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Transit and Border Trade Barriers in South Asia

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1. INTRODUCTION

The world has been witnessing the 25th anniversary of the advent of the South Asian Association of Regional Cooperation (SAARC) in 2009. With the conversion of South Asia Preferential Trade Agreement (SAPTA) into South Asia Free Trade Agreement (SAFTA) in 2006, South Asia is now looking for a Customs Union in 2015 and an Economic Union in 2020. Except Afghanistan and Bhutan, rest South Asian countries are members of the World Trade Organization (WTO) and have been practicing the Most Favored Nation (MFN) principles with an exception of India and Pakistan. It is envisaged that SAFTA will lead the growth in intraregional formal trade from US$11 billion in 2007 to US$40 billion by 2015 (RIS 2008). However, in reality, South Asia is far from realizing its trade potential. One of the critical factors preventing South Asia from achieving its full potential is the absence of regional transit trade.[2] Unlike the European Union, South Asian countries do not have a regional transit arrangement, although partial transit exists for landlocked countries such as Afghanistan, Bhutan, and Nepal.

In order to reduce regional and multilateral trade transportation costs, the South Asian countries have been trying to integrate the region through improved connectivity including a regional transit arrangement. A regional transit means a stronger multilateral transit. However, the challenges are numerous. A number of studies have shown that the economies with geographical contiguity could potentially benefit substantially from higher trade, provided trade and transport barriers are removed through a regional transit arrangement.[3] Some earlier studies identified several challenges related to the implementation of GATT (General Agreement on Tariffs and Trade) commitments in transit and trade facilitation in the context of South Asia.[4] However, the empirical understanding of the relationships between trade barriers and trade flows in context of South Asia remains nascent.

The objectives of this paper are two-fold: first, to review the South Asian countries bilateral, regional and multilateral commitments in transit, and second, to assess the performance of some important land customs stations (LCS) dealing overland trade in eastern South Asia sub-region, that is, Bangladesh, Bhutan, India, and Nepal. The rest part of the paper is organized as follows. The profile of intraregional transit trade is briefly presented in Section 2, while Section 3 discusses the current transit arrangement in the sub-region. Section 4 presents WTO rules on transit and a review of the commitments made by the South Asian countries on transit. To understand whether the border corridors and customs stations are equipped to cope up the changing trade environment, a field survey has been carried out among selected LCSs in both sides of the border in the sub-region. The results of the field survey are briefly presented in Section 5 together with a discussion of the performance of LCSs and the constraint of transit trade in the sub-region. Conclusions are drawn in Section 6.

2. TRANSIT TRADE IN EASTERN SOUTH ASIA

The importance of tariffs as barriers to trade has gradually declined in South Asia. However, high tariffs still exist for certain sensitive products, and there is a strong presence of nontariff barriers (NTBs) including high border transaction costs in the region.[5] In particular, high transportation costs act as a serious constraint to enhancing merchandise trade flow in the region (De 2008, 2009a). In addition, poor institutions (for example, lack of e-filing of trade documents), inadequate infrastructure (for example,

lack of a modern warehouse or container handling facility at border), and the absence of a regional transit trade (virtually in the entire region) are prohibiting the growth of trade in South Asia.[6]

In South Asia, Afghanistan, Bhutan and Nepal are landlocked countries and depend solely on transit through neighboring countries. They are confronted with a variety of practical constraints that increase the logistics costs of their international trade. Landlocked developing countries, as a group, are among the poorest of developing countries, with limited capacities and dependence on a very limited number of commodities for their export earnings. About 38 countries are currently landlocked with no access to seaports (Uprety 2006). Lack of territorial access to seaports, remoteness and isolation from world markets have contributed to their relative poverty, substantially inflating transportation costs and lowering their effective participation in international trade (UNCTAD 2005). For example, Bhutan and Nepal rely heavily on India's eastern coast for their international trade. Due to several bottlenecks, including those visible at border-crossing corridors and transit ports, Bhutan and Nepal face substantial trade costs, which otherwise could be avoided if a regional transit trade regime is restored in South Asia (UNCTAD 2004). The trade-reducing effect is strongest for transport-intensive activities (De 2009b). Most, if not all, landlocked countries in South Asia are commodity exporters. The very high transport costs that they must bear constrain export development since that burden limits the range of potential exports and markets in which goods can be competitively and profitably traded. The price of imports tends to increase because of high transit transportation costs (De 2009b). Nonetheless, the present weak and inadequate transit arrangement in South Asia is disappointing.

In eastern South Asia, Nepal and Bhutan depend on India for their regional and international trade. In particular, Nepal is increasingly dependent on India for 68 percent of its exports and 62 percent of its imports per year (Table 6.1a). Relatively larger Bangladesh sources about 13 percent of its global imports from Bhutan, India, and Nepal, but its exports to those countries are low, compared to its imports (Table 6.1b). The interesting development is that Bangladesh's trade with Bhutan has witnessed a steep rise in recent years, with this entire trade being carried overland using the India–Bangladesh–Bhutan transit corridor. India's trade with adjacent countries such as Bhutan and Nepal, with which India has bilateral transit agreements, has also increased, again being carried overland (Table 6.1c). India's trade with Bangladesh has also risen phenomenally, despite the fact that the two countries do not have

TABLE 6.1a Nepal's Trade with India and Bangladesh

	US$ million		
	1991	*2000*	*2006*
Exports to:			
Bangladesh	0.12	1.90	3.24
India	17.45	307.20	562.98
Total (above two countries)	17.57	309.10	566.22
Share in global exports (%)	6.83	42.89	68.25
Imports from:			
Bangladesh	12.70	8.10	1.45
India	85.01	574.20	1,481.51
Total (above two countries)	97.71	582.30	1,482.96
Share in global imports (%)	19.54	37.08	61.85

Source Calculated based on International Monetary Fund 2008.

TABLE 6.1b Bangladesh's Trade with India, Nepal, and Bhutan

	US$ million		
	1991	*2000*	*2006*
Exports to:			
Bhutan	0.30	0.90	4.08
India	22.8	50.13	146.93
Nepal	11.54	1.32	1.32
Total (above three countries)	34.64	52.35	152.33
Share in global exports (%)	2.05	0.94	1.19
Imports from:			
Bhutan	3.90	4.53	12.95
India	189.49	945.45	2,230.77
Nepal	0.14	3.98	3.16
Total (above three countries)	193.53	953.96	2,246.88
Share in global imports (%)	5.66	10.60	12.56

Source Calculated based on International Monetary Fund 2008.

TABLE 6.1c India's Trade with Bangladesh, Bhutan, and Nepal

	US$ million		
	1991	*2000*	*2006*
Exports to:			
Bangladesh	324.56	860.33	1,967.8
Bhutan	1.20	2.73	118.03
Nepal	77.28	143.4	1,346.83

(*Table 6.1c Continued*)

(*Table 6.1c Continued*)

	US$ million		
	1991	*2000*	*2006*
Total (above three countries)	403.04	1,006.46	3,432.66
Share in global exports (%)	2.25	2.36	2.79
Imports from:			
Bangladesh	5.73	79.85	128.43
Bhutan	0.50	20.33	104.30
Nepal	19.19	238.48	619.28
Total (above three countries)	25.42	338.66	852.01
Share in global imports (%)	0.13	0.67	0.46

Source Calculated based on International Monetary Fund 2008.

any bilateral transit arrangement. In contrast, bilateral trade between Bangladesh and Nepal witnessed a marginal rise between 2000 and 2006, carried overland through a tiny corridor between India, Nepal, and Bangladesh in 2006, amounted to some US$4.5 million.

