaining LCSs are mostly handled manually. The existing EDI system of India also suffers from certain shortcomings which add to the transaction costs. For example, though the filing of declarations has been made possible online, a hard copy of the declaration is generated by the system, albeit at a later stage, and signed for a variety of legal and other requirements, both for the importer and Customs. Other supporting documents are also submitted for verification of government authorities and their agents. Thus, many shortcomings associated with documentation continue to exist under the present EDI system.

At present, large numbers of documents, copies and signatures are still required. According to AITD, the numbers of documents, copies and signatures required for India customs are respectively 12, 46, and 138 whereas the same for Nepalese customs are respectively 14, 50, and 20. By contrast, China and Nepal bilateral trade takes place with few document - for exports to Nepal, Chinese Customs require only the truck waybill and the invoice whereas Nepalese Customs requires only the invoice and this is only used if the value is higher than the predetermined level, published by the Customs Department. Nepalese Customs monitors how payment is made.

The present system is cumbersome and time consuming, and could be improved significantly. Clearance takes between half – one day, though the time may be longer when there is very heavy traffic. This happens because the agent gets the documents processed prior to the arrival of goods.

A principal reason for excessive documentation, within India, is to ensure that goods declared for export are exported and there is no leakage of duty and excise. The procedures for container have the characteristics of the movement of uncleared imports from port to inland ICDs

5. Impediments to India-Nepal Transit Trade

While in recent years, several steps have been taken to streamline the movement of cargos between India and Nepal, there is still scope for several improvements.

Firstly, the containers received at Kolkata/Haldia port require fresh booking for their onward dispatch to a destination in Nepal. This leads to custom checking, fresh insurance of goods, fresh clearance from various agencies, all of which leads to delay ad transaction costs. The brief procedure is shown in Table 4 for inward and outward India/Nepal trade.

Moreover, according to the Kolkata Port Trust and the Customs Preventive Office, a small number of containers are opened for inspection at the port on landing. Containers bound for Nepal, once sealed by customs, do not have to be inspected again en route, if the seal is intact.

Table 5.1 Procedure for India-Nepal Transit Trade

Direction	Steps for Processing documents
Nepal to India	Processing Customs Transit Document (CTD) at Birgunj/Biratnagar and the
	other border customs as designated by Nepal-India treaty of transit.
	Clearance at Jobgani/Raxaul Customs and the other border customs as
	designated by Nepal-India treaty of transit
	Final approval of CTD at Kolkata Customs
	Furnishing CTD to Kolkota Port Trust
India to Nepal	CTD processing at Kolkata
	Clearance at Raxaul/Jogbani Customs and the other border customs
	as designated by Nepal-India treaty of transit
	Clearance at Birgunj/Biratnagar and the other border customs as
	designated by Nepal-India treaty of transit with duty payment
	Final CTD processing at Kolkata (upon receipt of communication
	from Nepal Customs officials)

Source: UN Study: Transit Transport Issues in Landrocked and Transit Developing countries

Understandably, a combined – transport –bill- of- landing would simplify the procedure. In that case, custom examination would amount to checking whether the seal is intact or not. To create this environment, government of Nepal need to legislate a multimodal transport act in tune with international practices and the Protocol to the treaty of transit between India and Nepal would also need modification.

Rail transport of containers has several advantages over road transport in terms of lower transit time, cost and also scope of facilitation payment gets drastically reduced. According to Asian Institute of transport Development's study of Trade and Transport Facilitation, the transit time between kolkata and Birgunj by rail, on an average is less than 3 days with no hassles enroutes compared to 4 days in case of road with bottlenecks at each checkpoints. In terms of money, it amounts to a saving of more than US \$ 450 in transportation charges.

6. Logistics Chain Analysis

6.1 Routes & Modes

The commodities under study are exported to Nepal from all over India. However, nearest market centre from where the merchandise are exported in our survey are basically from Kolkata and Delhi. Good under study are carried usually by road both for imports as well as exports. All of them have preference for the Rauxal/Birgunj trading point because of the available facility and the road condition. The transporters from Kathmandu prefers to use Birgunj/Rauxal border point for goods to be exported to India in case where the destined market in Kolkata in Eastern India or Delhi in Northern India. It seems that facility as well as road conditions are the driving point for choosing the border point than the shortest distance!

Legally, Indian trucks can go to Kathmandu and Nepalese truck can travel in India. However in reality, transhipment to Nepalese (Indian) truck for destination in Nepal (India) takes place at border point. There exist a number of reasons for it. We have discussed some of these local/state level problems in section 4.2.2. However, it must be mentioned that 72 hours time limit to deliver cargo in the other countries have made the treaty in favour of Indian trucking industry. This clause ensures that Indian truck can deliver merchandise in the destined point in Nepal. By contrast, it is not possible for a Nepalese truck to deliver cargo in the destined point in India because of large size of India. Thus, transhipment is almost a must for good coming from Nepal to India. The Nepalese trucking industry is obviously not happy with this system which allows more business opportunities for Indian trucking industry. The governments at the local level in either countries as well as local ruffians also try to extract taxes from the truck drivers as discussed in section 4.2.2. Thus, trucks drivers are at the mercy for all these pressures. Only way to circumvent this problem is joint lobbying by trucking industry in either country. This can happen if the stake-holders in both countries foresee mutual gain. This may be possible if 72 hours restriction is removed. Nowadays, all long distance truck has double drivers. In a situation

like India-Nepal truck movement, there is a need local drivers/helpers after crossing of border to tackle local harassment problem.

The conditions of the India national highway have generally improved. The truckers generally prefer National Highway due to security issues and road condition even if there exist shorter route. However, the connecting road to Rauxal is quite bad in patches and is narrow in parts due to encroachments. This causes traffic congestion resulting in delays in the delivery of consignments. There is also congestion on road from Birgunj to Kathmandu. In India, there are problems from police personnel patrolling the highways who invariably put up barricades on the roads in the name of checking to take bribes. As a result, the transportation charge to Birgung border from Kolkata is higher than the same distance within other parts of India. Furthermore like transporter carrying goods to Petrapole border point of Bangladesh, transporter on this route charges both way rate for carrying good to Rauxal. The average cost per tonne km of common freight in India is about US \$1.00. By contrast, transporters for carrying a general commodity like fabrics, which does not, required specialised handling, charges about US \$ 10 per tonne km on the Kolkata-Rauxal route. It must be mentioned that the charge is significantly high because the route has to cross eastern Bihar, the condition of road as well as the state of governance of which is bad. On the other hand, the average cost per tonne km of carrying goods on the Delhi-Rauxal route is only US \$ 6.