A trilateral transit understanding between Bangladesh, India, and Nepal is in place in order to facilitate the overland trade between Nepal and Bangladesh through India. Bhutan's trade is again India-centric. Bhutan sources about 75 percent of its imports from India and sells almost 88 percent of its exports to that country (Table 6.1d). To be noted, trade among the countries in the eastern South Asia sub-region is not always a transit trade. For example, India's bilateral trade with Bangladesh, Bhutan, and Nepal cannot be termed as transit trade, whereas the same between Bangladesh, Bhutan and Nepal through India can be seen as transit trade

TABLE 6.1d Bhutan's Trade with India

	Trade with world		*Trade with India*			
	Value		*Value*		*Share*	
	Exports	*Imports*	*Exports*	*Imports*	*Exports*	*Imports*
Year	*(US$ million)*		*(US$ million)*		*(%)*	
2001	126.23	227.20	118.79	176.62	94.11	77.74
2002	79.13	253.88	70.50	191.40	89.09	75.39
2003	90.64	292.32	83.96	258.49	92.63	88.43
2004	209.03	471.05	196.15	257.62	93.84	54.69
2005	287.75	430.50	251.95	323.35	87.56	75.11
2006	350.00	320.00	n.a.	n.a.	n.a.	n.a.

Source Department of Revenue and Customs 2007.
Note n.a. = Data not available.

since the trading countries in that particular case are not geographically adjacent. Similarly, the trade of Bhutan and Nepal with the rest of the world through another country (here, India) can also be termed as transit trade.

2.1 Transit Trade Profile

Until recently, transit trade in South Asia was not in the forefront of regional and multilateral cooperation. However, increasing trade volume in recent years has forced the countries in South Asia to be more lenient with transit trade, regional and otherwise. The transit trade in the eastern South Asia sub-region can be grouped into two categories: *(a)* intra-sub-regional and *(b)* extra-sub-regional. Tables 6.2a and 6.2b show the

TABLE 6.2a Intra-sub-regional Transit Trade

Exporting country	*Partner*	*Transit through*	*US$ million*		
			1991	*2000*	*2006*
Bangladesh	Bhutan, Nepal	India	11.840	2.220	5.400
			(0.232)	(0.015)	(0.018)
Bhutan	Bangladesh, Nepal	India	5.110	5.530	13.230
			(3.060)	(1.565)	(1.975)
Nepal	Bangladesh, Bhutan	India	0.260	2.960	5.440
			(0.034)	(0.129)	(0.169)
Total			17.210	10.710	24.070

Sources Calculated based on International Monetary Fund (2008) and Bhutan's Department of Revenue and Customs (2007).

Note Numbers in parentheses are the shares of individual countries in their respective world trade.

TABLE 6.2b Extra-sub-regional Transit Trade

Exporting country	*Partner*	*Transit through*	*US$ million*		
			1991	*2000*	*2006*
Nepal	Rest of the world[a]	India	654.98	1,409.60	1,182.79
			(86.47)	(61.53)	(36.65)
Bhutan	Rest of the world[a]	India	25.09	49.17	98.72
			(15.02)	(13.91)	(14.73)
Total			680.07	1,458.77	1,281.51

Sources Calculated based on International Monetary Fund (2008) and Bhutan's Department of Revenue and Customs (2007).

Note [a] Rest of the world excluding India. Numbers in parentheses are the shares of individual countries in their respective world trade.

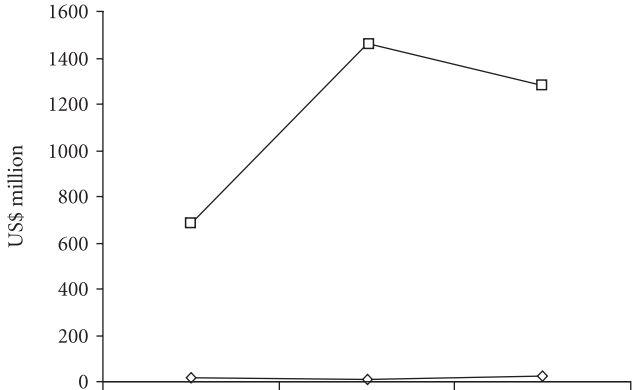
volume of intra-sub-regional and extra-sub-regional transit trade for Bangladesh, Bhutan, and Nepal that passes through India. The following observations are worth noting.

First, intra- and extra-sub-regional transit trade in eastern South Asia increased substantially from 1991 to 2006 (Figure 6.1), where extra-sub-regional transit trade grew much faster than intra-sub-regional transit trade. Currently, about 2 percent of transit trade in eastern South Asia is conducted within the sub-region, while the remaining 98 percent is extra-sub-regional.

Second, the volume of intra-sub-regional transit trade is much smaller than extra-sub-regional transit trade in eastern South Asia. In 2006, countries in eastern South Asia recorded a total of US$24.07 million intra-sub-regional transit trade, which was about 1.88 percent of total extra-sub-regional transit trade (US$1.28 billion in 2006) of the sub-region.

Third, countries in eastern South Asia have very limited intra-sub-regional transit trade, compared with extra-sub-regional transit trade. In terms of their global trade, intra-sub-regional transit trade has been miniscule. Bhutan is the only country which has more than 55 percent of intra-sub-regional transit trade, contributing about 2 percent of

FIGURE 6.1 Trends in Intra- and Extra-sub-regional Transit Trade



	1991	2000	2006
—◇— Intra-subregion	17.21	10.71	24.07
—□— Extra-subregion	680.07	1458.77	1281.51

Sources Calculated based on International Monetary Fund (2008) and Bhutan's Department of Revenue and Customs (2007).

Bhutan's international trade (US$13.23 million in 2006). The remaining two countries, that is, Bangladesh and Nepal, have negligible transit trade within the sub-region.

Fourth, compared with intra-sub-regional transit trade, extra-sub-regional transit trade of eastern South Asia is very high. Extra-sub-regional transit trade is driven by Nepal. About 37 percent of Nepal's global trade (US$1.18 billion) is transit trade, conducted outside eastern South Asia, whereas in the case of Bhutan it is about 15 percent. The falling shares of extraregional transit trade (as a percentage of global trade) of both those countries (down from 86.47 percent in 1991 to 36.65 percent in 2006 in the case of Nepal, and from 15.02 percent in 1991 to 14.73 percent in 2006 in the case of Bhutan) indicate that bilateral trade with neighboring India is not only growing rapidly but is also replacing the extra-sub-regional transit trade of Bhutan and Nepal.

Therefore, despite an absolute rise in intra- and extra-sub-regional transit trade in eastern South Asia in recent years, intra-sub-regional transit trade is still miniscule, compared with the extra-sub-regional transit trade volume. At the same time, India's bilateral trade with Bhutan, Bangladesh and Nepal is not only growing fast but is also replacing the extra-sub-regional transit trade volume of Bhutan and Nepal.

3. REVIEW OF TRANSIT ARRANGEMENT IN EASTERN SOUTH ASIA

Cross-border infrastructure alone would not facilitate the movement of goods and vehicles between countries if non-physical impediments are not removed (Subramanian and Arnold 2001; UNCTAD 2007). Trade facilitation can only serve its purpose if based on harmonized legislation, institutions, and practices, at sub-regional, regional and international levels. In spite of consistent efforts and achievements over the years, significant differences continue to exist between South Asian countries in terms of their legislation, institutional arrangements and practices. Operational standards that differ between neighboring countries lead to lack of traffic and transit rights and barriers to the movement of goods and people, having a negative impact on countries' trade and economies. As goods begin to move along international transport corridors, the need for harmonization of laws and processes amongst a larger group of countries becomes clear. International conventions related to transport are essential

in facilitating the movement of goods, especially at border crossings, by reducing procedures and formalities and time required.