There is also shortage of transporters in Kolkata willing to take merchandise to Rauxal/Birgung. The containers are usually not used for the commodities. Storages needs are generally absent for these commodities. However, a few of our respondents have used 20 feet container for exporting textile and for importing vegetable ghee. The later need is basically to protect the product from sunlight. We have not captured any multimodal operations for this commodity.

When proved why rail is not used for transporting goods from/to Kolkata, the respondents replied the lack of availability of sufficient goods trains between Kolkata/Rauxal. Also, there seems to a lack of knowledge regarding the frequency of good trains' services between Kolkata and Birgunj.

Structure of Indian's Freight Forwarding Industry

The globalization of the Indian economy has harnessed a growth in India's freight forwarding industry. According to the perception of the stake-holders, about 40-45% of the business is controlled by large firms. There are some large freight forwarders who have their own vehicles and containers, ships, and have leasing system of railway wagons to carry their containers. The

large players are reluctant to accept small consignments. By contrast, the small and medium freight forwarders take containers on lease from the container owners. They take consignment from the party, get the consignment cleared by customs and then hand over the consignment to the container owner to be sent to the destination. Unlike the large players, the smaller ones do not have associates across the border. If necessary, they tie up with a small Nepalese company. Unlike the big players, they do not have tracking facility for consignments. Also, they are unable to tackle awkward situation if arises. Regarding the pricing of the service, the market is very competitive and the large firms do not dictate the price formation. In general, there is 20 percent spread between the prices charged by the large service providers and the small ones. What is then the driving force between the choice of small and large firms? The efficiency of the services, market goodwill, and credit leverage are the main driving forces for choosing the service providers. The quality and timeliness of the services get top priority than prices in choosing the service provider. This is expected since meeting the target delivery date is paramount for business goodwill of an exporter/importer.

6.2 Transport and other Infrastructure

The volume of trade between India and Nepal has increased rapidly over the last ten years. However, the infrastructural facilities at the border points or LCS have not grown at the same place. As the result, the quality of service at the LCS is bound to falter. Our observation is basically drawn from perception of the traders who conduct trade through Rauxal and from the field visit at Rauxal/Birgunj.

The approach road to Rauxal is narrow and remains congested all the time. About 5 km of road near LCS is in real bad shape. The condition of the road in the There is no segregation of traffic (cargo versus people) leading to border point causing congestion in effect. With the development of rail-liked Brigunj ICD, most of the containerised traffic has moved off road to rail. However, the growth of the volume of traffic by road in recent years has more than make up for the shift in traffic. As a result, no perceptible improvement is evident.

With regard to physical infrastructure like bank, weight bride, currency exchange, security, warehouse, shops, hotels, restaurant, cyber cafe, toilet facilities, facilities exist but they are not sufficient to cope with the demand of service required. To be specific, toilet and washing facilities, capacity of warehouses, and availability of banking services needs immediate improvement. The number of bank available for depositing custom duty is few leading to queue causing unnecessary delay in clearing merchandise. Moreover, more fuel stations and vehicle service stations are required near LCS to cater to the demand.

There is insufficient number of cranes for container handling, even though three additional cranes have been introduced recently. Often, there is incidence of crane breakdown. There is shortage of trained manpower for loading/unloading of containers. There is shortage of warehouse space.

The rule of the law is poor in Bihar. So, it is not surprising that exporter/importer have aired grievances regarding the security issues. Like in the Petropole border, organised crime syndicate or "mafia" has a presence in Rauxal. However by and large, there is peaceful co-existence, probably due to payments by the traders, which they are hesitant to admit.

The power cut is very much a fact of life in Rauxal, which creates problem for working during evening/night. There is no testing laboratory at LCD, which is detrimental to the trading environment.

It is not that nothing has happened in recent years for facilitating business. The availability of cranes has increased which has helped in cargo handling. The road to LCS has been widened. Infastructure facilities at LCS (Rauxal) has been developed and are handling 30% extra consignments than three years back. Parking space has increased. It is now possible to park about 550 trucks instead of 300 trucks earlier. Still parking problem persists. To some extent problem persists because no authority is involved to ensure that trucks are parked in a systematic way.

On road harassment by local youth has stopped practically due to the action by police personnel. The frequency of congestion has decreased in recent years.

In recent years, there have been two developments which have helped in inland transportation. Firstly, the improvement in national highways which gas ushered faster movement of cargo across road. The security of national highways has increased even though there are pocket still in Bihar where trucks travels in convoys. Secondly, railways have been giving priority to goods trains. Recently the railway authorities have decided to issue a timetable for goods trains. If the goods are not delivered in time, the onus would lay on them. As a result, container movement has speeded up. The plans are also there to run container freight trains at an average speed of 100 km per hour. With the increase in speed and an assured track, the travel time for container freight would also be reduced.⁶

What are the facilities that need to be taken care of? Firstly, operationalising EDI fully for all transaction (export/import) at Rauxal/Birgung is must for facilitating business. It should be seen that there is no link failure of the EDI system. This would help in reducing congestion at border point. The space in the custom bonded area as well as parking space need to be increased. More cranes should be introduced for faster cargo handling. The machines should be maintained

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⁶ http://timesofindia.indiatimes.com/city/ludhiana/Timetable-for-freight-trains/articleshow/5293272.cms

properly and regularly to prevent breakdown. More bank facilities, laboratory for testing at LCS are also required for faster movement of cargo. Presently there is no cold storage for storing perishable item at LCS. This facility needs to be developed.

Most of the stake-holders have reported shortage of manpower for load/unloading activities. This seems to be a surprising given the fact there is lack of employment opportunities in border town like Rauxal. It is most probably due to the fact that organised labour syndicate do not allow outsiders to be employed.

There should be deployment of more BSF personnel at least from 1 km stretch to LCS to stop crime. Mafiaraj should be dealt strictly and for this reason more security personnel should be deployed.

To reduce pressure from Rauxal, stake-holders have suggested development of the route, India to Nepal via Nepalganj, as an alternative.

6.3 Customs

Based on the types of trade transaction taking place, the document may differ. However for export transaction, the following basic documents are required for our product under study: invoice, packing list, shipping bill. On the other hand, the following documents—invoice, packing list, insurance copy, certificate of origin, consignee's authorisation, bill of laden in original, bill of entry, lab test report – are required for imports.

The effective working hours of custom is about 9-10 hours each day. The absence of uninterrupted EDI system is a problem for custom clearance. At present, EDI system is supposed to use for export at Rauxal. However frequently there is link failure leading to manual processing causing delay. Import is processed manually and thereby is a problem area. Daily about one working hour is lost due to server or printer problem.

The availability of officials during the office hours have increased. The pro-activeness of vigilance department of the custom has also helped to check the prevalence of speed money in transaction. The custom officials have become more knowledgeable about rules and regulations. The custom officials now respond to the queries faster than earlier. Computers with EDI system have started functioning.

The custom bonded house has less space than required. The laboratory for testing is located far away (at Patna) from LCS so it takes time to get the test report. As result, cargo movement is held up. The custom officials usually send samples for testing when 8/10 samples are collected. This is surely not a way to facilitate trade.

No doubt, the custom procedure has become less cumbersome over the years. The onset of online system of filling of shipping bill is boon to the traders. Compulsory checking has been replaced with somewhat random checking system.⁷

Nowadays, custom classification code, rule of origin certifications, excessive check due to security reason, clearing consignment at custom, and competence of custom officials are not major problem areas. The simplification in the rule of certification of origin is a major development. Presently, custom classification of product is well defined and is less subject to misinterpretation. The custom officials are given regular training. So, they are now aware of the trade policies regarding what good required 'no objection certificate' from what department.

However, there are still a number of bottlenecks. Since there is no citizen charter of time required for each step of operation, custom officials are not accountable if there is delay in clearance. Speed money is the norm. Without it, custom clearance is really a bottleneck. Strict action and frequent check by vigilant department would help to reduce the menance. Custom officials do not adhere to the office timings. They turn up late and leave early and hence effective working hours get reduced. However, one good thing is that nowadays higher custom officials are more approachable and are more proactive to resolve dispute. The grievance redressal cell of the customs is now more active and hence takes shorter time to settle disputes than earlier times. Sometimes, the officials deliberately misinterpreted the laws to earn more bribes. If dispute settlement is done by any neutral organisation, then the misinterpretation probably would not exist.

6.4 Standards

There has been some improvement in this respect. However, the test report for import of goods from the other side of the border (Nepal) is not always respected. Often, the custom would send sample to lab in Indian side for testing which is against the spirit of India-Nepal treaty. The high-handedness of the Indian custom officials should be immediately stopped for good neighbouring relation. The officials should understand that Nepal is an independent nation!

The application of standard has given the custom official has another way to harass the traders. There is urgent need to make the various standards transparent at one place. Issuing a notification separately for each is not enough. It should be put up in website at one place would make the job easier for all stake-holders.

6.5 Trade Policy and Business Mobility

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⁷ Presently, only 10 percent of total consignments cleared is checked instead of 30 percent five years back.

They are not an issue in respect of India-Nepal trade

6.6 Cost Elements

The cost element of trade with Nepal is shown in Table 6.1-6.4. It must be said that given few observations, these numbers are only indicative and subject to respondent's bias depending on his/her personal experience.

Table 6.1-6.2 report our finding in respect of exports. As Table 6.1-6.2 indicate, the extent of bribe is large and is much more than official charge. At all stage transaction, it exists. Inland transportation for Kolkata to Rauxal through national highway is subject to harassment by officials. Of course as truck are customarily overloaded and are wrong side of the law, they do not mind to pay bribes for transporting goods. Also, there is traffic restriction for movement of trucks within city limits which falls on the way. To save time, drivers invariably pay policemen bribes to bypass this law.

Table 6.1: Cost-Time Analysis for Exports

Commodity: Billet, Route: Kolkata to Nepal via Rauxal/Birgunj Border by Truck

Commounty, Direct, Notice, Norwala to Ivepai via Kauxan Dir gung Doruct by Truck							
			Cost		Time taken		
					(/hours)		
Details	Unit	Official	Unofficial	Total			
	At Or	igin					
Pre-Shipment Activities*	US\$ /ton	\$ 2-3	\$ 0.05	\$ 2.00-3.05	12-24		
C	rigin to LCS/P						
Distance: 900 km	Mode of	Transport: Tru	ıck				
	T						
Transport from origin to port/LCS	US\$/Km	\$ 10-15	\$ 4-5	\$14-20	72		
Trans-shipment at Border (if applicable)	US\$/Km	\$ 3-4	\$ 1-2	\$ 4-6	8-12		
	At Port/LCS						
Custom Clearances	US\$ /ton	0	\$ 2	\$ 2	2-6		
Inspection	US\$ /ton	\$ 0 -1	\$ 0-1	\$ 0-1	4		
Handling Charges	US\$ /ton	\$ 2-3	\$ 1-2	\$ 3-5	5 -6		
Port Charges	US\$ /ton	N. A.	N. A.	N. A.	N. A.		
	To Foreign P	ort/Border					
Distance: Moo	de of Transport:						
Transport to Foreign port/ Border	US\$/Km	N.A.	N.A.	N.A.	N.A.		
Trans-shipment at Border (if applicable)	US\$/Km	N.A.	N.A.	N.A.	N.A.		

Table 6.2 indicates that total transport cost including transhipment and bribes come to about US \$ 18-26 per km. Unofficial transaction cost for export is in the range of US \$ 8-12.05 per ton against official transaction cost of US \$ 4-7 per ton.