3.1 Bilateral Understandings

In eastern South Asia, all countries except Bhutan are members of WTO. Trade in eastern South Asia is conducted on an MFN basis, following multilateral (GATT), regional (SAFTA), and bilateral trade agreements. As Table 6.3 shows—with the exception of trade between India and Bangladesh, and between Bhutan and Nepal—bilateral trade agreements among the remaining countries in the sub-region offer mutual understanding on transit. The movement of goods and vehicles is controlled through national legislation as well as a series of bilateral transit and trade agreements and, in certain cases, from "ad-hoc" arrangements deriving from intent between certain country pairs for mutual cooperation.[7] An example of this mutual cooperation is the movement of Bhutanese goods through Indian territory, which is governed by the stipulations contained in the "Agreement on Trade and Commerce" between the two countries and an attached Protocol.[8]

TABLE 6.3 Trade and Transit Arrangements in Eastern South Asia

Agreement	*Type*	*MFN trade*	*MFN transit*	*GATT signatories*
India–Bangladesh	Bilateral	Yes	No	Yes
India–Nepal	Bilateral	Yes	Yes	Yes
India–Bhutan	Bilateral	Yes	Yes	India—member; Bhutan—observer
India–Pakistan	Bilateral	No	No	Yes
Pakistan–Afghanistan	Bilateral	Yes	Yes	Pakistan—member; Afghanistan—observer
Bangladesh–Nepal	Bilateral	Yes	Yes	Yes
Bangladesh–Bhutan	Bilateral	Yes	Yes	Bangladesh—member; Bhutan—observer
Bhutan–Nepal	Bilateral	Yes	No	Nepal—member; Bhutan—observer

Source Compiled by the authors.

3.1.1 Bangladesh–India Agreements

Bilateral trade between India and Bangladesh is conducted under the provisions of the prevailing India–Bangladesh Trade Agreement, which was first signed on 28 March 1972. Under the agreement, both countries

provide MFN treatment to each other except in the case of transit trade. India and Bangladesh signed a bilateral agreement entitled "Protocol on Inland Water Transport and Trade" on 4 October 1999, and which was renewed in 2007, for bilateral and transit trade between the two countries. This agreement derives directly from the provisions of the aforesaid India–Bangladesh Trade Agreement. Besides, they also signed agreements related to the operation of railways for the purpose of trade in goods and services between the two countries. Under these agreements, both countries agree to operate trains (goods/passengers) through three specific border routes.[9]

3.1.2 India–Nepal Agreements

India and Nepal signed a bilateral trade agreement, the "Treaty of Trade," on 6 December 1991. The validity of this Treaty of Trade in its existing form stands extended for until 5 March 2012. A Protocol attached to this Agreement defines the operational modalities including the list of bilateral trade routes. They also signed an Agreement on 6 December 1991 to control unauthorized trade, which sets out certain procedures for the control and prevention of smuggling. India and Nepal also signed a "Treaty of Transit" on 5 January 1999, resulting which India provides maritime transit and supporting services and facilities to Nepal at Kolkata and Haldia ports, which are located in the State of West Bengal, India. A Protocol attached to the Treaty of Transit specifies detailed operational modalities, including entry and exit points to and from India for the transit trade of Nepal. In addition, both countries signed a Memorandum to the Protocol that specifies the detailed procedures to be applied to imports to, and exports from, Nepal. Besides, India and Nepal entered into a Rail Services Agreement for operating and managing 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 as well as between stations on Indian Railways and Birgunj via Raxaul, for bilateral trade.

3.1.3 Bhutan–India Agreement

India and Bhutan signed a bilateral trade agreement in 1995 that sets out the broad contour of free trade between the two countries. The Protocol to this trade agreement specifies the bilateral trade routes (including transit) and detailed trading procedures. Interestingly, there are no references to

transport, although the common understanding is that the free movement of vehicles between the two countries is accommodated by the Agreement. India provides transit to Bhutan through Kolkata and Haldia ports.

3.1.4 Bangladesh–Nepal Agreement

Nepal and Bangladesh do not have a bilateral trade agreement. Instead, they have a transit agreement, signed on 2 April 1976, and a protocol attached to this transit agreement. This transit agreement and the protocol provide transit rights to Nepal in order to access overseas markets (third country markets), but they do not deal with their bilateral overland trade. In order to operate the bilateral transit trade, Bangladesh and Nepal signed an agreement entitled "Operational Modalities for an Additional Transit Route between Nepal and Bangladesh," which provides terms for the use of Banglabandha (Bangladesh)–Phulbari (India)–Khakarbitta (Nepal) as a transit corridor for bilateral trade. India provides transit to Nepal and Bangladesh exclusively for their overland bilateral trade, but not for their extraregional transit trade.

3.1.5 Bangladesh–Bhutan Agreement

Bangladesh and Bhutan signed a bilateral trade agreement on 12 May 2003 granting most favored nation (MFN) status to each other's trade. The Protocol attached to this bilateral trade agreement defines Burimari (Bangladesh)—Changrabandha (India)—Jaigaon (India)—Phuentsholing (Bhutan) as the transit route for bilateral trade between Bangladesh and Bhutan. India provides transit for the bilateral overland trade between the two countries.

3.2 Regional Understanding

SAARC has the Inter-Governmental Group (IGG) to provide advice on the facilitation of transportation in South Asia. A succession of IGG proceedings shows that harmonization of standards and mutual recognition in the transport sector has been the key issue in South Asia. In recent years, there have been some important developments in regional transportation in South Asia. As per the directives of the fourteenth SAARC Summit, held in New Delhi in April 2007, the Ministers of Transport of SAARC countries for the first time met in New Delhi on 31 August 2007. Taking note of the

recommendations of the SAARC Regional Multimodal Transport Study, the SAARC Transport Ministers agreed to reach a Regional Transport and Transit Agreement as well as a Regional Motor Vehicles Agreement in 2008.[10] However, South Asia has yet to reach a regional transport and transit arrangement for cross-border movement of goods and vehicles.

3.3 Multilateral Understandings

In recognition of the fact that harmonized transport facilitation measures at the national and international levels are a prerequisite for enhancing international trade and transport along road and rail routes of international importance, United Nations (UN) offer seven international conventions, which were originally developed under the auspices of the Economic Commission for Europe (ECE)[11] set out a basic framework for the cross-border movements of goods and vehicles such as:

1. The Convention on Road Traffic, 1968.
2. The Convention on Road Signs and Signals, 1968.
3. The Customs Convention on the International Transport of Goods under Cover of TIR Carnets (TIR Convention), 1975.
4. The Customs Convention on the Temporary Importation of Commercial Road Vehicles, 1956.
5. The Customs Convention on Containers, 1972.
6. The International Convention on the Harmonization of Frontier Controls of Goods, 1982.
7. The Convention on the Contract for the International Carriage of Goods by Road (CMR), 1956.

United Nations Economic and Social Commission for Asia and the Pacific (UNESCAP) at its 48th session adopted Resolution 48/11 of 23 April 1992 on road and rail transport modes in relation to facilitation measures. It recommended that the countries in the region, if they had not already done so, consider the possibility of acceding to aforesaid seven international conventions in the field of land transport facilitation. But, there has been a less concerted effort to accede to the United Nations conventions in South Asia. The sub-regional extent of accession to these Conventions is shown in Table 6.4. Most of the South Asian countries have yet to ratify these international conventions for cross-border movements of goods and vehicles.

TABLE 6.4 International Conventions and South Asian Countries[a]

Convention	*Afghanistan*	*Bangladesh*	*Bhutan*	*India*	*Maldives*	*Nepal*	*Pakistan*	*Sri Lanka*
Convention on Road Traffic (1968)	No	Yes	No	Yes	No	No	Yes	Yes
Convention on Road Signs and Signals (1968)	No	No	No	Yes	No	No	Yes	No
Customs Convention on Temporary Importation of Commercial Road Vehicles (1956)	Yes	No	No	No	No	No	No	No
Customs Convention on Containers (1972)	No	No	No	No	No	No	No	No
Convention on International Transport of Goods under Cover of TIR Carnets (1975)	Yes	No	No	No	No	No	No	No
Convention on the Contract for the International Carriage of Goods by Road (1956)	No	No	No	No	No	No	No	No
Convention on the Harmonization of Frontier Controls of Goods (1982)	No	No	No	No	No	No	No	No

Source Compiled based on UNESCAP (2007).
Note [a] As of December 2007.

In South Asia, Bangladesh and Sri Lanka have signed the "Convention on Road Traffic," while India and Pakistan have signed both the "Convention on Road Traffic" and "Convention on Road Signs and Signals." Bhutan, Maldives and Nepal have not signed any one these seven United Nations Conventions. Except for Afghanistan, no South Asian countries have signed the "Customs Convention on the Temporary Importation of Commercial Road Vehicles" or the "Convention on the International Transport of Goods under TIR Carnets." Accession to different versions of Conventions is likely to undermine facilitation objectives. For example, many countries are contracting parties to the Convention on Road Traffic (1949), but have not ratified the new version (1968) of the Convention. The Convention on Road Traffic (1949) is still valid in relations between the contracting parties to it.

The principles of the Customs Transit Procedures, which are covered in detail in Specific Annexure E, Chapter E.I of the Revised Kyoto Convention, provide for a safe, secure and standard transit procedure. The World Customs Organization (WCO) encourages its members to accede to international Conventions related to transit such as the TIR Convention as well as instruments provided by WCO on customs transit that facilitate transit procedures for temporary admission of goods. WCO suggests further that if members are not in a position to accede to these Conventions, when drawing up multilateral/bilateral agreements they should take into account customs transit, standards and recommended practices mentioned in the revised Kyoto Convention.

Finally, what appears is that transit in eastern South Asia (and subsequent overland transportation) is undertaken through bilateral trade agreements, with India providing overland transit to Bangladesh, Nepal, and Bhutan for their bilateral trade, and maritime transit to Nepal and Bhutan for their international trade.

4. TRANSIT AND THE WTO RULES: MULTILATERAL AND REGIONAL COMMITMENTS ON TRANSIT OF SOUTH ASIAN COUNTRIES

In November 2001, the Doha Ministerial Conference called for negotiations on trade facilitation after the 2003 WTO Ministerial Meeting, subject to agreement on the modalities of negotiation.[12] The current mandate

of the Negotiating Group for Trade Facilitation (NGTF) established in 2004 is primarily to clarify and improve Articles V (Freedom of Transit), Article VIII (Fees and Formalities Connected with Importation and Exportation) and Article X (Publication and Administration of Trade Regulations) of GATT 1994. The NGTF has also focused on identifying special and differential treatment for developing and least developed countries apart from exploring areas for technical assistance and support for capacity building by the developing and the least developed country members.

GATT Article V (Freedom of Transit) sets out the basic requirement of freedom of transit through the most convenient route and further requires that no discrimination be made on the basis of flag of a vessel, place of origin, departure, entry, exit or destination. It also calls on parties not to discriminate on the basis of ownership of goods or means of transport. Further, Article V stipulates the obligation not to impose any unnecessary delays or restrictions on transit. It also requires members to impose reasonable fees and charges that would be non-discriminatory and limited to the cost of the service provided.

1. Simplification of Procedures for Transit

WTO members have made suggestions on facilitating transit through the simplification of documentary requirements and procedures required for transit. Members have suggested that transit fees, simplification of procedures for transit purposes, and so on, bear a close resemblance to provisions of Article VIII the submissions made by members to the Council on Article VIII automatically apply to transit. In this context, members have suggested that specific guidelines are needed on how unnecessary procedures can be reduced or simplified. In addition, requirements and procedures for transit should be less onerous than those for importation. Other suggestions have included the introduction of mechanisms that would institutionalize cooperation among the member countries, harmonize transit policies between members and enable the sharing of information among customs authorities, as these could further facilitate transit. Recognizing the need for simplification of transit procedures, the "Indo-Nepal Treaties of Trade, and of Transit, and the Agreement for Cooperation to Control Unauthorized Trade" was revised in 1996 allowing for new procedures to be applied in the clearance of Nepalese containerized traffic in transit to and from Nepal.

2. Exceptions to the Principle of Non-discrimination for Sensitive Items and Goods Requiring Transhipment

WTO members have pointed out that it may not always be possible to apply the principle of non-discrimination to all types of consignments. Certain goods may be subject to special provisions. However, WTO members should consider the publication of the list of such "sensitive items." Similarly, it has been pointed out that in cases where the possibility of the illegal release of transit goods exists (as in the case of landlocked countries), more sophisticated risk management techniques may be required. Also, goods in transit that require transhipment may need additional inspection (in relation to those that do not require transhipment) to prevent the smuggling of goods into the transit country.

While India allows transit facilities to Nepal, it has faced the problem of leakage of third country goods into its markets (Chaturvedi 2007). This issue has come up time and again with the Indian authorities. In fact, the issue of unauthorized trade has been addressed in the bilateral agreements between India and Nepal signed since 1961. The Indian Customs authorities maintain a list of sensitive items so that such goods are kept under closer scrutiny during transit from Indian territory. However, such a list, although circulated within customs, is not publicly available. Similarly, goods for transhipment require additional inspection to prevent smuggling. A large proportion of goods in transit from India to Nepal first arrives by sea at the Indian port of Kolkata and is then transhipped by road and rail to Nepal. India could accept the proposal that goods in transit requiring transhipment may need additional inspection.

3. Regional Transit Arrangements

The existing Article V requires WTO members to operate national transit schemes but does not recognize the issue of transit at the regional level. Members have pointed out that the solution to transit can be found through regional cooperation as can be witnessed in some of the existing international and regional transit instruments, such as the TIR Convention, the European Convention on common transit; the ASEAN Framework Agreement on the Facilitation of Goods in Transit, and United Nations instruments related to transit.

India plays a dual role in transit, both as a provider of transit facilities to Nepal and as a seeker of transit facilities from Bangladesh. It is in India's interest to enter into a bilateral transit arrangement with Bangladesh,

similar to that with Nepal, so that it can access the remote areas of the north-eastern region at lower costs and time. However, Bangladesh has been reluctant to offer transit facilities to India as it fears leakage of Indian goods into Bangladesh. As the proposals on transit would address the issue of leakage of goods by allowing members to implement additional inspections of such goods and by requesting members to publish a list of sensitive items, India and Bangladesh could take into account the suggested measures in framing a bilateral treaty on transit.

4. Use of International Standards

WTO members have suggested the use of international standards for transit. Members could consider the possibility of accession to various instruments related to transit such as: *(a)* the Customs Convention on the International Transport of Goods under cover of TIR Carnets (TIR Convention), Geneva, 14 November 1975; *(b)* the Customs Convention on the ATA Carnet for the Temporary Admission of Goods (ATA Convention), Brussels, 6 December 1961; and *(c)* the Convention on Temporary Admission, Istanbul, 26 June 1990 (as per Annexure A as it relates to ATA Carnets).

As presented earlier, the TIR Carnet is a road transport document that allows containerized and, in some cases, bulk cargo to move through simplified and harmonized administrative formalities. The ATA Carnet is designed to facilitate the importation, irrespective of the means of transport, of goods that are granted temporary duty-free admission (including transit, importation for home use and temporary admission). Although they would simplify transit considerably, the use of international standards such as ATA Carnets or TIR Carnets is absent in the South Asian countries (Table 6.4). India, Bangladesh, and Nepal have not acceded to the TIR Convention or the ATA Convention. India uses ATA Carnet, for a very limited purpose, mostly for duty-free temporary admission of imports. It would be extremely difficult for countries such as India, Nepal, and Bangladesh to adhere to the requirements of the TIR Convention (in terms of specifications for vehicles and procedures). Also, at present, it is difficult to envisage the possibility of IRU recognizing an association in a member country that would accept the IRU obligations and conditions. At this stage, these countries would be unable to meet the rigorous requirements of the Convention as it would require enormous resources and a fairly large timescale. India could, however, accept these international standards on a "best endeavor basis."

4.1 Multilateral and Regional Commitments

Trade facilitation issues have received growing attention in several regional cooperation initiatives around the world. Although GATT Article V assumes greater significance in South Asia, the freedom of transit has been completely ignored in regional trade agreements in that region. Table 6.5 compares the provisions of trade facilitation measures in regional and bilateral trade agreements in South Asia. It shows that neither SAFTA nor bilateral FTAs adequately address the issue of transit. In sharp contrast, the India–Singapore CECA has several provisions on transit. For example, it provides provisions for non-discrimination, no additional fees and documentation when the goods are in transit. There is also clear provision for coordination and cooperation to safeguard the interests of exporters and importers. Evidence is given below on the application of GATT Article V in South Asian countries.