Table 6.2: Total Costs for Exports

(Derived from Table 6.1)

Cost	Unit	Amount
Total Transport Cost (includes transhipment, bribes)	US\$/Km	18-26
Total Transaction Cost	US\$/ton	12-19.05
Total Transaction Cost (Official)	US\$/ton	4-7
Total Transaction Cost (Unofficial)	US\$/ton	8-12.05

Table 6.3-6.4 gives similar estimates for import of vegetable ghee from Nepal by truck through Birgunj/Rauxal route. The time element of transporting good to Kolkata comes to about 72-96 hours. The transportation cost amount to US \$ 13-16 per km. Total transaction cost comes to about US \$ 19-26.1 per ton, out of which speed money amounts to US \$ 5-8.1 per ton. It must be noted that there is a positive port charge in case of ghee as the product needs warehousing facility. Since it is as food product, the consignment has to wait unless custom is satisfied with report of the testing laboratory.

Table 6.3 Cost-Time Analysis of Imports

Route: Kathmandu to Kolkata via Rauxal/Birgunj Border Commodity: Vegetable Ghee

		Co	st		Time taken	
Details	Unit	Official	Unofficial	Total	(hours)	
	Pre-Ar	rival				
Pre-Arrival Documentation*	US\$/ton	4-5	2.0-2.05	6-6.05	4-6	
At Port/LCS						
Custom Clearances	US\$ /ton	5-6	2-2.05	7-8.05	8-9	
Inspection	US\$ /ton	0	0-1	0-1	4-4.5	
Handling Charges	US\$ /ton	3-4	0-1	3-5	4-6	
Port Charges	US\$ /ton	2-3	1-2	3-5	12	
	Transport to N	earest Point				
Distance:	Mode of Transpor	rt:				
Transport to nearest point	US\$/Km	12-14	1-2	13-16	72-96	

^{*}Pre-arrival documentation includes obtaining bank related documents, assembling and preparing import documents.

Table 6.4 Total Costs for Imports

(Derived from Table 6.3)

Cost	Unit	Amount
Total Transport Cost (includes bribes)	US\$/Km	13-16
Total Transaction Cost	US\$/ton	19-26.1
Total Transaction Cost (Official)	US\$/ton	14-18
Total Transaction Cost (Unofficial)	US\$/ton	5-8.1

7. Ways to Remove Impediments: Lesson from International Experience

To efficient border crossing, international experience in cross border management basically suggests following 3 methods: capital investment, new legislation and regulatory reform. Capital investment was the key component of the strategy for developing the Pan-American Highway, but its performance suffered from lack of attention given to the regulatory reform and legislation to facilitate cross-border movements. The Northern and Central Corridors in East Africa initially relied on investment but have since focused on legislation and regulatory reform to facilitate the movement of goods on the road and rail infrastructure. On the other hand, EU relied on legislation to implement strategies for development of the trans-European transport network.

One of the best options for increasing efficiency of clearing import and export cargoes is to relocate the clearance procedures away from the border. Indeed this is one of the basic insights of the EU's program. Inspections of truck registration, driver's licenses and certificate for road-

worthiness can be conducted along the corridor but away from the border as part of the domestic program of roadside inspections. Train inspection can take place at marshalling yards where they are supposed to stop, instead of border crossing points. Cargo inspection and clearance procedures can be relocated at inland bonded warehouses, container depots and dry ports. This approach was pioneered to alleviate congestion in international seaports but is now being adapted for imports arriving through land borders in Europe and transition economies. It allows movement of goods under bond from the border to inland customs facilities or special economic zones or other enclaves that are granted duty free status. This can include allowing cargo to be cleared at factories. This is one way to decongest border points.

Capital investment at border point is costly for developing countries like India or Nepal. Indeed, none of the countries has fund to undertake at official designated 27 border points. What has happened in reality is capital investment at few of the main border points like Rauxal, Biratnagar, Bhairahawa. However, the volume of trade has grown significantly faster than the capacity development. Consequently it has not helped much in reducing the congestion at border points. In India, it has become increasingly difficult to acquire land for any project. While the traders would like facilities to be developed (increased capacity of ware house, cold chain facility, space of parking, etc), it is very difficult to acquire land at congested border town like in Rauxal. In fact in pocket of West Bengal, it has even become difficult to obtain land for installing a tower for high tension cable! Thus any capital investment that would require land acquisition is subject to problem. So, regulatory reform, new legislation are the avenues through which border points can be decongested.

The cargo movement by rail is a welcome development. However given the shortage of wagon, it is difficult to expect that rail would replace truck in a major way in respect of cargo movement. Thus, it is likely that in short/medium run, cargo movement by road would be the preferred medium of transport between India and Nepal. It is best to improve the procedure in a least cost method.

The electronic data interchange facility whether ICEGATE in India or ASYCUDA++ in Nepal still needs improvement. Though filing of the declaration can be done online, a hard copy of the declaration is generated by the system and signed for a variety of legal and other requirements both for the importer and the customs. In effect, this leads to higher transaction cost and do not remove the scope of facilitation payments. Also capacity of server needs to be increased so that link failure does not occur.

Custom officials take extra effort to collect excise and other duties from traders exporting goods to Nepal. In the end, the collected duty is paid to Government to Nepal by India. It seems

that the custom officials at the lower end are not aware about this aspect in the India-Nepal treaty. This is a cumbersome procedure of giving aid. More gain would be realised if custom officials are less vigil in collecting excise duty.

The time limit for 72 hours for allowing Indian truck to go to Nepal and vice-versa is not sufficient for cargo to unload and cross the border. It is an one sided gain for the Indian truckers as it is still possible for Indian truckers to unload cargo and come back within 72 hours. By contrast, it is not possible for Nepalese trucker to avail of 72 hours limit to unload cargo in destinations in India and come back. It is best that time restriction is abolished. Mostly likely, this restriction has existed because of lobbing by trucker in either countries and load/unloading activities is a source of employment generation.

India and Nepal allows movement of national persons, which is the strongest form of barriers in the globalised word. Yet, movement of truck is not allowed. This is a bit absurd.

An alternative feasible way could be that vehicles would be registered in countries, obtaining the relevant licenses, paying the applicable taxes and having the necessary insurances. To an extent, this already happens in the case of Afghanistan and Pakistan. This system can be introduced for trucks in India and Nepal so that they can move without hassles between India and Nepal. Cargo flights between Nepal and Indian metros are fewer than required.