4.1.1 Bangladesh

In Bangladesh, Article V has immense relevance since it has the potential to offer transit facilities to nearby landlocked countries and a landlocked region with a country. Nepal and Bhutan have shown keenness to use two seaports in Bangladesh, that is, Chittagong and Mongla. However, it is unclear as to what specific measures have been taken by Bangladesh as part of the Article V (for example, those related to documentation, security and guarantees, seals and identifications, and charges for transit goods).

TABLE 6.5 Matters Related to Goods in Transit

Trade facilitation measures	*SAFTA*	*India–Sri Lanka FTA*	*Pakistan–Sri Lanka FTA*	*India–Singapore CECA*
Non-discrimination	No	No specific provisions	No specific provisions	Transit goods would not face discrimination
Discipline on fees and charges	No	No specific provisions	No specific provisions	No additional fees charged
Discipline on transit formalities and documentation requirements	No	No specific provisions	No specific provisions	No additional documentation required (Article 3.14)
Coordination and cooperation	Provisions regarding consignment	No specific provisions	No specific provisions	Mechanism in place

Source Chaturvedi 2007.

The private sector's role in supplementing efforts to implement Article V is also unclear. However, Bangladesh has established an extensive network of institutions for border agency coordination (Bhattacharya and Hossain 2006).

4.1.2 India

On Article V, India has extended transit to landlocked countries such as Bhutan and Nepal. Table 6.6 provides the status of trade facilitation measures on Article V in India. The Indian customs authorities require a declaration of all the transit goods as per the standard declaration form available on site as well as at the relevant offices. Customs is making an effort to enhance the level of coordination among the various border agencies. As different degrees of security concerns are present at different points in the country there is a limited use of the simplified transit declaration. Customs is also working on simplifying procedures established

TABLE 6.6 WTO Trade Facilitation Proposals and Status of Trade Facilitation Measures on Transit (Article V) in India

Groups of measures falling under those areas	*Status in India*
Strengthened non-discrimination	√
Disciplines on fees and charges	
Publication of fees and charges and prohibition of unpublished ones	√
Periodic review of fees and charges	√
More effective disciplines on charges for transit	√
Periodic exchanges between neighboring authorities	√
Disciplines on transit formalities and documentation requirements	
Periodic review	√
Reduction/simplification	√
Harmonization/standardization	X
Promotion of regional transit arrangements	√
Simplified and preferential clearance for certain goods	X
Limitation of inspections and controls	X
Sealing	X
Cooperation and coordination on document requirements	√
Monitoring	√
Bonded transport regime/guarantees	X
Improved coordination and cooperation	
Among authorities	√
Between authorities and the private sector	√

Source Chaturvedi 2006, based on WTO TN/TF/W/43/Rev.4.
Note √ represents trade facilitation measures introduced. The absence of measures is indicated by X.

for the authorized consignors involved in the transit procedures. India does not charge duty or tax on transit goods. Cash deposits are not required for goods in transit, and securities and guarantees are discharged as soon as the necessary requirements are met (Chaturvedi 2006).

4.1.3 Nepal

Transit of goods through India from or to adjacent countries is regulated in accordance with the bilateral trade and transit treaties and is subject to such restrictions as may be specified by the Directorate General of Foreign Trade in accordance with international Conventions. In order to tackle abuse of the customs transit corridors, the Government of India issues a list of sensitive commodities at periodic intervals, keeping domestic market requirements as the criteria. At present, nine such commodities are identified as sensitive items. In the recent past, the Directorate of Revenue Intelligence has caught several consignments worth millions of rupees that were being directed for domestic consumption in India. This has become a major issue, especially with Nepal.

Many features of Article V are not applicable to Nepal as it is a landlocked country. However, Nepal has launched several measures to facilitate transit trade destinations. It has signed a trade transit treaty with India for easy access to Kolkata and Haldia seaports. A standardized customs transit declaration document has also been introduced, which is in operation with India.

The foregoing discussion suggests that GATT Article V is of major significance for South Asia. First, SAFTA and bilateral FTAs could be amended in line with GATT Article V. Second, the WTO trade facilitation programs should be amended in order to strengthen the "Freedom of Transit" rights. According to Chaturvedi (2007), the current WTO trade facilitation program may have to go beyond the current mandate and take into account specific WTO commitments that may emerge during the ongoing negotiations as per GATT Articles V, VIII, and X. There are five broad concerns in Article V that are addressed by the various proposals, that is, matters related to transit goods, disciplines on fees and charges, disciplines on transit formalities, documentation requirements, and improved cooperation among authorities (WTO 2005a). However, the key obstacles to implementing Article V are related to the different standards and regulations adopted by various neighboring countries, inadequate transport infrastructure and different levels of automation

(UNESCAP 2007). The lack of common legal approaches and border-crossing formalities also hamper effective implementation. The lack of transparency in transit fees and charges that are sometimes discriminatory is another major challenge.

Among the key proposals received on Article V, the issues covered are transit regime, procedures and technical assistance. There are suggestions for developing a transit regime based on international standards as well as adherence to international instruments for dealing with goods in transit for which regional transit cooperation agreements may be put in place. The proposals emphasize reasonable, non-discriminatory and simplified procedures for cross-border movement of vehicles. It has also been suggested that the principles of simplification, standardization and transparency be followed in implementing Article V (WTO 2008). Efforts may also be made: *(a)* to minimize the burden on cargo in transit as well as the differentiation of cargo undergoing transhipment and *(b)* to review the present documentary requirements and fees for non-transhipped goods in transit as well as those for goods in transit with transhipment. Another suggestion has been to introduce risk management for authorized traders. Maximum technical assistance is possibly required for Article V as landlocked countries (for example, those in South Asia) are at different levels of development. The technical assistance and capacity-building programs need to take this factor into account. The different levels of ICT compatibility, trained manpower and security concerns are the key challenges.

5. TRANSIT AND TRADE BARRIERS AT STRATEGIC BORDER CROSSINGS: FIELD SURVEY RESULTS

In South Asia, much of the trade between India and its neighboring countries is taking place along land routes, particularly through the road corridors. However, as discussed above, there is no direct cross-border movement of road freight transportation between them, except in few cases. At the Bangladesh–India border, goods are required to be transhipped as no direct through-road transport movement across the border is allowed.[13] However, the potential for freight movement by road between the geographically adjacent countries of South Asia is tremendous, once such a through transport movement can be facilitated (ADB 2005).

In view of role of GATT Article V (Freedom of Transit) and the required facilitation, we attempt to understand the extent of transit systems in place in selected border-crossing corridors in eastern South Asia. A systematic comparative analysis is carried out of the transit arrangements and the subsequent mechanisms in place in the sub-region. This has been done through an extensive field survey, conducted in five important border-crossing corridors in Bangladesh, Bhutan, India, and Nepal (Appendix 6.1).

A non-parametric exercise is conducted to capture the performance of LCSs. The analysis is based on both secondary and primary data. Five land border-crossing corridors (and corresponding land customs stations) connecting the four countries in the sub-region are selected. Appendix 6.1 details the five border corridors that are the potential transit points falling within the Asian Highway (AH) and/or SAARC Regional Multimodal Transport corridors. The purpose of the field survey is to understand the state of affairs of the LCS in the five border-crossing corridors in the sub-region. The selection of the border corridors is based on: *(a)* their potential to provide direct connectivity by enabling through movement across the sub-region; *(b)* the ability to provide access for landlocked countries to seaports or other major transport networks; and *(c)* the potential for providing shorter routes that would allow major transportation cost savings.