To enable cross border movement of truck, the key issue is framing effective liabilities issues. A special problem for cross-border trades is the liability in the event that cargo is lost or damaged. This is addressed at a national level by requiring transport operators or shippers to provide insurance for the cargo. For efficient corridor operations, it is important to have a regional insurance program that covers both the transport units and their cargo while transiting the corridor.

In addition to coverage for loss or damage of cargo, there is also a need for coverage of the liability for the taxes and duties on international cargo that in moving through a country under customs bond. For European road transport, this concern has been addressed through a self-insurance program managed by transport associations as part of the TIR convention coordinated by a secretariat in the UN/Economic Commission for Europe. Under this convention, the goods are transported under a bond covering possible duties. The transporter carries a carnet that is presented to customs at each border crossing. A similar kind of arrangement can be taught for India-Nepal trade.

Security concerns might be raised about foreign trucks driving in India. This could be addressed by the dual registration of semi-trailers. The semi-trailer would be delivered to the

border by one tractor unit and then hauled by a tractor unit of the other country. Similar arrangements often exist in many parts of the world.

An alternative to the trailer interchange or through movement of trucks would be containers or some form of swap body which can be shifted quickly and cheaply from one vehicle to another. It is not a solution to the problem but would help reduce the costs of the present arrangements. More generally, containerization has many advantages in trade logistics and their use on intra-regional routes would help avoid several of the unnecessary costs imposed by the present system. Containers from India are already used in bilateral trade with Nepal. This practice may be used in other interchange points.

1. Measures to Reduce Impediments

We have discussed the various impediments in India-Nepal trade. We have also refereed to international experiences of ways to reduce impediment. In the end, all these need to be judged from the feasibility aspect, the time span of implementation and the cost involved in it. Below, we provide some concluding remarks on short-term and long-term measures to reduce impediments.

Short-term Measures

- The electronic data interchange facility whether ICEGATE in India or ASYCUDA++ in Nepal still needs improvement. It needs to be completely e-gateway. The capacity of the server on the Indian side needs to be improved so that network problem does not occur.
- To streamline leading/unloading operation, more cranes with higher capacity is needed at Rauxal
- To ease congestion at Rauxal, it would be useful to have traffic attendant to ensure parking of trunks in an organised way.
- More vigilance operation would help to curb incidence of bribes
- The condition of road leading to LCS at Rauxal should be repaired
- Vigilant action by senior officials would help to ensure that officials at the lower end are on their during the entire office hours.
- Uninterrupted power supply would help to increase the efficiency of the LCS.
- There should not be any time limit for cross-country movement of truck
- It is prudent to recognise by either country laboratory in the exporting country who can
 issue certificate for food safety. It would significantly reduce waiting time at the border
 for the arrival of test report.

- The practice of systematic risk assessment of consignment checking should be encouraged
- The segregation of traffic near LCS would help to reduce congestion

Long-term Measures

- Cargo movement by rail should be encouraged
- Large X-ray Machine for container checking would be useful.
- Capital investment at the border points towards development of integrated check post at more interchange point is welcome. However given the finance required, how far it is plausible is subject to question
- Instead of increased capital investment, the best way to reduce congestion at the border is by focusing on legislation and regulatory reform for seamless movement of goods on the road and rail.
- The best options for increasing efficiency of clearing import and export cargoes is to relocate the clearance procedures away from the border. Inspections of truck registration, driver's licenses and certificate for road-worthiness can be conducted along the corridor but away from the border as part of the domestic program of roadside inspections. Train inspection can take place at marshalling yards where they are supposed to stop, instead of border crossing points.
- If movement of natural person is allowed between India and Nepal, there is no justification for restricting inter-country truck movement.
- In the long run, both countries should follow TIR system for inter-country cargo movement.
- There is scope for improvement of condition of road in either country.

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Annex – 1 Exports to Nepal (Values in US \$ Million)

S.N o.	HS Code	Commodity	2006-2007	2007-2008
1	1	Live animals.	8.05	9.56
2	2	Meat and edible meat offal.	0.1	0.24
3	3	Fish and crustaceans, molluscs and other aquatic invertebrates.	0.34	0.77
4	4	Dairy produce; birds' eggs; natural honey; edible prod. Of animal origin, not elsewhere spec. Or included.	4.97	6.83
5	5	Products of animal origin, not elsewhere specified or included.	0.03	0.07
6	6	Live trees and other plants; bulbs; roots and the like; cut flowers and ornamental foliage.	0.05	0.18
7	7	Edible vegetables and certain roots and tubers.	15.84	14.99
8	8	Edible fruit and nuts; peel or citrus fruit or melons.	7.88	12.82
9	9	Coffee, tea, mate and spices.	13.76	17.81
10	10	Cereals.	39.04	74.31
11	11	Products of the milling industry; malt; starches; inulin; wheat gluten.	1.48	0.93
12	12	Oil seeds and olea. Fruits; misc. Grains, seeds and fruit; industrial or medicinal plants; straw and fodder.	7.68	16.53
13	13	Lac; gums, resins and other vegetable saps and extracts.	0.46	0.46
14	14	Vegetable plaiting materials; vegetable products not elsewhere specified or included.	0.2	0.41
15	15	Animal or vegetable fats and oils and their cleavage products; pre. Edible fats; animal or vegetable waxes.	0.57	0.95
16	16	Preparations of meat, of fish or of crustaceans, molluscs or other aquatic invertebrates	0	0
17	17	Sugars and sugar confectionery.	6.24	5.48
18	18	Cocoa and cocoa preparations.	1.41	1.66
19	19	Preparations of cereals, flour, starch or milk; pastrycooks products.	7.39	10.65
20	20	Preparations of vegetables, fruit, nuts or other parts of plants.	2.25	3.34
21	21	Miscellaneous edible preparations.	2.02	3.06
22	22	Beverages, spirits and vinegar.	0.43	1.21
23	23	Residues and waste from the food industries; prepared animal foder.	9.77	12.8
24	24	Tobacco and manufactured tobacco substitutes.	6.97	13.25
25	25	Salt; sulphur; earths and stone; plastering materials, lime and cement.	51.43	59.45
26	26	Ores, slag and ash.	2.39	3.53
27	27	Mineral fuels, mineral oils and products of their distillation; bituminous substances; mineral waxes.	385.13	529.53
28	28	Inorganic chemicals; organic or inorganic compounds of precious metals, of rare-earth metals, or radi. Elem. Or of isotopes.	5.9	12.24
29	29	Organic chemicals	7.33	11.92
30	30	Pharmaceutical products	51.45	64.49
31	31	Fertilisers.	1.71	4.8
32	32	Tanning or dyeing extracts; tannins and their deri. Dyes, pigments and other colouring matter; etc.	4.33	7.16
33	33	Essential oils and resinoids; perfumery, cosmetic or toilet preparations.	10.6	14.64

S.N o.	HS Code	Commodity	2006-2007	2007-2008
34	34	Soap, organic surface-active agents, washing preparations, lubricating preparations, artificial waxes, prepared waxes, polishing or scouring prep.	2.28	2.99
35	35	Albuminoidal substances; modified starches; glues; enzymes.	1.01	1.55
36	36	Explosives; pyrotechnic products; matches; pyrophoric alloys; certain combustible preparations.	0.23	0.31
37	37	Photographic or cinematographic goods.	0.09	0.17
38	38	Miscellaneous chemical products.	6.61	9.72
39	39	Plastic and articles thereof.	21.9	42.39
40	40	Rubber and articles thereof.	10.02	12.15
41	41	Raw hides and skins (other than furskins) and leather	0.01	0.07
42	42	Articles of leather, saddlery and harness ;travel goods, etc	0.29	0.44
43	43	Fur skins and artificial fur, manufactures thereof.		0
44	44	Wood and articles of wood; wood charcoal.	1.23	2.71
45	45	Cork and articles of cork.	0.08	0.28
46	46	Manufactures of straw, of esparto or of other plaiting materials; basketware and wickerwork.	0.06	0.04
47	47	Pulp of wood or of other fibrous cellulosic material; waste and scrap of paper or paperboard.		0.01
48	48	Paper and paperboard; articles of paper pulp, of paper or of paperboard.	10.82	15.87
49	49	Printed bookds, newspapers, pictures and other products of the printing industry; manuscripts, typescripts and plans.	2.29	3.55
50	50	Silk	0.02	0.1
51	51	Wool, fine or coarse animal hair, horsehair yarn and woven fabric.	0.41	0.54
52	52	Cotton.	18.04	65.25
53	53	Other vegetable textile fibres; paper yarn and woven fabrics of paper yarn.	1.11	8.57
54	54	Man-made filaments.	2.08	5.36
55	55	Man-made staple fibres.	0.82	18.52
56	56	Wadding, felt and nonwovens; spacial yarns; twine, cordage, ropes and cables and articles thereof.	0.58	0.91
57	57	Carpets and other textile floor coverings.	0.29	8.08
58	58	Special woven fabrics; tufted textile fabrics; lace; tapestries; trimmings; embroidery.	0.44	0.41
59	59	Impregnated, coated, covered or laminated textile fabrics; textile articles of a kind suitable for industrial use.	0.14	0.23
60	60	Knitted or crocheted fabrics.	0.71	1.17
61	61	Articles of apparel and clothing accessories, knitted or corcheted.	0.65	1.31
62	62	Articles of apparel and clothing accessories, not knitted or crocheted.	1.12	2.5
63	63	Other made up textile articles; sets; worn clothing and worn textile articles; rags	2.18	3.45
64	64	Footwear, gaiters and the like; parts of such articles.	1.76	1.72
65	65	Headgear and parts thereof.	0.14	0.09
66	66	Umbrellas, sun umbrellas, walking-sticks, seat-sticks, whips,riding-crops and parts thereof.	0.06	0.06
67	67	Prepared feathers and down and articles made of feathers or of down; artificial flowers; articles of human hair.	0.04	0.05
68	68	Articles of stone, plaster, cement, asbestos, mica or similar materials.	2.35	2.3