Table 6.7 provides a comparison of performances of six pairs of LCSs falling in five border corridors in the sub-region. This is the first time that both sides of the border in eastern South Asia sub-region are surveyed. At a glance, these 14 LCSs have many things in common as well as several dissimilarities. While there is no mismatch in the timing of operations of customs and immigration among the LCSs, the days of operation differ between India and Bangladesh. Apart from immigration, customs and security, which are an essential part of all LCSs, the other facilities in both the physical and non-physical categories vary across the LCSs. For example, except for Birganj none of the LCSs have an exclusive container-handling yard at the border. Similarly, except for Petrapole none has effectively adopted the fast track cargo clearance system. In the case of e-governance in customs, Petrapole and Raxaul use ICEGATE software, while Benapole and Birganj use ASYCUDA. Deviating from its main usage, the field survey finds that ASYCUDA in Nepal has been used for the calculation of revenue and other administrative purposes. Customs formalities in the remaining LCSs are mostly being handled manually. The existing Electronic Data Interchange (EDI) system also suffers from certain shortcomings that add

TABLE 6.7 Status of Trade Facilitation Services at Border

	LCS Pair 1		*LCS Pair 2*		*LCS Pair 3*		*LCS Pair 4*		*LCS Pair 5*		*LCS Pair 6*	
Location	*Petrapole*	*Benapole*	*Changrabandha*	*Burimari*	*Jaigaon*	*Phuentsholing*	*Phulbari*	*Banglabandh*	*Panitanki*	*Karkabitta*	*Raxaul*	*Birganj*
Country	*India*	*Bangladesh*	*India*	*Bangladesh*	*India*	*Bhutan*	*India*	*Bangladesh*	*India*	*Nepal*	*India*	*Nepal*
Working time (per day)	09.00 – 17.00	09.00 – 17.00	09.00 – 17.00	09.00 – 17.00	09.00 – 17.00	09.00 – 17.00	09.00 – 17.00	09.00 – 17.00	09.00 – 17.00	09.00 – 17.00	09.00 – 17.00	09.00 – 17.00
Working days (per week) for immigration	7	7	7	7	7	7	7	7	7	7	7	7
Working days (per week) for customs	7	6	7	6	7	7	7	6	7	7	7	7
Physical												
Customs	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Immigration	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes
Security	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Bank	Yes[a]	Yes[a]	Yes	Yes[b]	Yes[a]	Yes[a]	No	No	Yes[b]	Yes[b]	Yes[a]	Yes[a]
Health	Yes	Yes	No	No	Yes	Yes	No	No	No	No	Yes	Yes
Warehouse	Yes	Yes[a]	Yes	Yes	Yes[a]	Yes[a]	Yes[a]	Yes	Yes[a]	Yes[a]	Yes[a]	Yes[a]
Weight bridge	Yes	Yes	Yes	No	Yes	Yes	Yes	No	Yes	No	Yes	Yes
Container handling yard	No	No	No	No	No	No	No	No	No	No	No	Yes[b]
Currency exchange	Yes[a]	Yes[a]	Yes	No	Yes[a]	Yes[a]	No	No	No	No	Yes[a]	Yes[a]

(*Table 6.7 Continued*)

(*Table 6.7 Continued*)

	LCS Pair 1		*LCS Pair 2*		*LCS Pair 3*		*LCS Pair 4*		*LCS Pair 5*		*LCS Pair 6*	
Location	*Petrapole*	*Benapole*	*Changrabandha*	*Burimari*	*Jaigaon*	*Phuentsholing*	*Phulbari*	*Banglabandh*	*Panitanki*	*Karkabitta*	*Raxaul*	*Birganj*
Country	*India*	*Bangladesh*	*India*	*Bangladesh*	*India*	*Bhutan*	*India*	*Bangladesh*	*India*	*Nepal*	*India*	*Nepal*
Waiting room	Yes	Yes	No	No	No	Yes	No	No	No	No	No	No
Shops, hotels, and restaurants	Yes	Yes	Yes	Yes	Yes	Yes	Yes[a]	No	Yes	No	Yes	Yes
Non-physical												
e-commerce of Customs	Yes (ICEGATE)	Yes (ASYCUDA)	No	No	No	No	No	No	No	No	Yes (ICEGATE)[c]	Yes (ASYCUDA)[d]
Internet	Yes	No	No	No	No	No	No	No	No	No	No	No
Telecom	Yes	Yes	Yes[a]	Yes[e]	Yes[a]	Yes[a]	Yes[e]	Yes[e]	Yes[a]	Yes[e]	Yes[a]	Yes[a]
Fast Track Cargo Clearance	Yes[f]	No	No	No	No	No	No	No	No	No	No	No

Source Compiled from the field survey results.

Notes
[a] Insufficient.
[b] Located few kilometers away from the border.
[c] Only for export cargo, import from Nepal handled manually.
[d] Only for revenue calculation and not for customs operation.
[e] Insufficient and not for all.
[f] For selected goods.

to the transaction costs. For example, although 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 for customs. Other supporting documents are also submitted for verification by government authorities and their agents. Thus, many shortcomings associated with documentation continue to exist under the present EDI system.

Procedural complexities very often work as deterrents to India–Bangladesh trade.[14] The customs offices in eastern South Asia still require excessive documentation, especially for imports, which must be submitted in hard copy forms.[15] An Indian exporter to Bangladesh has to obtain 330 signatures on 17 documents at several stages.[16] While most of these documents are standard for international trade, the two governments tend to add requirements that are purely local in nature. The bureaucratic response to problems and anomalies has been to introduce new procedures and documents to avoid their recurrence. This introduces a significant increase in the cost of doing business, but, in many cases, has little effect on the cause of the problems. Because of this complex, lethargic and primitive procedure, pilferage continues to rise. This often changes the composition and direction of trade in eastern South Asia.

Most of the LCSs suffer from limited warehouse capacity and the lack of banking and foreign exchange facilities. In some cases, banks are located several kilometers from the border (for example, Burimari, Panitanki and Karkabitta). Adequate foreign exchange facilities are also unavailable at these borders. Some LCSs do not even have a foreign exchange facility, such as Burimari and Banglabandh in Bangladesh, Karkabitta in Nepal, and Phulbari and Panitanki in India.

Except for Kolkata and Haldia seaports, none of the LCSs has adequate capacity (in both software and hardware terms) to deal with goods in transit. In most cases, officials are unaware of their countries' commitment under GATT Article V and the obligations therein. It appears that South Asian countries have promoted bilateral transit agreements/arrangements that are not consistent with all other commitments on trade facilitation and with the objective of reducing trade barriers. Moreover, it appears that eastern South Asian countries did not take full account of international standards and instruments when designing and applying those agreements or arrangements. Therefore, they need to cooperate and coordinate in designing and applying bilateral and regional transit agreements/arrangements.

5.1 Benchmarking the Land Customs Stations

One of the common features of the border corridors surveyed in this study is that the present trade flow is very uneven across LCSs. A regional transit arrangement in South Asia would likely enhance regional trade volume, resulting in the redistribution of trade and traffic among the corridors. Efficient corridors are thus very important in order to maximize the benefits of regional connectivity. At the same time, inefficient corridors require much attention in order to put them in the peer group and to facilitate trade along that particular corridor.

The need for seamless cross-border infrastructure, both hardware and software, is a long-standing demand in South Asia. Failure in responding to this demand has actually slowing the South Asian trade. Therefore, one of the objectives of the trade facilitation would be to eliminate the asymmetry among the corridors in anticipation of a seamless regional connectivity. An evaluation of the efficiency of the border corridors would thus help in understanding the performance level of the border corridors in South Asia.

In this paper, the relative efficiency of border corridors is measured with the help of Data Envelopment Analysis (DEA). DEA is a linear programming-based technique for measuring the relative performance of organizational units where there is a presence of multiple inputs and outputs. There is reasonable consensus among economists that the mobility of goods, services and labor across regions depends largely on the quality and quantity of various integrated facilities available, and not directly and solely on the amount of investment or capital stock. Naturally therefore, the use of DEA is likely to better reflect the input–output relationship relative to capital in such a context. In the DEA methodology, formerly developed by Charnes et al. (1978), efficiency is defined as a weighted sum of outputs to a weighted sum of inputs, where the weights structure is calculated by means of mathematical programming, and constant returns to scale (CRS) are assumed.[17]

Moreover, performance evaluation and benchmarking are a widely-used method for identifying and adopting best practices as a means of improving performance and increasing productivity, and are particularly valuable when no objective or engineered standard is available to define efficient and effective performance. Benchmarking is often used in managing service operations, because service standards (benchmarks) are more difficult to define than manufacturing standards. Difficulties are further enhanced when the relationships between the inputs and the outputs are

complex and involve many unknown trade-offs. For example, DEA is a tool that can evaluate performance and benchmarking of seaport services in the context of multiple inputs and outputs.