70	Ceramic products. Glass and glassware. Natural or cultured pearls, precious or semiprecious stones, pre. metals, clad with pre. metal and artcls thereof; imit. jewlry; coin. Iron and steel Articles of iron or steel Copper and articles thereof. Nickel and articles thereof. Aluminium and articles thereof. Lead and articles thereof. Zinc and articles thereof. Other base metals; cermets; articles thereof. Tools implements, cutlery, spoons and forks, of base metal; parts thereof of base metal.	1.47 4.45 0.43 30.54 9.21 2.68 0.04 2.19 0.03 0.07 0.34 0.02	1.99 7.88 1.51 81.04 15.66 3.59 0.08 5.94 0.76 12.13 0.17
71	Natural or cultured pearls, precious or semiprecious stones, pre. metals, clad with pre. metal and artcls thereof; imit. jewlry; coin. Iron and steel Articles of iron or steel Copper and articles thereof. Nickel and articles thereof. Aluminium and articles thereof. Lead and articles thereof. Zinc and articles thereof. Tin and articles thereof. Other base metals; cermets; articles thereof. Tools implements, cutlery, spoons and forks, of base metal; parts thereof of base metal.	0.43 30.54 9.21 2.68 0.04 2.19 0.03 0.07 0.34	1.51 81.04 15.66 3.59 0.08 5.94 0.76 12.13
71	stones, pre. metals, clad with pre. metal and artcls thereof; imit.jewlry; coin. Iron and steel Articles of iron or steel Copper and articles thereof. Nickel and articles thereof. Aluminium and articles thereof. Lead and articles thereof. Zinc and articles thereof. Tin and articles thereof. Other base metals; cermets; articles thereof. Tools implements, cutlery, spoons and forks, of base metal; parts thereof of base metal.	30.54 9.21 2.68 0.04 2.19 0.03 0.07 0.34	81.04 15.66 3.59 0.08 5.94 0.76 12.13
73	Articles of iron or steel Copper and articles thereof. Nickel and articles thereof. Aluminium and articles thereof. Lead and articles thereof. Zinc and articles thereof. Tin and articles thereof. Other base metals; cermets; articles thereof. Tools implements, cutlery, spoons and forks, of base metal; parts thereof of base metal.	9.21 2.68 0.04 2.19 0.03 0.07 0.34	15.66 3.59 0.08 5.94 0.76 12.13
74	Copper and articles thereof. Nickel and articles thereof. Aluminium and articles thereof. Lead and articles thereof. Zinc and articles thereof. Tin and articles thereof. Other base metals; cermets; articles thereof. Tools implements, cutlery, spoons and forks, of base metal; parts thereof of base metal.	2.68 0.04 2.19 0.03 0.07 0.34	3.59 0.08 5.94 0.76 12.13
75	Nickel and articles thereof. Aluminium and articles thereof. Lead and articles thereof. Zinc and articles thereof. Tin and articles thereof. Other base metals; cermets; articles thereof. Tools implements, cutlery, spoons and forks, of base metal; parts thereof of base metal.	0.04 2.19 0.03 0.07 0.34	0.08 5.94 0.76 12.13
76	Aluminium and articles thereof. Lead and articles thereof. Zinc and articles thereof. Tin and articles thereof. Other base metals; cermets; articles thereof. Tools implements, cutlery, spoons and forks, of base metal; parts thereof of base metal.	2.19 0.03 0.07 0.34	5.94 0.76 12.13
77	Lead and articles thereof. Zinc and articles thereof. Tin and articles thereof. Other base metals; cermets; articles thereof. Tools implements, cutlery, spoons and forks, of base metal; parts thereof of base metal.	0.03 0.07 0.34	0.76 12.13
78	Zinc and articles thereof. Tin and articles thereof. Other base metals; cermets; articles thereof. Tools implements, cutlery, spoons and forks, of base metal; parts thereof of base metal.	0.07 0.34	12.13
79 80 7 80 81 0 81 82 0 82 83 M 83 84 1 84 85 a r 85 86 6 86 87 a 87 88 A	Tin and articles thereof. Other base metals; cermets; articles thereof. Tools implements, cutlery, spoons and forks, of base metal; parts thereof of base metal.	0.34	
80 81 0 81 82 0 82 83 M 83 84 t 84 85 a 85 86 6 86 87 a 87 88 A	Other base metals; cermets; articles thereof. Tools implements, cutlery, spoons and forks, of base metal; parts thereof of base metal.		0.17
81 82 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Tools implements, cutlery, spoons and forks, of base metal; parts thereof of base metal.	0.02	
81 82 cc 82 83 M 83 84 M 1 ti 84 85 a 87 86 6 cc 86 87 a 87 88 A	of base metal.		0.03
83 84 t 84 85 a 85 86 c 86 87 a 87 88 A	NAC II II II II II II II	1.95	2.96
84 85 a r 88 87 a 88 87 88 88 88	Miscellaneous articles of base metal.	3.36	4.58
84 85 a r r 85 86 F c c s s s s s s s s s s s s s s s s s	Nuclear reactors, boilers, machinery and mechanical appliances; parts thereof.	28.85	63.22
86 87 \(\frac{1}{6} \) 87 88 \(\frac{1}{6} \)	Electrical machinery and equipment and parts thereof; sound recorders and reproducers, television image and sound recorders and reproducers, and parts.	24.08	39.08
87 88 A	Railway or tramway locomotives, rolling-stock and parts thereof; railway or tramway track fixtures and fittings and parts thereof; mechanical	0.14	0.07
	Vehicles other than railway or tramway rolling stock, and parts and accessories thereof.	57.71	111.62
00 00	Aircraft, spacecraft, and parts thereof.	0.4	1.29
88 89 8	Ships, boats and floating structures.	0	0
	Optical, photographic cinematographic measuring, checking precision, medical or surgical inst. And apparatus parts and accessories thereof;	4.13	7.96
90 91 0	Clocks and watches and parts thereof.	0.15	0.31
91 92 N	Musical instruments; parts and accessories of such articles.	0.03	0.07
92 93 A	Arms and ammunition; parts and accessories thereof.	0	0.01
93 94 s	Furniture; bedding, mattresses, mattress supports, cushions and similar stuffed furnishing; lamps and lighting fittings not elsewhere specified or inc	0.8	1.3
94 95 1	Toys, games and sports requisites; parts and accessories thereof.	0.57	0.83
95 96 N	Miscellaneous manufactured articles.	2.11	2.49
96 97 V	Works of art collectors' pieces and antiques.	0.46	0.67
		0.1	0.27
98 99 N	Project goods; some special uses.	4.39	10.26

Exchange rate: 2006-2007: 1US\$ = Rs . 45.2849; 2007-2008 : 1US\$ = Rs. 40.2410

Annex – 2 Imports from Nepal (Values in US \$ Million)