First, we measure the TC (transaction cost) of trade at each border point through a field survey. It is calculated for each year by using equation (1)

$$TC_{ijl}^{t} = \sum_{k=1}^{n} X_{k}^{l}, \tag{1}$$

where Xlk represents transaction costs components observed at the border l, that is, *(a)* loading/unloading fees, *(b)* parking fees, *(c)* speed-up payments, and *(d)* clearing agent's fees, all collected through the field survey.

Second, the TT (transaction time) of trade at each border point is calculated for each year by using equation (2)

$$TC_{ijl}^{t} = \sum_{k=1}^{n} Y_{k}^{l}, \tag{2}$$

where Ylk represents transaction time components observed at the border l, that is, *(a)* parking time, *(b)* time taken for customs clearance, and *(c)* loading/unloading time, collected through field survey. Both TC and TT are calculated based on field survey.[18]

The DEA model considered here uses data of TC and TT for exports for 2001 to 2006 of four eastern South Asian countries and considers both sides of the border at the bilateral level. By taking TC and TT, a major portion of trade costs at the border has been covered. Table 6.8 provides the basic assumptions of DEA, while Table 6.9 lists the estimated efficiency scores of land customs stations. The following observations are worth noting.

TABLE 6.8 Basic Assumptions in the DEA Model

Particulars	*Assumptions*
Decision-making units (DMU)	Nine land customs station
Inputs	Transaction cost and transaction time, measured for each DMU (land customs station)
Output	Exports (bilateral) handled by each DMU
Time period	2001–06
Model specification	Farrell input-saving measure of technical efficiency with constant returns to scale (CRS) and strong disposability of inputs

TABLE 6.9 DEA Scores

DMU (land customs stations)	*Country*	*2001*	*2002*	*2003*	*2004*	*2005*	*2006*
Petrapole	India	0.510	0.490	0.500	0.570	0.550	0.620
Benapole	Bangladesh	0.040	0.020	0.030	0.030	0.040	0.050
Raxaul	India	0.330	0.170	0.400	0.590	0.690	1.000
Birganj	Nepal	0.160	0.250	0.200	0.270	0.450	0.470
Jaigaon	India	0.320	0.830	0.610	0.740	0.560	0.520
Phuentsholing (1)	Bhutan	0.170	0.170	0.240	0.380	0.390	0.410
Phuentsholing (2)	Bhutan	0.030	0.020	0.030	0.030	0.040	0.070
Burimari	Bangladesh	0.010	0.000	0.010	0.010	0.010	0.010
Kakarvitta	Nepal	0.010	0.000	0.010	0.010	0.010	0.010
Banglabandha	Bangladesh	0.000	0.010	0.010	0.010	0.010	0.000
	Average	0.158	0.196	0.204	0.264	0.275	0.316

First, the DEA scores suggest that, among the nine LCSs, Raxaul is the only efficient LCS, while the remainder is inefficient (Figure 6.2 and Table 6.10). Opposite Raxaul is Birganj (in Nepal), which is relatively inefficient but which succeeded improving its position during 2001–06. If Birganj had been as efficient as Raxaul, this India-Nepal border corridor would have made further gains to regional trade in general and in trade between India and Nepal in particular.

FIGURE 6.2 Scatter Diagram of DEA Scores, 2001–06

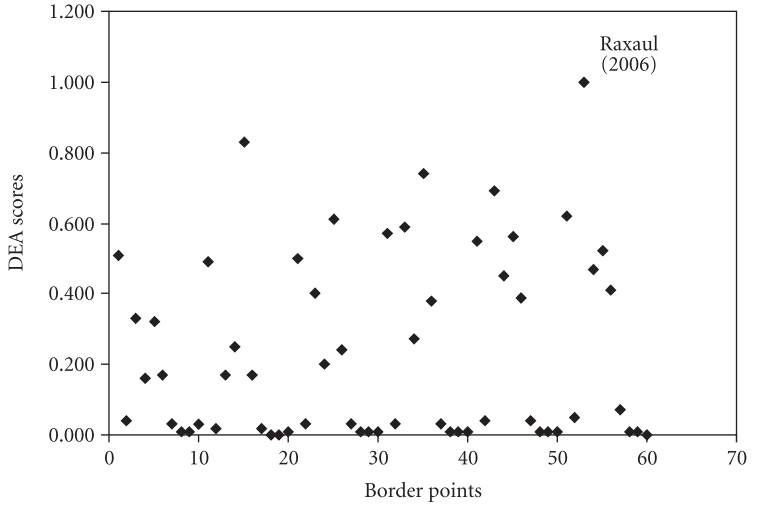


TABLE 6.10 Relative Efficiency of Land Customs Stations

Relatively efficient	*Moderately inefficient*	*Highly inefficient*
Raxaul	Birganj	Benapole
	Petrapole	Burimari
	Jaigaon	Kakarvitta
	Phuentsholing	Banglabandha

Second, Petrapole (in India), even though relatively inefficient, has improved its position. On the other side of the border, Benapole (in Bangladesh) is comparatively inefficient.

Third, the average performance of the nine border points has improved (the DEA score increased from 0.158 in 2001 to 0.316 in 2006) pointing to the fact that there has been positive development in aggregate term in border customs stations and trade facilitation.

There are indeed sizeable gains to be won by making customs points on both sides of the border efficient. The efficiency of border corridors and LCSs is an important factor in South Asia's competitiveness and its trade prospects. In order to maximize the benefits of trade liberalization in view of SAFTA and in anticipation of full regional transit arrangement, either under GATT Article V or under SAFTA, governments in South Asia should place the utmost importance on improving inefficient LCSs. If the objective is to ensure equitable growth of trade and traffic in South Asia, all the border-crossing points must improve their efficiency. Therefore, the new agenda for trade facilitation should consider measures in order to *(a)* constantly improve the performance of border corridors and LCSs and *(b)* eliminate the asymmetry between the LCSs pairs.[19]

6. CONCLUSIONS

South Asian economies are aiming to undertake trade facilitation measures that will greatly reduce current physical and non-physical barriers to trade by means of both visible infrastructure (such as multimodal corridors and terminals) and invisible infrastructure (such as reformed policies, procedures, and regulations). Due to the lack of adequate research on trade facilitation, not much information is available on the existing profile of trade facilitation measures (both at the borders and in the capital cities) in South Asia. This is an area of research that needs special attention from policy makers and researcher scholars in South Asia.

Transit is as important as trade liberalization. It is an intrinsic element of any cross-border movement of goods and vehicles, and yields significant influence on national and regional economies. The present arrangement of transit in South Asia is bilateral where India provides overland transit to Bangladesh, Nepal and Bhutan for their bilateral trade, and maritime transit to Nepal and Bhutan for their international trade. With the increasing emphasis on administrative reform, governance and security, there is an urgent need for a regional transit agreement. Among the major causes of high trade transaction costs in eastern South Asia are the cumbersome and complex cross-border trading practices, which also increase the possibility of corruption. The goods carried by road in South Asia are largely subject to transhipment at the border, which imposes serious impediments to regional and multilateral trade. The position is further compounded by lack of harmonization of technical standards. Considering the region's emergence as a free trade area from 2006 onward, a regional transit will help South Asian countries to achieve the potential benefits of moving a Customs Union in 2015 and an Economic Union in 2020.

The efficiency of border corridors is also a critical factor in a region's competitiveness and its trade prospects. Using the DEA, this paper has evaluated the efficiency of the border corridors in eastern South Asia. The average performance of the nine LCSs examined has improved over time, pointing to the fact that there has been positive development in land customs stations. However, eight of the nine LCSs surveyed were found to be still relatively inefficient (Raxaul in India being the most efficient). In order to maximize the benefits of trade liberalization, both in view of SAFTA and in anticipation of a regional transit arrangement under GATT Article V, South Asian countries should place highest priority on achieving equitable growth of trade and traffic in South Asia. It is crucial that not only all the border corridors are to be made more efficient but that an equally high level of efficiency must be achieved at all the customs stations, thereby reducing the asymmetries among the corridors.

Many of the land customs stations surveyed are inadequately equipped with information technology, and lack in coordination. "Software" aspect of trade facilitation is still important in South Asia. At the same time, to improve performance, border corridor management authorities (that is, in this case, governments) need to constantly evaluate operations or processes related to providing, marketing and selling of services to the users. Hence, it is felt that at each border a complementary and coordinated performance monitoring approach is urgently required in order to address the changing environment of global and regional trade and to achieve

sustainable improvement in competitiveness. Thus, the requisite policy agenda extends broadly to stimulating the evolution of border corridor services, promulgating new performance standards, and encouraging their implementation at both the national and regional levels.

South Asian countries have promoted bilateral transit agreements/arrangements that are not consistent with all other commitments on trade facilitation and with the objective of reducing trade barriers. Moreover, it appears that eastern South Asian countries did not take full account of international standards and instruments when designing and applying those agreements or arrangements. Therefore, they need to cooperate and coordinate in designing and applying bilateral and regional transit agreements/arrangements.

Finally, a regional transit arrangement will help South Asia to better integrate the region and also to strengthen the globalization process. The scope and issues covered under the GATT Article V, which addresses traffic in transit, have become extremely important since intraregional trade in South Asia has expanded.[20] Making transit system in South Asia, WTO offers several useful solutions.

APPENDIX 6.1

TABLE A6.1 Surveyed Border-crossing Corridors

Land corridor[a]	*Countries*	*Border-crossing corridors*	*Land customs stations (LCS) surveyed*
Lahore–New Delhi–Kolkata–Petrapole–Benapole–Dhaka (2,322 km)	Pakistan, India, Bangladesh	Petrapole (India)/Benapole (Bangladesh)	Wagah (Pakistan)/Wagah Border (India), Petrapole (India)/Benapole (Bangladesh)
Thimphu–Phuentsholing–Jaigaon–Kolkata/Haldia (760 km)	Bhutan, India	Phuentsholing (Bhutan)/Jaigaon (India), Changrabandha (India)/Burimari (Bangladesh)	Phuentsholing (Bhutan)/Jaigaon (India)
Thimphu–Phuentsholing–Jaigaon–Burimari to either Dhaka–Chittagong (966 km) or Mongla (880 km)	Bhutan, India, Bangladesh		Phuentsholing (Bhutan)/Jaigaon (India), Changrabandha (India)/Burimari (Bangladesh)

(*Table A6.1 Continued*)

(*Table A6.1 Continued*)

Land corridor[a]	*Countries*	*Border-crossing corridors*	*Land customs stations (LCS) surveyed*
Kathmandu–Kakarvitta–Phulbari–Banglabandha to either Mongla (1,362 km) or Dhaka–Chittagong (1,442 km)	Nepal, India, Bangladesh	Kakarvitta (Nepal)/ Panitanki (India), Phulbari (India)/ Banglabandha (Bangladesh)	Kakarvitta (Nepal)/ Panitanki (India), Phulbari (India)/ Banglabandha (Bangladesh)
Kathmandu–Kolkata/Haldia (1,323 km)	Nepal, India	Birgunj (Nepal)/ Raxaul (India)	Birgunj (Nepal)/Raxaul (India)

Note [a] Distances shown in this table represent the approximate lengths of the corridors.

NOTES

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2. See, for example, Ray and De (2003), World Bank (2004), Asian Development Bank (2005).
3. Refer, the Declaration of the fourteenth SAARC Summit, New Delhi, 3–4 April 2007, available at www.saarc-sec.org/main.php
4. See, for example, Polak and Heertje (1993).
5. See, for example, UNESCAP (2006, 2007), WTO (2005a, 2005b).
6. See, for example, Das and Pohit (2006), Taneja (2007).
7. See, for example, Subramanian (2001), Arnold (2007), Wilson and Ostuki (2007), to mention a few.
8. This was also reported in Padeco (2005). See, also Rahmatullah (2006).
9. The India–Bhutan Agreement of 2003 states that "there shall be free trade and commerce between the two countries" and "free movement of goods flowing between the two countries." There are no references in either the Agreement or the attached Protocol, however, to road vehicles or other forms of surface transportation, or of the rules governing the use of Indian road space by Bhutanese vehicles (and vice versa). See *Agreement on Trade, Commerce and Transit between the Government of the Republic of India and the Royal Government of Bhutan*, India–Bhutan Trade Agreement, Ministry of Commerce and Industry, Government of India, New Delhi. Available at http://commerce.nic.in/trade/bhutan.pdf (accessed on 6 October 2009).

10. The routes are Gede (India)–Darsana (Bangladesh), Singhabad (India)–Rohanpur (Bangladesh), and Agartala (India)–Akhaura (Bangladesh).
11. SAARC countries have been discussing a Regional Motor Vehicles Agreement since 2007. See the note entitled "India's Chairmanship of SAARC" issued by the SAARC Division, Ministry of External Affairs, Government of India, 22 April 2008, New Delhi.
12. Currently, there are 56 transport-related international legal instruments aimed at facilitating the movement of goods, people and vehicles across international borders, initiated by the Economic Commission for Europe.
13. WTO defines trade facilitation as "the simplification and harmonization of international trade procedures," where "[i]nternational trade procedures" are defined as the "activities, practices, and formalities involved in collecting, presenting, communicating and processing data required for the movement of goods in international trade" (WTO 2009). The objective of trade facilitation is to reduce the cost of doing business for all parties concerned by eliminating unnecessary administrative burdens associated with bringing goods and services across the borders. The definition makes it clear that trade facilitation relates to a variety of activities such as import and export procedures (customs or licensing procedures), customs valuation, technical standards, health and safety standards, administrative procedures, transportation and shipping; insurance, payment and mechanisms as well as other financial requirements, and goods in transit.
14. However, the cross-border transportation of railway freight is partially permitted between India and Pakistan and India and Bangladesh on certain routes.
15. Several studies have dealt with trade facilitation issues in the context of trade between India and Bangladesh. See, for example, Chaturvedi (2006).
16. Improvements in customs procedures have definitely reduced the amount of informal payments needed for clearing cargo. Even so, under-the-table transactions to clear exports at the borders remain high. The actual amount is negotiated between the shipper and the customs agent, with both agreeing on the amount per shipment that will be reimbursed without an invoice and which will therefore be available for paying customs officials to expedite cargo clearance.
17. Refer also De and Ghosh (2008).
18. However, Banker et al. (1984) developed a model with variable returns to scale.
19. We intentionally avoided placing the large estimated values of TT and TC and their components due to space limitation. The same is freely available at http://www.unescap.org/tid/artnet/pub/wp5608.pdf (accessed on 6 October 2009). The usual caveat is that the series has been estimated based on the field survey by interviewing the selected stakeholders, which may not necessarily match the same results tabulated by any other sources. The authors of this paper have made this database available for further research on the subject.
20. There have been some developments in eliminating the barriers at borders comprehensively. For example, the Government of India's Integrated Check Post (ICP) project is a forward-looking step, which will help improve India's border infrastructure serving its South Asian neighbors. India plans about 13 ICPs, with one on the India–Pakistan border, four on the India–Nepal border, one on the India–Myanmar border and seven on the India–Bangladesh border. The cost of setting up the 13 ICPs has been estimated at Rs 7.36 billion. Of these, it is proposed to set up the four ICPs at Petrapole, Moreh, Raxaul and Wagah in Phase I at a cost of Rs 3.42 billion. In Phase II, the remaining nine ICPs are to be established at Hili and Chandrabangha (West Bengal), Sutarkhandi (Assam), Dawki (Meghalaya), Akaura, (Tripura), Kawarpuchiah (Mizoram), Jobgani (Bihar), Sunauli (Uttar Pradesh), and Rupaidiha/Nepalganj (Uttar Pradesh) at a cost of Rs 3.94 billion. Further details are available at www.mha.nic.in

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