S.No.	HS Code	Commodity	2006- 2007	2007- 2008
1	4	Dairy produce; birds' eggs; natural honey; edible prod. Of animal origin, not elsewhere spec. Or included.	2.18	2.39
2	5	Products of animal origin, not elsewhere specified or included.	0.05	0.07
3	6	Live trees and other plants; bulbs; roots and the like; cut flowers and ornamental foliage.		0.01
4	7	Edible vegetables and certain roots and tubers.	5.47	4
5	8	Edible fruit and nuts; peel or citrus fruit or melons.	0.03	0.03
6	9	Coffee, tea, mate and spices.	11.8	37.98
7	10	Cereals.	0.28	0.57
8	11	Products of the milling industry; malt; starches;; wheat gluten.	0	0.01
9	12	Oil seeds and olea. Fruits; misc. Grains, seeds and fruit; industrial or medicinal plants; straw and fodder.	2.07	3.68
10	13	Lac; gums, resins and other vegetable saps and extracts.	0.01	
11	14	Vegetable plaiting materials; vegetable products not elsewhere specified or included.	1.98	1.72
12	15	Animal or vegetable fats and oils and their cleavage products; pre. Edible fats; animal or vegetable waxes.	38.8	49.6
13	16	Preparations of meat, of fish or of crustaceans, molluscs or other aquatic invertebrates		0
14	17	Sugars and sugar confectionery.	0.93	1
15	18	Cocoa and cocoa preparations.		0.01
16	19	Preparations of cereals, flour, starch or milk; pastrycooks products.	1.6	6.84
17	20	Preparations of vegetables, fruit, nuts or other parts of plants.	1.17	0.36
18	21	Miscellaneous edible preparations.	0.27	1.86
19	22	Beverages, spirits and vinegar.	16.57	27.89
20	23	Residues and waste from the food industries; prepared animal fodder.	3.93	11.39
21	25	Salt; sulphur; earths and stone; plastering materials, lime and cement.	14.13	16.41
22	27	Mineral fuels, mineral oils and products of their distillation; bituminous substances; mineral waxes.	0.01	0
23	28	Inorganic chemicals; organic or inorganic compounds of precious metals, of rare-earth metals. Elem. Or of isotopes.		0.01
24	29	Organic chemicals	11.18	4.82
25	30	Pharmaceutical products	4.32	5.99
26	32	Tanning or dyeing extracts; tannins and their derivatives. Dyes, pigments and other colouring matter; paints and ver; putty and other mastics; inks.	4.16	9.75
27	33	Essential oils and resinoids; perfumery, cosmetic or toilet preparations.	18.32	16.61
28	34	Soap, organic surface-active agents, washing preparations, lubricating preparations, artificial waxes, prepared waxes, polishing or scouring prep.	1.05	6.91
29	35	Albuminoidal substances; modified starches; glues; enzymes.		0.15
30	38	Miscellaneous chemical products.	19.39	19.23
31	39	Plastic and articles thereof.	25.67	61.76
32	40	Rubber and articles thereof.	0.18	0.33
33	41	Raw hides and skins (other than furskins) and leather	3.49	5.14
34	42	Articles of leather, saddlery and harness ;travel goods, handbags and similar cont.articles of animal gut(other than silk-worm)gut.		0
35	43	Furskins and artificial fur, manufactures thereof.	0.01	
36	44	Wood and articles of wood; wood charcoal.	3.13	3.15
37	45	Cork and articles of cork.	0	

S.No.	HS Code	Commodity	2006- 2007	2007- 2008
38	46	Manufactures of straw, of esparto or of other plaiting materials; basketware and wickerwork.	0.04	0.05
39	47	Pulp of wood or of other fibrous cellulosic material; waste and scrap of paper or paperboard.	0	0.09
40	48	Paper and paperboard; articles of paper pulp, of paper or of paperboard.	1.61	1.97
41	49	Printed books, newspapers, pictures and other products of the printing industry; manuscripts, typescripts and plans.	0.09	0.17
42	50	Silk	0.41	0.36
43	51	Wool, fine or coarse animal hair, horsehair yarn and woven fabric.	0.02	0.11
44	52	Cotton.	0	0.24
45	53	Other vegetable textile fibres; paper yarn and woven fabrics of paper yarn.	7.2	11.27
46	54	Man-made filaments.	10.44	25.48
47	55	Man-made staple fibres.	17.07	47.03
48	56	Wadding, felt and non-wovens; special yarns; twine, cordage, ropes and cables and articles thereof.	3.98	13.84
49	57	Carpets and other textile floor coverings.	0.38	0.49
50	58	Special woven fabrics; tufted textile fabrics; lace; tapestries; trimmings; embroidery.	0.42	0.66
51	60	Knitted or crocheted fabrics.	6.25	7.99
52	61	Articles of apparel and clothing accessories, knitted or corcheted.	0.97	0.6
53	62	Articles of apparel and clothing accessories not knitted or crocheted.	8.04	9.51
54	63	Other made up textile articles; sets; worn clothing and worn textile articles; rags	1.66	15.61
55	64	Footwear, gaiters and the like; parts of such articles.	2.86	5.16
56	65	Headgear and parts thereof.	0	
57	66	Umbrellas, sun umbrellas, walking-sticks, seat-sticks, whips,riding-crops and parts thereof.		0.02
58	68	Articles of stone, plaster, cement, asbestos, mica or similar materials.	0.97	2.15
59	69	Ceramic products.	0	0.01
60	70	Glass and glassware.	0.04	0.01
61	71	Natural or cultured pearls, precious or semiprecious stones, pre.metals, clad with pre.metal and artcls thereof; imit.jewlry; coin.	0	0
62	72	Iron and steel	18.91	95.37
63	73	Articles of iron or steel	11.46	44.3
64	74	Copper and articles thereof.	5.06	22.91
65	76	Aluminium and articles thereof.	9.45	14.55
66	79	Zinc and articles thereof.		0.32
67	80	Tin and articles thereof.	0.1	
68	81	Other base metals; cermets; articles thereof.		0.01
69	82	Tools implements, cutlery, spoons and forks, of base metal; parts thereof of base metal.	0.02	0.02
70	83	Miscellaneous articles of base metal.	0.22	0.08
71	84	Nuclear reactors, boilers, machinery and mechanical appliances; parts thereof.	1.52	0.6
72	85	Electrical machinery and equipment and parts thereof; sound recorders and reproducers, television image and sound recorders and reproducers, and parts.	3.39	3.69
73	87	Vehicles other than railway or tramway rolling stock, and parts and accessories thereof.	0	0.88
74	88	Aircraft, spacecraft, and parts thereof.	0	0.28

S.No.	HS Code	Commodity	2006- 2007	2007- 2008
75	90	Optical, photographic cinematographic measuring, checking precision, medical or surgical inst. And apparatus parts and accessories thereof;	0	0.15
76	91	Clocks and watches and parts thereof.	0	0.01
77	94	Furniture; bedding, mattresses, mattress supports, cushions and similar stuffed furnishing; lamps and lighting fittings not elsewhere specified or inc	0.3	1.27
78	95	Toys, games and sports requisites; parts and accessories thereof.	0.01	0.03
79	96	Miscellaneous manufactured articles.	0	0
80	97	Works of art collectors' pieces and antiques.	0.29	0.33
81	98	Project goods; some special uses.	0	0
82	99	Miscellaneous goods.	0.34	0.77

Exchange rate: 2006-2007: 1US\$ = Rs. 45.2849; 2007-2008 : 1US\$ = Rs. 40.2410